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### **Basic Social Policy Data**

Basic Data to Monitor Status &  
Intended Policy Effects with Focus on  
Social Sectors incorporating  
Millennium Development Goals and  
Indicators

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## **Basic Social Policy Data** Basic Data to Monitor Status & Intended Policy Effects with Focus on Social Sectors incorporating Millennium Development Goals and Indicators.

### **Abstract:**

This project was initiated as a sub-initiative under the NORAD Social Sector Initiative (SOSIT) and initially named SOSIT Basic Data. The objective was to establish a system for basic and summary information for NORAD and partner-countries to follow the effect of resources allocated to social sectors through all steps towards the final outcome and end goals. This included: overall national policies affecting resource allocation for social sectors; allocation and distribution of resources between and within sectors; access to and use of social service; outcome and achievements; poverty reduction and other end goals; and feed back to economic, human and social development.

A clear prerequisite was to follow international standards for collection, processing and dissemination of information. But if need be additional information needs were to be identified. The system should include information to follow resource allocation from policy decisions towards human welfare and quality of life, and the feed back towards economic and social development.

The adaptation line comprised reviewing well established and acknowledged indicators of the international organizations; DFID, ECOSOC, IDB, IMF, OECD/DAC, UN Population Division, UN Statistical Division, UNESCO, UNICEF, UNDP/HDR, UNFPA, WHO, and World Bank and international initiatives; IDGs and the follow up MDGs, PARIS21 and PRSPs.

We have realized that the only way to ensure timely and reliable statistics for NORAD and Norwegian Development work is through not only national cooperation but national ownership combined with institutional cooperation between South and North. This approach is to be tested in two pilot countries in phase two.

*The proposal presented included initially nine policy steps, reduced to four comprising: 1. Sector & internal sector allocation; 2. Service standard & use of services; 3. Outcome & status; and 4. Poverty reduction and other end goal impact from health, education etc. Feed back effects are then added.*

*The special feature of this focus is to present statistics following the intended policy impact along these four policy steps and finally adding feed back towards economic development.*

The document includes recommendations, statistical presentation for the 7 Norwegian development partner countries and documentation.

**Keywords:** Social policy statistics, education statistics, health statistics, water and sanitation statistics, social policy, millennium development goals, millennium development indicators, Norwegian development partner countries, PARIS21

**Acknowledgement:** This project and report was initiated under the SOSIT initiative of NORAD and financed by NORAD. We are grateful to our partners in NORAD and the series of international agencies who shared their ideas and experience with the team: DFID, ECOSOC, IDB, IMF, OECD/DAC, UN Population Division, UN Statistical Division, UNESCO, UNICEF, UNDP/HDR, UNFPA, WHO, and World Bank. We have as far as possible used their approaches but only the project team is responsible for the final approach and priorities.

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# 0. Summary

## 0.1. Introduction

This project was initiated as a sub-initiative under the NORAD Social Sector Initiative (SOSIT). The objective was to establish a system for basic and summary information for NORAD and partner-countries to follow the effect of resources allocated to social sectors through all steps towards the final outcome and end goals, as follows:

- Overall national policies affecting resource allocation for social sectors
- Allocation and distribution of resources between and within sectors
- Access to and use of social service
- Outcome and achievements
- Poverty reduction and other end goals
- Feed back to economic, human and social development

A clear prerequisite was to follow international standards for collection, processing and dissemination of information. But if need be additional information needs were to be identified. The system should include information to follow resource allocation from policy decisions towards human welfare and quality of life, and the feed back towards economic and social development.

The aim was to identify a set of indicators which were well established, easy to obtain in a regular manner, still providing the information needed.

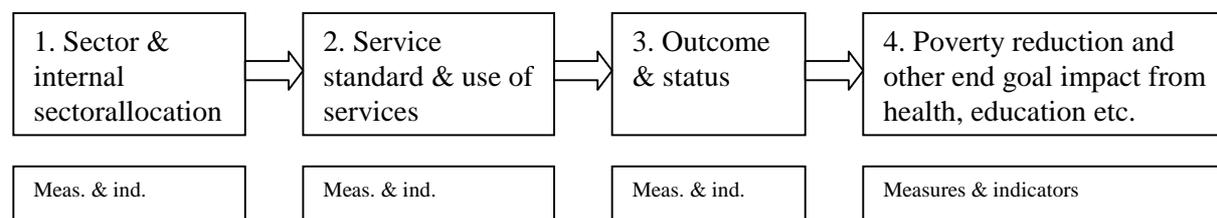
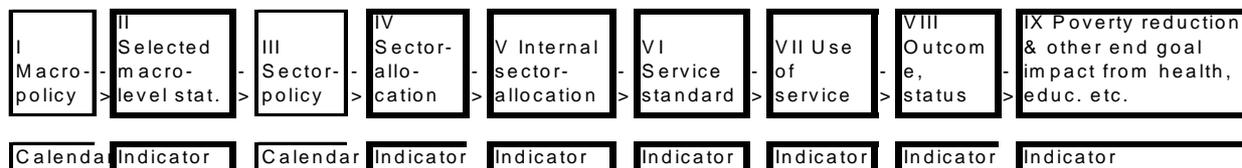
Statistics Norway found the mandate very interesting and challenging. The main challenge was clear from the outset; how to identify existing indicators which were well designed to follow both general and specific effects throughout the process from resource allocation to poverty reduction.

We started the work along two lines, a conceptual line and an adaptation of existing measures and indicators. The conceptual line was to identify the effect steps from macro policy, selected macro level statistics, sector policy, sector allocation, internal sector allocation, service standard/ access to service, use of services, outcome/ status, poverty reduction and other end goal impact of changes in health, education etc., and finally feed back to economic, social and human development.

The adaptation line comprised reviewing well established and acknowledged indicators of the international organizations. We soon learned that the time was just to ripen for a series of international indicator sets, currently summarized in the IDGs and the follow up/ slightly extended MDGs. The IDGs summarize the development goals from the UN summits in the 1990s. UN Statistical Division presented the IDGs for the UN Statistical Commission, and they were endorsed by ECOSOC (of UN), IMF, OECD/DAC, UNDP, World Bank and promoted by PARIS21. Such a thoroughly based and broad international agreement is not always the case, and made our choice to adapt to the IDGs and later on to pick up the MDGs very easy. But since the IDGs/MDGs focus on achievements and end goals rather than the process we had to identify an enlarged set of indicators.

We realized that the only way to ensure timely and reliable statistics for the needs of NORAD and Norwegian Development work was through not only national cooperation but national ownership combined with institutional cooperation between South and North.

In our proposal for a system for “Basic Social Policy Data” we have adapted to the IDGs and MDGs for overlapping issues, and also taken them further by integrating them in the policy steps. The initial nine policy steps have been reduced to four, as illustrated below.



Given the need to follow the effects we are proposing a combination of international information where each country is the unit and national information where information will be presented for geographical areas such as provinces and socio-economic groups. This will provide information for national level policy discussions and issues and has the potential to secure national interest, involvement and ownership.

## 0.2. Outline of the document

The main document comprises three parts, each consisting of two chapters, as follows:

- **Recommendations.** The initial part presents the overall recommendations. The first chapter outlines an approach with two focuses. First, to build upon a core including the International Development Goals / Millennium Development Goals and other generally accepted and applied measures and indicators. Second, to present measures and indicators step by step, while ensuring conceptual links from level to level.
- **Statistical presentation.** The second part explains why statistical information is crucial and presents illustrative tables. The set of dummy and real tables serve to demonstrate the balance between information needed to understand the issues and processes and information being available and accessible at the international level.
- **Documentation.** The third part documents international trends and issues within the international agency community and the policy of the Norwegian Ministry of Foreign Affairs including the Norwegian Agency for Development (NORAD).

## 0.3. Summary presentation of statistical relationship between resource allocation, service standard, outcome, & poverty reduction/ end goal impact

As already stressed this approach does not aim at testing any causal relationship, but has a more modest objective. We propose an approach for a joint presentation of statistical information on the development over time or across geographical and socio-economic categories for two and two steps of the policy chain from resource allocation through service standard, achievement or outcome, end goal impact and feedback.

We propose to do this by presenting two sets of statistical information, as follows:

- First, to present statistical information for each step in this policy chain: resource allocation, service standard and use, outcome and status, and human end goal impact. This presentation should include both information over time and information across geographical areas and socio-economic groups.
- Second, to present statistical information linking two and two steps.

Presentation of statistical information for each step follows a standard approach. Presentation of statistical information linking two and two steps requires some further elaboration as presented in the main chapters. The information is to be presented from two perspectives:

- country-wise, with focus on distribution over geographical areas (as provinces) and socio-economic groups (as extreme poor, moderate poor and non-poor) within a country and development over time
- comparative, with parallel focus on multiple countries and over time.

*The links between each level are presented in a graphical manner on the next page jointly for the three sectors education, health and water and sanitation.*

**INPUTS**

**Resource allocation to education sector:**

- E4.1 Public and private expenditure
- E4.2 Share of public expenditure
- E4.3 Public and private expenditure for primary education
- E4.4 Share of private expenditure to primary education

**OUTPUTS**

- Service standards and use:**
- E6.1 Percentage of school teachers who are certified to teach according to national standards
  - E6.2 Pupil-teacher ratio
  - E6.3 Access to primary school (% within 5/10/15 km)
  - E6.4 I 5/M 6 Net enrolment ratio in primary education
  - E6.5 Percentage of repeaters, primary education
  - E6.6 I 8/M 9 Ratio girls to boys net enrolment in primary education

**Outcome and status:**

- E8.1 I 6/M 7 Completion of 4<sup>th</sup> grade of primary education
- E8.2 I 7/M 8 Literacy rate of 15 - 24 year-olds
- E8.3 I 9/M 10 Ratio of literate females to males 15 - 24 year-olds
- E8.4 Drop-out rate, primary education

**Poverty reduction & other end goals: IMPACT**

- 9.1a Poverty incidence, national poverty line<sup>1</sup>
- 9.1b I/M 1 Extreme poverty incidence, one PPP\$ per day<sup>2</sup>
- 9.2a Poverty gap, national poverty line
- 9.2b I/M 2 Extreme poverty gap, one PPP\$ per day
- 9.3 M 5 Prop. of pop. below min. level of dietary energy consumption
- 9.3 I/M 3 Poorest fifth's share of national consumption
- 9.4 Life expectancy at birth
- 9.5 Gender Development Index
- 9.6 Human Development Index
- 9.7 Growth in GDP (in PPP\$) per capita

**Outcome and status:**

- S8.1 Diarrhoea disease incidence of under 5 year-olds
- S8.2 Incidence of diarrhoea, no age limit

**Service standards and use:**

- S6.1 I 17/M 29\* Percentage of population with access to safe water
- S6.2 Distance to water source (500m/1 km/3 km)
- S6.3 M 30\* Percentage of population with access to safe sanitation

**Resource allocation to water and sanitation sector:**

- S4.1 Public and private expenditure
- S4.2 Share of public expenditure

**Resource allocation to health sector:**

- H4.1 Public and private expenditure
- H4.2 Share of public expenditure
- H4.3 Public and private expenditure for primary health care
- H4.4 Share of private expenditure to primary health care

**Service standards and use:**

- H6.1 Vaccination coverage\*
- H6.2 I 13/M 17 Births attended by skilled personnel
- H6.3 Access to PHC (% within 5/10/15 km)
- H6.4 Doctors per 100 000 population
- H6.5 I 14/M 19 Contraceptive prevalence rate

**Outcome and status:**

- H8.1 I 10/M 14 Infant mortality rate
- H8.2 I 11/M 13 Under 5 mortality rate
- H8.3 I/M 4 Prevalence of underweight for age for children under 5
- H8.4 I 12/M 16 Maternal mortality rate
- H8.5 I 15/M 18 HIV prevalence among 15-24-year-old pregnant women
- H8.6 TB prevalence (per 100 000)

# 1. Introduction

## 1.1. Mandate

This project was initiated as a sub-initiative under the NORAD Social Sector Initiative (SOSIT):

*Further strengthening of human resources in the broad sense, especially through education, health and nutrition allowing even poor groups to utilize existing opportunities, is acknowledged as one of several essential requirements for social development. Developing and releasing human resources are not only fundamental for the development process, but even an end goal as such. Fundamental for this process is a social sector ensuring basic social services for the population in general and a special focus on access for the poor. In Norwegian development assistance the social sector is identified as a high priority area.*

and further:

*For this initiative social sector shall include health, education, water and sanitation, social security nets, welfare and support for special groups.*

One of the sub-initiatives was envisaged a statistical system for collection and dissemination of information for the work supported by NORAD within social sectors. The objective was to establish a system for basic and summary information for NORAD as a donor and the partnercountries as decisionmakers in several steps, as follows:

- Overall national policies affecting resource allocation for social sectors
- Allocation and distribution of resources between and within sectors
- Access to and use of social service
- Outcome and achievements
- Poverty reduction and other end goals
- Feed back to economic, human and social development

A clear prerequisite was to follow international standards for collection, processing and dissemination of information. But if need be additional information needs were to be identified. The system should include information to follow resource allocation from policy decisions towards human welfare and quality of life, and the feed back towards economic and social development.

Three target groups were identified, as follows:

- NORAD and the Departments under the Minister of International Development Ministry of Development Assistance Ministry of Foreign Affairs
- Policy decision makers in our partner countries
- Public at large in both Norway and our partnercountries

Expected outcomes were identified, as follows:

- An annual report comprising tables, graphs and thematic maps down to district level
- Web sites in Norway and partner countries
- Statistical capacity for such reporting in partnercountries
- Statistical coordination by Statistics Norway
- A systematic focus on social sector information enhancing the general focus on social sector development

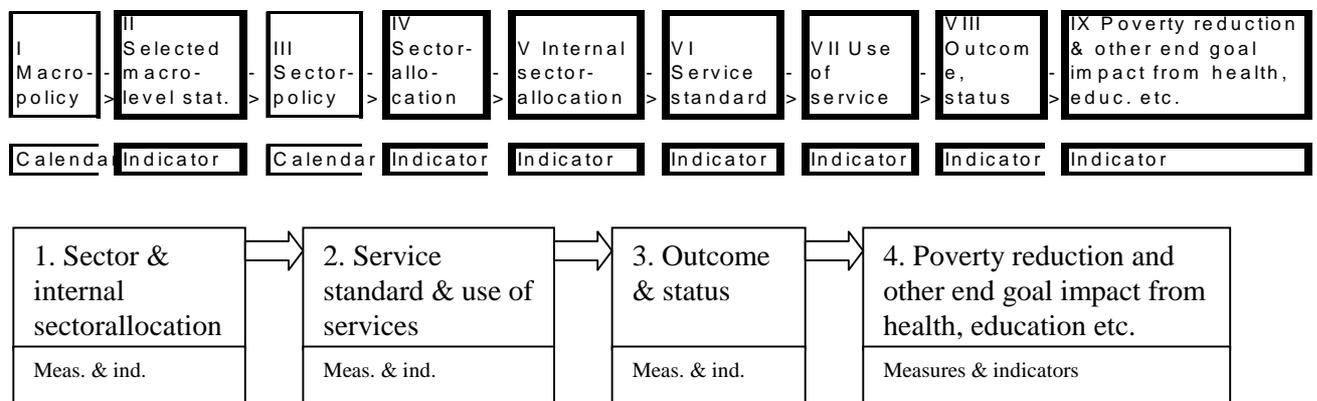
The aim was to identify a set of indicators which were well established, easy to obtain in a regular manner, still providing the information needed.

## 1.2. Statistics Norway response

Statistics Norway found the mandate very interesting and challenging. The main challenge was clear from the outset; how to identify existing indicators which were well designed to follow both general and specific effects throughout the process from resource allocation to poverty reduction. This challenge is obviously ambitious as such, but not the end. The additional challenges are to present complex statistics in a user friendly manner and to present a design for a sustainable system.

We started the work along two lines, a conceptual line and an adaptation of existing measures and indicators.

The conceptual line was to identify initially nine effect steps from macro policy, selected macro level statistics, sector policy, sector allocation, internal sector allocation, service standard/ access to service, use of services, outcome/ status, poverty reduction and other end goal impact of changes in health, education etc., and finally feed back to economic, social and human development. Given the need to focus and the availability of data information, the effect steps were reduced to four as illustrated below and justified in the paragraph "Process of effects" later in this chapter.



The adaptation line comprised reviewing well established and acknowledged indicators of the international organizations. We soon learned that the time was just to ripen for a series of international indicator sets, currently summarized in the IDGs and the follow up/ slightly extended MDGs. The UN Statistical Division prepared IDGs for the UN Statistical Commission, and they were endorsed by ECOSOC (of UN), IMF, OECD/DAC, UNDP, World Bank and promoted by PARIS21. Such a thoroughly based and broad international agreement is not always the case, and made our choice to adapt to the IDGs and later on to pick up the MDGs very easy.

The IDGs comprise 7 dimensions and 21 indicators for the 21<sup>st</sup> Century (as presented in annex 1) all summarizing UN summit agreements throughout the 1990s. The same institutions are now actively working to extend the IDGs towards the Millennium Development Goals (MDG) comprising 8 goals, 18 targets and 48 indicators.

While fully endorsing the need to monitor the 7 IDG and the 8 MDG, this report presents a proposal to take them one step further by *an effect and impact approach* following four main steps from a) inputs: policy decisions and resource allocation, followed by b) outputs: access to and use of social sector service to c) outcome: achievements and status and d) impact on poverty reduction and other end goals. An approach is presented for social sectors, but it might well be extended to income generating activities such as smallholder agriculture, urban informal sector and employment opportunities.

We also realized that the only way to ensure timely and reliable statistics for the needs of NORAD and Norwegian Development work was through not only national cooperation but through some kind of national ownership.

Given the need to follow the effects we are proposing a combination of international information where each country is the unit and national information where information will be presented for geographical areas such as provinces and socio-economic groups. This will provide information for national level policy discussions and issues and has the potential to secure national interest, involvement and ownership.

### **1.3. Reporting in two stages, current report and pilot country report to follow**

The current report presents information recommended by international agencies which are available at the international level. Another step is necessary to elaborate the approach at country level in two pilot partner countries for completion of a final pilot report. The pilot countries are to be identified by NORAD. The approach is to monitor the process from resource allocation to final end goals for human development and the feedback to further economic and social development.

### **1.4. Outline of main document**

The main document comprises three parts, each consisting of two chapters, as follows:

- **Recommendations, ch. 2-3.** The initial part presents the overall recommendations. The first chapter outlines an approach with two focuses. First, to build upon a core including the International Development Goals and other generally accepted and applied measures and indicators. Second, to present measures and indicators step by step, while ensuring conceptual links from level to level.
- **Statistical presentation, ch. 4-5.** The second part explains why statistical information is crucial and presents illustrative tables. The set of dummy and real tables serve to demonstrate the balance between information needed to understand the issues and process and information being available and accessible at the international level.
- **Documentation, ch. 6-7.** The third part documents international trends and issues within the international agency community and the policy of the Norwegian Ministry of Foreign Affairs including the Norwegian Agency for Development (NORAD).

## 2. Recommended approach

### 2.1. Project objectives

The objective of the “Basic Social Policy Data” project<sup>1</sup> is to provide basic and general data for national social sector status and policy. This includes how much resources are allocated and spent for social sectors; how these resources are allocated within the sectors; what are the social sector services yielded by the allocated resources; who are the users; how does the use of these services affect standard of living and quality of life; and finally to which degree do these changes in end goal status give feedback effects. It is important to stress that the objective is to monitor the process rather than to conduct an impact evaluation. This work has developed in parallel with and well coordinated with the interagency work on the International Development Goals and later the Millennium Development Goals as referred above. These goals, targets and indicators relating to social sectors and poverty reduction are all included in this work. The approaches are, however, different. The International Development Goals and Millennium Development Goals are goals at different levels to be achieved within a certain time horizon, in general 2015. The Basis Social Sector Data project is designed to follow the process, and then on an annual basis.

Setting it apart from the IDG, but related to the MDG approach, the Basic Policy Data approach focuses on building partnership with relevant national agencies, usually a national statistical office in NORAD partner countries and the national statistical office in Norway, Statistics Norway. The Basic Policy Data initiative would then serve the need for policy relevant statistical information at country level as well as for comparative statistical information presented under a common umbrella. It is envisaged that both electronic and paper means will be utilized for dissemination.

### 2.2. Millennium Development Goals & the predecessor International Development Goals

The PARIS21 initiative and multilateral development agencies as OECD, UN, the World Bank Group and IMF started by the dawn of the last century actively promoting monitoring of the International Development Goals (IDG). The IDGs comprised 7 dimensions and 21 indicators for the 21<sup>st</sup> Century all summarizing UN summit agreements throughout the 1990s (OECD/DAC 1998 a & b) (<http://www1.oecd.org/dac/Indicators/htm/list.htm> & <http://www1.oecd.org/dac/Indicators/pdf/METHOD.PDF>). The 21 indicators presented in annex 1 represented the following 7 dimensions:

- Reduce the proportion of people living in extreme poverty by half between 1990 and 2015
- Enroll all children in primary school by 2015
- Make progress towards gender equality and empowering women by eliminating gender disparities in primary and secondary education by 2005
- Reduce infant and child mortality rates by two-thirds between 1990 and 2015
- Reduce maternal mortality ratios by three-quarters between 1990 and 2015
- Provide access for all who need reproductive health services by 2015
- Implement national strategies for sustainable development by 2005 so as to reverse the loss of environmental resources by 2015

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<sup>1</sup> Initially SOSIT Basic Data

These indicators were already well established and an integrated part in several contexts. This included a) country level work to produce Poverty Reduction Strategy Papers (PRSPs) supported by World Bank and other donors, such as the recent one from Mozambique (Government of Mozambique 2001) ([http://poverty.worldbank.org/files/Mozambique\\_PRSP.pdf](http://poverty.worldbank.org/files/Mozambique_PRSP.pdf)) and b) donor work such as the annual report from the British development agency (DFID 2001) ([http://www.dfid.gov.uk/public/news/dr2001\\_over.pdf](http://www.dfid.gov.uk/public/news/dr2001_over.pdf)).

The IDGs have developed into the Millennium Development Goals (MDG) comprising 8 goals, 18 targets and 48 indicators (<http://www.un.org/News/Press/docs/2001/pi1380.doc.htm>). The 48 indicators and 18 targets presented in annex 2 represent the following 8 dimensions:

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development

A close scrutiny of the MDGs show that this is a mix of well known and applied indicators and some cutting edge indicators which are identified from the policy perspective with less than usual emphasis on availability. Hence, relying on the MDGs may provide very useful indicators from a policy point of view but requiring special data-collection efforts. Therefore relying on MDG indicators would add an extra risk factor and the availability should be closely scrutinized at the country level. The two country level reports presented so far (refer to next paragraph) show that at country level some indicators are not available and this includes the "new" indicators. Hence it is necessary to monitor whether the MDGs are universally accepted or end up being simplified towards already well established indicators.

UNDP has already prepared country level reports with the main aim to present the development of these indicators, such as one for Vietnam (United Nations Country Team/ Vietnam 2001) ([http://www.un.org.vn/undocs/IDT2001/IDT-MDG-Engl\(0720\).pdf](http://www.un.org.vn/undocs/IDT2001/IDT-MDG-Engl(0720).pdf)). These reports have a more limited scope than the PRSP and they focus on the International development targets and Millennium Development Goals presenting a mix of qualitative development judgments, figures and graphs and a textual presentation of status and trends, challenges and supportive environment for the development dimensions. These reports are compiled by the UN Country Teams in collaboration with the governments.

This indicative review of the IDGs and MDGs document that they are all candidates for a NORAD monitoring system, but also tell that some of the MDGs still need some further work.

### **2.3. Does the indicator approach of IDGs and MDGs apply to NORAD ?**

The question is then whether the indicator approach of IDGs and MDGs apply to NORAD. Or being more specific, there are two questions, first whether the development targets and goals apply to NORAD's policy and whether a focus addressing only targets and goals while leaving the process apart applies.

In NORAD's new policy on result based management, the overarching goal is poverty reduction in general and the IDGs are obviously capturing essential dimensions. But the focus of NORAD's new policy is a broader one including both the process leading up to one or more development goals and the end goals themselves. Even if a closer scrutiny of the IDGs and MDGs shows that what is presented as end goals are rather outputs- and outcome dimensions, this report argues that the scope of the IDGs is far too limited.

The report presents a proposal to take the IDGs one step further by *an effect and impact approach* following four main steps from a) *inputs*: policy decisions and resource allocation, followed by b) *outputs*: access to and use of social sector service to c) *outcome*: achievements and status and d) the *impact* on poverty reduction and other end goals.

This report presents the approach for social sectors, but it might well be extended to income generating activities common for large population groups. Population groups to be considered on a general basis are rural population with crop agriculture as the main activity, and the urban informal sector. On a country basis other groups such as pastoralists, agricultural estate workers, and unskilled urban formal sector employees might be considered included as well.

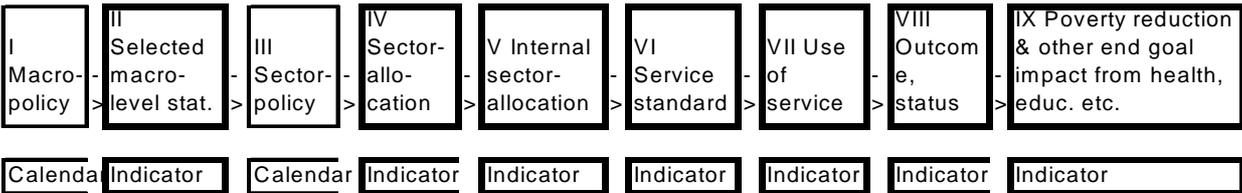
*The objective* of the Basic Policy Data project is to provide basic and general data for national social sector policy and context. This includes information on how much resources are allocated and spent for social sectors; how these resources are allocated within the sectors; what are the social sector services yielded by the allocated resources; who are the users; how does the use of these services affect the standard of living and the quality of life; and finally to which degree do these changes give a feedback effect towards end goals. Hence the reader will find the International Development Goals listed not only under *Poverty and other end goals*, but also under *Outcome and status* and even under *Service standard and use*. It is important to stress that the objective is to monitor the process rather than to conduct an impact evaluation. This work has developed in parallel with and well coordinated with the interagency work on the International Development Goals as referred above. Those goals and their indicators are all included in this work. The approaches are however different. The International Development Goals are goals at different levels to be achieved without a focus on how the goals are to be reached. The Basis Social Sector Data approach focuses exactly on how to reach certain end goals by following the process.

The data system proposed would serve as a sound base for impact evaluation, but in order to conduct such an evaluation, an approach to handle the contra factual issue (what happens if a policy is *not* implemented) is required.

The objective of this report is to monitor the process from resource allocation to final end goals for human development and the feedback to further economic and social development. As already addressed, in order to fulfill this objective it is necessary to follow the process of effects step by step.

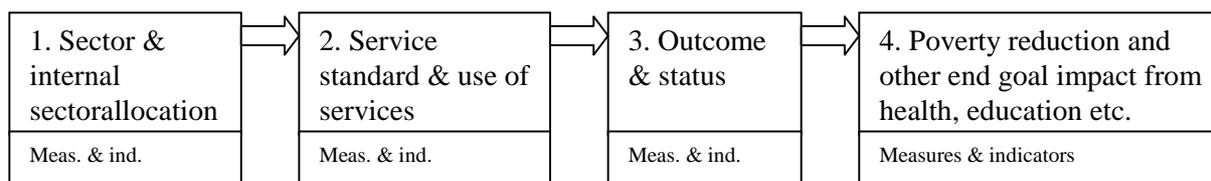
**2.4. Process of effects**

To fulfill the objective it is necessary to follow the process step by step as illustrated below.



- I. **Macro policy:** General policy incl. macroeconomic policy, custom and foreign trade policy, external economic shocks, war, and civil war. *Event calendar.*
- II. **Selected macro level statistics:** External economic conditions (terms of trade, export prices, oil price), internal economic trends (savings, investments, major annual production fluctuations such as in agriculture), public budget and accounts. *Statistics*
- III. **Sector policy<sup>2</sup>:** Regulations, financing systems, organizations, public/ private balance, decentralizing, human resource management. *Event calendar.*
- IV. **Sector allocation:** Allocation of public and private resources for social sectors. *Statistics*
- V. **Internal sector allocation:** Allocation of resources within each sector by primary, secondary or tertiary service, by geographical divisions: provinces/ districts, and by centrality level: urban/ rural. *Statistics*
- VI. **Service standard/ access to service:** Standard of public and private services, disaggregated as above by service level, geographical divisions, and centrality, but also by target groups: by poverty/ income group, by ethnicity, by occupation, by demographic characteristics such as age, gender, type of household and life cycle. *Statistics*
- VII. **Use of services:** User frequency of public and private products and service offers, disaggregated as above. *Statistics*
- VIII. **Outcome/ status:** Achieved status, disaggregated as above.
- IX. **Poverty reduction and other end goal impact of changes in health, education etc.** Social and economic impact of changes in health, education, water supply, sanitation, social networks, welfare- and other targeted support for special groups.

The second step is background information; the first and third steps are event calendar type of information. For presentation steps four and five, and six and seven respectively might be combined. This allows us to present the main chain of potential effects in four main steps as illustrated below.



Each of these steps requires their own presentation of measures and indicators. Based upon the priority measures and indicators it will also be possible to present the relationship between conjunctive steps and one indirect relationship as follows:

1. (IV & V) Sector and internal sector-allocation		<ul style="list-style-type: none"> <li>• Health</li> <li>• Education</li> <li>• Water and sanitation</li> </ul>
2. (VI & VII) Service standard & use of services.		Health Education Water and sanitation
3. (VIII) Outcome, status		Health Education Water and sanitation
4. (IX) Poverty reduction and other end goals		
Relationship between level 2 & 1	2. Service standard & use of services.	1. Sector and internal sector-allocation
Relationship between level 3 & 2	3. Outcome, status	2. Service standard & use of services.
Relationship between level 3 & 1	3. Outcome, status	1. Sector and internal sector-allocation
Relationship between level 4 & 3	4. Poverty reduction and other end goals	3. Outcome, status
Feed back from level 4	Economic Development	4. Poverty reduction and other end goals

<sup>2</sup> Including sector policy implies including an event calendar.

Measures and indicators for the four priority steps are presented in this chapter. Examples of statistics available at the global level for each of these steps and the relationships are presented in a separate chapter. The final aim is however to present country level statistics. There are two options for such a presentation combined with this methodological report:

- Presentation of country level information in an annex to the methodological report.
- Presentation of country level information in a separate accompanying report.

## **2.5. Principles for how to select recommended measures and indicators**

The main direct goals for policy and/or resource efforts in social sectors are related to the final outcome and status of human welfare and development, like health status and absence of health problems, final educational outcome, consumption of clean water and proper sanitation, absence of poverty. The indirect goals are related to the impact of these direct goals on ultimate end goals i.e. human, social and economic development. Hence we have started the selection process by identifying and reviewing international recommendations for measures and indicators within these areas. Over the very last years there has been a clear focus on ultimate goals. While there are large discrepancies, we are quite convinced that the package of measures and indicators presented would include all widely recommended ones. For measures and indicators of outcome and status there has also been some discussions, but there is still a large variety. In order to stay within reasonable limits we have had to select a proper package reflecting a balanced set of sub-dimensions and drop quite a number.

From these sets of measures and indicators we have moved backwards, selecting internationally well known and used measures and indicators of resource allocation, access and use which are likely to affect the outcome and status and the end goals.

Finally we have included some background measures and indicators. These are either providing background information or are needed to prepare common constructed variables for further analysis.

We start with the presentation of recommended measures and indicators for each step in the process of effects. Then we give a recommendation for how to present the relationship between the steps.

## **2.6. Monitoring, not impact evaluation**

It is important to stress that the objective is *to monitor the process* rather than to conduct an impact evaluation. The data system proposed would serve as a sound base for impact evaluation, but in order to conduct such an evaluation, an approach to handle the contra factual issue is required. The theoretic requirements for an impact evaluation are general, but the approach will be different for program and project evaluation versus policy evaluation.

### ***2.6.1. Program and project impact evaluation***

One great advantage with a standardized approach is that it is easy to organize an extra module to provide data for program and project impact evaluation. For all programs and projects targeted towards specific geographical areas, socio-economic groups, age and gender groups etc. an already planned survey could be extended by an extra sample to provide information from that specific group. By matching the participating people with non-participating people with similar background situation and activities, you can compare the two groups and measure the impact of the project or program. While it is clearly not recommended to include program and project evaluation in the core approach, it is recommended to reflect on this possibility as an add-on module. It is however considered outside the scope of this initiative as such to include program and project evaluation.

### ***2.6.2. Policy impact evaluation***

Again the issue is how to handle the contra factual situation. At policy level this requires a dedicated approach. Economy-wide policy impact will typically be evaluated by applying a macro-economic CGE (Computable General Equilibrium) model. Impact evaluation of sector policy will require sector wide models.

The data to be collected by a systematic approach as suggested in this paper might serve well as a data base for such models, but the development of such models are outside the scope of this work.

## **2.7. Still Missing: Food Insecurity and Income generating activities**

The original scope behind this work was limited to social sector policy impact and effects. During the work the scope was extended to include poverty reduction. The IDGs are even more focused on end goals within social sectors and poverty eradication, except that IDGs include a few environmental indicators.

Through the development of both this report on "Basic Policy Data", the IDGs and now the MDGs, it became evident that essential dimensions are missing from the current statistical system proposals. As stated, the work on this report focused originally on social sectors. When a broader perspective of poverty eradication has been applied, it has become evident that it is difficult to argue against including food insecurity and income generating activities.

With the IDGs focus on development goals excluding possible causes, it is well justified to leave out income generating activities, but it is difficult to justify why food insecurity has been left out. There is however a tradition to leave both agricultural production and food insecurity to the sector organizations headed by FAO. Their focus has been on agricultural production and hunger caused by lack of production. Even within the recent initiative on the information system, Food Insecurity and Vulnerability Monitoring System, the focus is on production. Unfortunately even the PARIS 21 initiative planned work on agricultural statistics failed in the first round and neither food insecurity nor agricultural production as an income generating activities have been integrated with poverty monitoring work. Only by mid 2001 the situation might start to change. PARIS 21 has picked up the work again, by relaunching a Food, agriculture and rural statistics task team. The British Secretary of State for International Development Clare Short challenged in September 2001 the agricultural community in a speech on Sustainable food security for all by 2020 (Short 2001). She puts the methodological challenge for the agricultural sector to include how lack of money to buy food at the household level rather than low production causes food insecurity and hunger and how this lack of food causes further poverty in rural and urban areas. She continues by highlighting the institutional challenge for the agricultural community to join the statistical community within the PARIS21 umbrella.

The MDGs approach has picked up one side of the resource flow addressed by this report with a focus on obstacles and support for development under the heading Global partnership for development. This includes three dimensions, Official Development Assistance (ODA), Market access and Debt sustainability. The MDGs approach is well advocated and presented. Even if MDG-indicators do not address the development resource flow in general, some of the indicators do and they are to be included if the Basic Policy Data approach is extended to include food insecurity and income generating activities in a later round.

To a large extent these targets and indicators reflect the current status of the analytical work. So far the focus has mainly been on goals and targets (and their indicators). The main analytical trends beyond this focus are on pro-poor policy and resource allocation as addressed by the MDGs and this report. So far there is not much emphasis on how the poor themselves could work their way out of poverty. There is however just a question of time before these data will be demanded and given the planning time horizon of statistics it is necessary to prepare for these data needs already now. A first step might be to include information on three major arenas of income generating work for the poor, as follows:

- smallholder production with a main focus on one or a few major crops,
- urban informal sector with a focus on both petty trade and artisan production,
- employment opportunities for unskilled and low-skilled workers in formal sectors

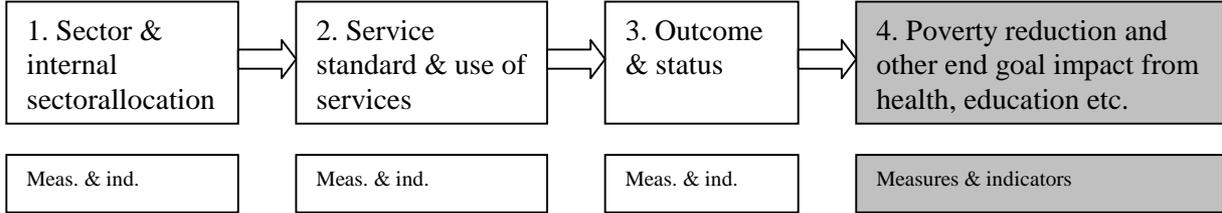
The current version of this work is however limited to social sectors and poverty eradication.

### 3. Recommended Measures and Indicators

#### 3.1. Introduction

Following the current global focus on international development goals, the presentation of measures and indicators starts by presentation of the end goals and then moves backwards step by step in each sector, ending up with resource allocation. At the end of the chapter the presentation is turned around and summarized in four steps from resource allocation through service standard and use, outcome and status, and finally to poverty reduction and other end goal impact. Each paragraph will start with a graphical reminder of the four steps and highlight the step currently in focus by a grey shadow.

#### 3.2. The Ultimate Goal: Poverty Reduction and other End Goals



The ultimate goals of all the efforts in social sector improvements are poverty reduction and human, social and economic development. Both policy priorities and the objectives for short and long term improvements of human well-being and quality of life are changing over time and across countries, but any policy is designed in order to achieve some improvements along some dimensions. Hence we would always like to compare the changes in sector outcome with one or more dimensions of overall objectives.

Ideally we would like focus on real measures. Examples of such measures are overall resource allocation to each sector or sub-sector, a complete picture of access to services of different standards and the use of these services by different groups. Then come measures of the status obtained such as profile and level of education and finally reduction of poverty along any dimension. For some of these measures, information is being collected on a regular basis. Then these measures are of course included. However, for many dimensions, the overall measures are not known and it is too expensive or may be even impossible to collect information. We are then presenting internationally acknowledged indicators for monitoring.

##### 3.2.1. The ultimate goal: Poverty reduction and other end goal traditions

There are several traditions and academic schools for how to measure poverty, other end goals and human, social and economic development. Given the need for systematic monitoring, the following three traditions are central in a poverty reduction perspective:

- Economic growth.
- The Human Development Index family tradition and Life expectancy.
- Economic Well-being: Money metric poverty indicators measuring expenditures and consumption; inequality; and child malnutrition.

In order to capture all main dimensions included in the poverty concept of different traditions and academic schools, you would also need to include other important traditions as 'Quality of life'; 'Economic, social and human capital' and 'Participatory/ empowerment' traditions. They are all addressing important issues that you could argue are dimensions of poverty. But they do have in common that currently there are no established traditions for how to conduct a systematic monitoring.

### 3.2.2. *Economic growth.*

Economic growth is well established as the central indicator of economic development. Economic growth is first and foremost measured at the national level. In industrialized countries measures of economic growth might also be available at regional level, but this disaggregated information is usually not available in developing countries.

At the national level, the Gross Domestic Product (GDP) tells what the residents of a certain country produce during a year. If you subtract from the value of the GNP the financial income and salary transactions sent to other countries and add what is received, you get the Gross National Income (GNI). The GNI was up to the 1990s called Gross National Product (GNP) and still is by some. Hence the GNI (or GNP) tells what is available for a certain country for consumption and investments. It might be necessary to follow both. To monitor the impact of economic growth, i.e. how the money is allocated, the GNI or GNP would best serve the purpose. However, to monitor how the economy works, or the impact of better education and health on economic growth, monitoring of GDP would usually best serve the purpose. In any case it is necessary to control for price changes and real value compared with US\$ as a reference currency. To monitor how the economy works, deflation based upon real exchange rates will serve. However to monitor economic welfare and poverty, only adjustments based upon the purchasing power of the national currency will serve the purpose. Hence these issues should be followed by purchasing power parity adjusted US\$ or PPP\$<sup>3</sup>.

### 3.2.3. *Human Development Index tradition and Life Expectancy*

The United Nations Development Program (UNDP) has a long history of measuring other end goal dimensions than economic growth. The Human Development index family based upon elements from the old Physical quality of life index was well established in the 1990s. It now comprises the traditional Human Development Index, the Gender Development Index and the Poverty Index. All these are composite indices comprising at least three dimensions. The dimensions might have equal weights such as 3 dimensions each carrying a weight of 1/3. Any other set of weights adding up to 1 may apply dependent upon what is a reasonable balancing between the dimensions actually included.

#### **Human Development Index:**

This is the original index, calculated and presented each year by UNDP, comprising the following dimensions:

- Life expectancy at birth
- Adult literacy (0 - 100 per cent)
- Combined gross enrollment rate for each of primary, secondary, tertiary enrollment
- Real GDP per capita

#### **Gender-related Development Index:**

As Human Development Index, but adjusted for gender disparity. Since any increase of a given gap counts more than a same size decrease, additional disparity between men and women will increase the average gap and hence reduce the overall index value. Therefore the HDI is the upper limit of a GDI.

#### **Poverty Index.**

The UNDP poverty concept focuses on poverty as a multidimensional indicator of lack of human welfare. It focuses on the same dimensions as the HDI but addresses the share of the population who is missing a certain standard along one of the dimensions, each given a weight of 1/3:

- Lack of longevity, measured by per cent of the population expected to die before age 40
- Lack of knowledge, measured by per cent adults who are illiterate
- Lack of economic provisioning, based on three sub-dimensions: lack of access to health service, lack of access to safe water, child malnutrition.

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<sup>3</sup> PPP\$ are adjusted not only according to the official exchange rate, but also according to the prices in the country compared with prices in United States of America as the reference country.

### ***Life expectancy at birth***

Life expectancy at birth is the classic indicator of human development (as GDP is of economic development) and is promoted by all concerned agencies. Currently there is a discussion within the health sector on a so-called disability adjusted life expectancy (DALE) (refer to discussion on health sector outcome), but this is promoted as a supplement to life expectancy rather than being complementary.

Life expectancy is an obvious indicator to include, but since it requires a population census or a huge sample survey, it is usually only calculated every ten years.

### **3.2.4. *Economic well-being***

The UN Social Summit in Copenhagen in 1995 focused on reduction of extreme poverty. UN Statistical Commission, ECOSOC and PARIS21 have recommended three types of indicators to monitor poverty:

- Money metric poverty indicators
- Inequality of consumption and expenditures
- Child malnutrition.

#### ***Money metric poverty indicators measuring expenditures and consumption***

*Money metric poverty* is the traditional measure of individual and household poverty. It does include not only income in cash and kind, but also the value of food production for own consumption. Hence it is an indicator of material resources available within a given time period. It is both an end goal as such, and a frequently used measurement of resources available for each individual household in order for them to reach their end goals and then an indicator of the economic welfare of the household.

Theoretically one would argue for measures of both economic stocks and flows. The Millennium Development Goals do include an indicator on economic stocks, being secure tenure, planned to address the insecurity of slum dwellers. One could also argue well for the need to monitor stocks to learn about poor peoples ability to survive external shocks such as sudden injuries or diseases or other shocks leading to loss of income. But flow measures serve better as indicators of changes and levels at the aggregate level.

*Income poverty* is an important indicator both because consumption of own production and other income is essential for any household trying to achieve human welfare, but also because it will directly and fast reflect any policy decisions by the authorities relating to material resources.

The concept and label "Poverty measurement" has been used throughout the last century to measure income and access to free or subsidized public resources such as school and health service. During the 1990s when the poverty label was used for a multidimensional concept of poverty, the label "Income poverty" was introduced. It is somewhat misleading. Income poverty is correctly used as an indicator of income available for consumption expenditures, but it will always include consumption of own production. Rather than by income, poverty should be measured by expenditures and consumption, adjusted for transfers<sup>4</sup>.

There are two distinct schools of poverty measurement and several combining these:

- **Absolute poverty lines.** Absolute poverty lines are based upon a fixed commodity basket and the costs of these commodities. This basket is a comprehensive list of all necessities.
- **Relative poverty lines.** Relative poverty lines refer to a certain distribution of consumption expenditures and set a cut-off such as 'half the median total consumption' or 'the 30<sup>th</sup> percentile'. Such a relative poverty line is either recalculated for each new measurement or set once for a longer period, say ten years.

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<sup>4</sup> Due to the fact that direct measurement of income will underestimate the real income.

- **Combined absolute and relative poverty lines.** The main combination of absolute and relative poverty lines is absolute for food requirements and then with an addition of the same share of non-food expenditures as in a reference population. The latter could either be the complete population or a target group such as the poorest 30 per cent. The World Bank one-US-dollar-a-day poverty line was originally such a poverty line, but has then been used as a reference for poverty lines across the world without any such reference.

Ideally we would want to recommend one poverty line approach, but it is difficult to select one which is both poverty relevant at the national level and could be used for international comparisons. The World Bank has "solved" this issue by using two or even three poverty lines for each country. They use whatever national poverty line well established at the national level and then the one-dollar-a-day poverty line (or even two-dollar-a-day) for international comparisons. UNDP<sup>5</sup> has argued that "the use of the same poverty line in different countries can be very misleading because of variation in "necessary" commodities." They then refer to different prevailing patterns of non-food consumption and state that "..., the minimum income needed to escape social estrangement can be quite different between communities." In the global context, different communities will often be different countries. In our context different communities might equally well be urban versus rural communities.

The same arguments can be used to advocate the main combined absolute and relative poverty line, i.e. a poverty line absolute for food consumption (based upon FAO calorie requirement recommendations) and then with an addition of the same share of non-food expenditures as in a reference population. Such a combined approach will reflect the current need and preferences for non-food consumption and hence the substantial differences in income " needed to escape social estrangement ... between communities." Martin Ravallion in the World Bank is one of the strong advocates for this approach<sup>6</sup>, but currently the World Bank has landed on an even simpler approach for a comparative poverty line, i.e. the one-PPP-dollar-a-day poverty line. Angus Deaton (2000) has addressed some of the problems with this approach. He does not reject the one-PPP-dollar-a-day poverty line but ends up advocating the FAO calorie requirement based approach stressing that these lines are not likely to show major deviations. He main emphasis is on local credence, a fixed common national poverty line sustained for a long period of time and properly designed household surveys to provide consumption and expenditure information.

UNDP has recently launched an extended poverty goal also addressing hunger. Their first Millennium Development Goal addresses both poverty measured by a one dollar a day<sup>7</sup> and hunger. Hunger is proposed measured by "proportion of population below minimum level of dietary energy consumption". While not stated it is reasonable to assume this refers to the FAO calorie recommendations and an average consumption pattern, hence equivalent to the extreme poverty as recommended by Ravallion. If so, this is a very interesting relaunch of the extreme poverty line but now presented as a hunger indicator. It is very easy to advocate such an indicator and it is also easily adapted to country level standards and consumption patterns. It definitely deserves support and to be included among poverty indicators.

Despite the professional arguments, a main argument is still how widely applied an approach is and currently there is only one candidate for comparative statistics, the one-PPP-dollar-a-day poverty line. At the national level one should be ready to accept any fixed poverty line with local credibility. If it is necessary to develop a poverty line, it is recommended to consider fixed poverty lines based upon FAO calorie recommendations and average mix of food and non-food consumption.

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<sup>5</sup> UNDP (1997:18) Human Development Report 1997.

<sup>6</sup> Presented such as in Ravallion (1992).

<sup>7</sup> It does not tell whether this is PPP\$ or currency exchange \$.

When the poverty line is fixed for an adult man, the poverty line for additional household members being adult women, boys and girls of different age groups may be calculated using an equivalence scale assuming a distribution in the household according to this scale. Three indicators will then be applied to provide information on poverty:

- $P_0$  - Poverty headcount or incidence tells the *share* of the population living in households below the poverty line.
- $P_1$  - Poverty gap tells the *average distance* up to the poverty line of the population living in households below the poverty line.
- $P_2$  - Poverty intensity tells the *squared distance* up to the poverty line of the population living in households below the poverty line.

### ***Inequality of consumption and expenditures***

Traditionally statisticians have presented data on distribution across the society, not by identifying the share below a certain line, but rather by presenting the overall distribution including poor and better off alike. This has been done in various levels of details: a Lorenz curve showing the overall distribution by graphical presentation, by presenting the deciles or quintiles of the distribution or by a single parameter as the Gini-index. All these indicators are usually compiled for income measured by the proxy indicator being total consumption and expenditures per capita. UN Statistical Commission, UN ECOSOC, OECD/DAC, World Bank, UNDP and PARIS21 are recommending one of these indicators: "Inequality: Poorest fifth's share of national consumption" as a poverty indicator.

It is of course also an indicator of distribution and the joint picture of poverty indicators (head count and/ or gap) and this distributional indicator will tell both whether the policy has been pro-poor or not and whether there is a space for redistribution.

### ***Child malnutrition.***

Proper child nutrition has been promoted as a human end goal for decades. It has a long history as a component of the Basic Needs approach promoted by UNICEF. FAO has also actively promoted child nutrition under their food security and food balance approaches. Already in the 1970s child malnutrition was surveyed both as an end-goal and as an indicator of poverty. To some degree the focus on child malnutrition faded out with integrated rural development approach and public agricultural marketing in the end 80s. However, as argued well by the Human Development Report, child malnutrition is a proper indicator of poverty and is an indicator of an important real end goal i.e. a proper nutritional and health status of children.

The set of anthropometric indicators includes the following ones:

- wasting or weight-for-height, measuring current nutritional status
- stunting or height-for-age, measuring nutritional status over time
- malnutrition or weight-for-age, measuring overall nutritional status.

As a poverty indicator, child malnutrition or prevalence of underweight for age for children under five years of age has been selected and recommended by UN Statistical Commission, UN ECOSOC, OECD/DAC, World Bank, UNDP and PARIS21.

### ***3.2.5. Our recommendation for poverty reduction and other end goal measures and indicators***

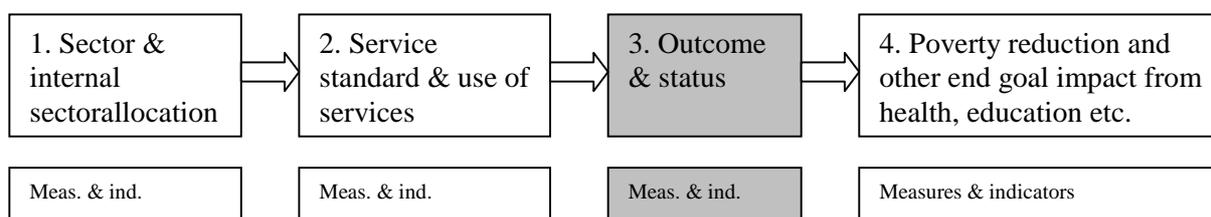
Since there is no single international recommendation for an income poverty line, we recommend as the World Bank to present two poverty lines and two sets of poverty measures:

- The national poverty line whether based upon an absolute, a relative or a combined approach.
- The one-dollar-a-day poverty line.

For each of these poverty lines we recommend to present the three poverty indices P<sub>0</sub>, P<sub>1</sub>, P<sub>2</sub>.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
Economic growth, growth in Gross Domestic Product, GDP (PPP\$) per capita.	All agencies	A,a
Human Development Index	UNDP	A,a
Gender Development Index	UNDP	A,a
Poverty Development Index	UNDP	A,a
Poverty based upon national poverty line, Poverty incidence P <sub>0</sub> , Poverty Gap P <sub>1</sub> , Poverty Intensity P <sub>2</sub>	PARIS21, World Bank	A, 3-10
IDG/MDG - 1. & 2. Extreme poverty based upon one-PPP\$-per-day poverty line, Poverty incidence P <sub>0</sub> , Poverty Gap P <sub>1</sub> , Poverty Intensity P <sub>2</sub>	PARIS21, World Bank	A, 3-10
MDG - 5. Proportion of population below minimum level of dietary energy consumption	MDG, UNDP	A, 3-10
IDG/MDG - 3. Inequality: Poorest fifth's share of national consumption	UNSC, ECOSOC, WB, UNDP, PARIS21	A, 3-10
IDG/MDG - 4. Child malnutrition or prevalence of underweight for age for children under five years of age	UNSC, ECOSOC, WB, UNDP, PARIS21, UNICEF	A, 5-10
IDG. Life expectancy at birth	UNSC, ECOSOC, WB, UNDP, PARIS21, UNICEF	A, 10

### 3.3. Health Outcome and Status



As for most sectors and projects/programs, indicators on outcome are relatively clear and easy to obtain. However, it is important to remember that this outcome may be reached due to improvements in quite other sectors and not necessarily caused by changes within the health sector. Good examples of this dilemma may be the different mortality and morbidity measures where improvement or deterioration actually may reflect interventions in other sectors, and/or even changes in environmental factors, e.g. drought, improved roads, or nutrition. It is however important to stress that if everything else remains equal, we would expect outcome in health status to be affected by interventions and improvement in health service. Hence it is important to study statistics over some time and across different strata and contexts.

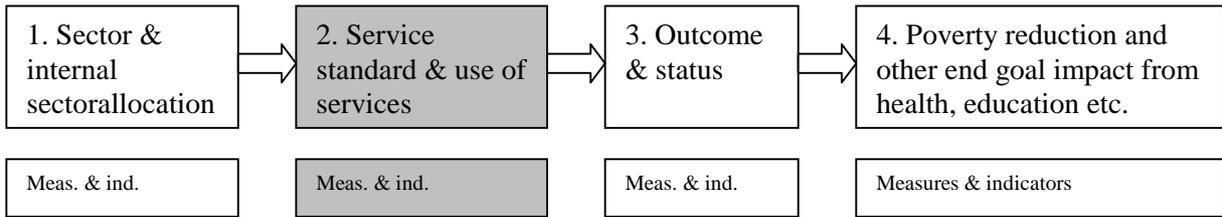
It is important to remember that health sector service include a range of preventive and curative health service activities. For preventive health service the outcome will usually be a complete or proper coverage. For curative health service the direct positive outcome is that the client has got rid of the actual disease. For more complex and vulnerable processes such as childbirth and the first year(s) of living, it might be hard to separate the outcome of preventive and curative health and the outcome is rather an outcome of the mother and child health system and the overall health system. Hence the outcome indicators are covering quite a range and include even mortality indicators. It is however important to realize that these are sub-group mortality indicators, while indicators of overall mortality are end goal indicators.

A number of the international development targets indicators have been included in the list recommended here, with the benefits these may carry (see above). These include also broad indicators which have some impact from health sector interventions, but probably just as much or even more so from other factors and interventions in other sectors. Nevertheless, as internationally acknowledged and recommended measures these are included, but they need to be seen in light of other measures (such as *Incidence of diarrhea diseases among under five year olds*).

It could also well be argued that some of the indicators of standard, access and use could be included at this step, depending on at what perspective outcome is seen and at what time span. One could argue that 97% coverage of vaccine against measles is an outcome, but it is also an indication of service availability, standard and use, whereas it in either case assumes that the vaccine is effective and actually does prevent against the disease, with the effect (outcome or impact) that measles is reduced.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
IDG - 10/ MDG - 14. Infant Mortality Rate	PARIS21, UNDP	A,a
IDG - 11/ MDG - 13. Under 5 Mortality Rate	PARIS21, UNDP	A,a
IDG - 12/ MDG - 16. Maternal mortality ratio	PARIS21, WHO	A,a
IDG - 15/ MDG - 18. HIV Prevalence in 15 to 24 Year-Old Pregnant Women	PARIS21, UNAIDS	F, x
IDG/MDG - 4. Child Malnutrition: Prevalence of Underweight Under 5s	PARIS21/WHO	A,a
MDG - 21. Prevalence and death rates associated with malaria	MDG/ UNDP	F,a - N
MDG - 23. Prevalence and death rates associated with tuberculosis	MDG/ UNDP	F,a - N
Diarrhea disease incidence of under 5s		F,a - N
Total fertility rate	UNDP	A,a
Population growth rate	UNDP	A,a
STD prevalence (per 100,000)	WHO	F, x
TB prevalence (per 100,000)	WHO	A,a

**3.4. Health Service Standard, Access to Health Service and Actual Use of Health Service**



The actual use of health service is affected on one hand by the need for health service and on the other hand by the health service being available, i.e. the access to the health service and the standard offered.

To follow the theoretical approach presented in this report we should present statistics of a) peoples need for health service, b) the standard offered and the access (distance and fees/ payment) and c) the actual use of health service.

With some important exceptions such as the need for prenatal, birth, and postnatal care and vaccines for children, there is no common measurement of the need for health service. The large integrated household surveys promoted by the World Bank from around 1990, i.e. the Living Standard Measurement Survey and the Integrated Survey do include information on incidence of injuries and

diseases. Hence such information is available in some countries and we may indeed use this as an indicator of the need for health service. Unfortunately there are quite some measurement problems. The surveys ask whether people could not attend to their daily work or tasks due to disease and injury. Poor people who know they can not afford treatment, a consultation nor to rest from their daily work tend to say that a disease will not stop them from working, while better off people can afford to stop working a day even for a minor disease.

Our judgment is that acceptable information on the general need for health service is not available and therefore we approach health service standard/access and actual use jointly.

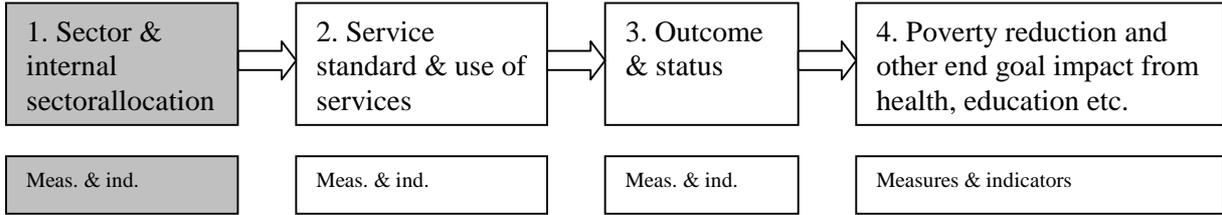
Hence our approach is rather that health service standard, access and use are interlinked and depending on each other, and are often measured using more or less the same indicators. One example may again be vaccination coverage, which partly shows the standard of the system providing the services, partly the access to the services and partly the actual use of the services. The indicators in this category are thus quite varied, but include what we consider to be a broad overview of these factors. Here, as with most indicators, any disaggregated data (geographical or by social groups) are of great interest.

Two of the indicators, *Births Attended by Skilled Health Personnel* and *Contraceptive Prevalence Rate* are indicators included in the international development targets and PARIS21, and would thus probably be of special interest and quality. *Vaccination coverage*, especially for the above mentioned (DPT3, measles and TB), is widely acknowledged as good indicators of a well functioning health care system, which is able to provide essential services. We suggest to operationalize the indicator 'vaccination coverage' as the percentage having undergone vaccination against all the diseases mentioned above.

It could be argued that *doctors and nurses per population and health unit data* should be defined as indicators of overall allocations or internal sector allocations. However, here these are associated with service standard and accessibility.

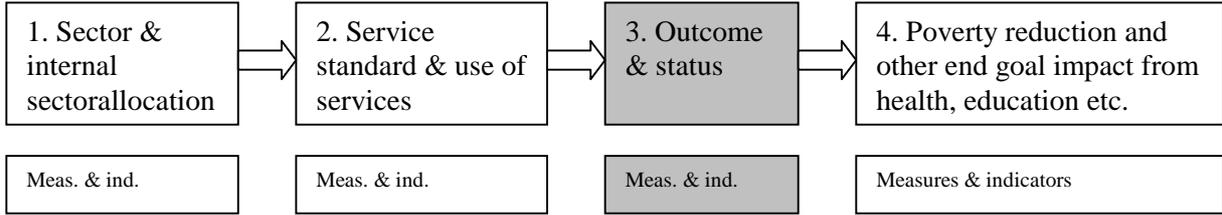
Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
IDG - 13/ MDG - 17. Births Attended by Skilled Health personnel	PARIS21, UNFPA	A,a
IDG - 14/ MDG - 19. Contraceptive Prevalence Rate (per 1,000)	PARIS21, UNDP/UNFPA	F, x
MDG - 22. Proportion of population in malaria risk areas using effective malaria prevention and treatment measures	MDG/ UNDP	N
MDG - 24. Proportion of tuberculosis cases detected and cured under directly observed treatment short course	MDG/ UNDP	N
Vaccination coverage: DPT3 MDG - 15. Measles TB	WHO: World Health Report 1999. MDG/ UNDP. UNDP: HDR 1999 World Bank: World Dev. Indic. 1999	A,a
Antenatal care use		A,a
Post natal care use		A,a
MCH utilization		A,a
Doctors per 100,000 population	UNDP	F, x
Nurses per 100,000 population	UNDP	F, x
Health units per 1,000 population	WB/WHO	F, x
Beds per 1000 population	WB/WHO	F, x
Access to PHC (% within 5/10/15 km)		A, x
Consultations per staff		F, x
No. of drugs per prescription		F, x

### 3.5. Health Sector Resource Allocation



Recourse allocation whether between or within sectors are presented jointly, refer to paragraph 2.12. However, when presenting the statistical link between resource allocation and service offered, the focus is sector by sector, refer to paragraph 2.16. and 2.17.

### 3.6. Education Outcome and Status



A very essential aspect when it comes to educational outcome on the individual level is whether a person is able to read and write. To measure this precisely is quite a task, but obviously there is a strong correlation between the number of years of attending school and the probability of obtaining this skill. After four years most persons with normal intellectual capacity will have learned to read and write. So to measure how many pupils reach this stage will tell about the educational system's performance. Various versions of the indicator exist. PARIS21 recommends 'completion of 4<sup>th</sup> grade of primary education'. Among the 18 core indicators selected for Education for All 2000 Assessment (EFA2000) is 'survival rate to grad 5 (percentage of a pupil cohort actually reaching grade 5). Still another version is average numbers of years of schooling completed; this one is included in UNSD's Minimum National Social Data Set. We will follow PARIS21 in this respect. Further we also find the number of pupils actually running through the education system as an important aspect. Hence completion of education by level is included in the indicator set. Indicators that count duration without taking into account what has been learned could be viewed as indicators on participation and access, as is the case for UNESCO.

Literacy is included in every indicator list, and unanimously as an outcome indicator. A person is literate if he or she can read and write with understanding a short simple statement on his/her everyday life (UNESCO definition). Indicators differ with respect to what group should be considered, roughly spoken there are two options: Either all adults (population 15 years and above), or young adults, with an upper age limit of 24 years. In principle, literacy should be universal, but in a real world with limited resources, we feel that priority should be given to the young group.

In addition to monitoring overall literacy development, one wants to monitor gender disparity so females' literacy as compared to males' is included, also here following PARIS21 and EFA.

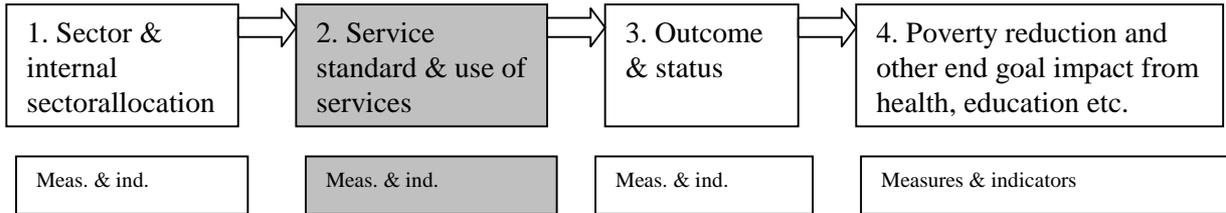
Finally, we will include the dropout rate on the indicator list. The frequency of dropouts indicates the education system's ability to 'process' those who actually enter the system. Dropouts are counted as all discontinuations whether between or within grades, with the exception of deaths and serious illness. Dropout rates are different from enrolment rates, as the numerator in the former is those enrolled, not the whole population cohort(s).

Figures on dropouts are not reported explicitly in international statistics. Dropout counts or estimates are, however, needed for the calculation of coefficients of efficiency. UNESCO presents this indicator

for many countries, mostly on an annual basis. It is usually derived using cohort analysis models that are based on a number of assumptions. The availability of regular data from registers or surveys is thus questionable.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
IDG - 6/ MDG - 7. Completion of 4 <sup>th</sup> Grade of Primary Education	PARIS21, EFA, UNESCO, WDI	A, x
Percentage of cohort reaching grade 5	World Bank, UNESCO	A, x
Completion of Primary Education	UNESCO	A-F, x
Completion of Secondary Education		F,x
Completion of Tertiary Education		F,x
IDG - 7/ MDG - 8. Literacy rate of 15 to 24 Year-olds	PARIS21, EFA, WEI, UNDAF-CCA, WDI	A,a
IDG - 9/ MDG - 10. Ratio of Literate Females to Males (15 to 24 Year-Olds)	PARIS21, EFA, WDI	A,a
IDG - Adult literacy rate	PARIS21, WDI, HDR	A,a
Drop-out rate, primary education	UNESCO	A-F, x

### 3.7. Education Service Standard, Access to Education Service and Use of Education Service



As for health, the actual use of education service is affected on one hand by the need for education service and on the other hand by the education service being available, i.e. the access to schools and training and the standard offered.

Setting education apart from health, the need for basic education is easily identified, children at school age need primary education and illiterate adults need literacy training. Students passing the final class and exam at primary school/ secondary school are eligible for secondary school/ tertiary education.

This makes the statistical challenge not easier, but more straightforward. It is possible to measure educational service standard and access and when the need is well known, to follow how standard/ access and need are related to the de facto use of educational services. In fact, for primary school there are few reasons to believe that the use of schools will affect the service standard (no of schools etc.), hence it is reasonable to read the statistics over time as figures for how standard/access and need (basic need and perceived need) do affect the use of educational service such as school attendance.

Hence the task is to present statistics for the availability and use of education service given the basic need for schooling in a given social group, geographical area, gender- or age-group. It will then be possible to present statistics for how resource-allocation and service level are related to outcome

### **3.7.1. Education Service Standard**

Educational standard/quality/efficiency has several dimensions:

- Physical infrastructure and equipment: Number and geographical distribution of schools, number of classrooms, standard of buildings, furniture, facilities, textbooks
- Organizational: Number of shifts, class divisions, class size and combining two or more grades in one class.
- Human resources: Teachers' qualifications, teachers' salary systems, pupil-teacher ratio

Regular indicators on physical aspects/equipment are usually limited to the number of schools and classrooms. This does not imply that such data neither is available nor it is relevant/important. In many countries such information is included in ad hoc household or community surveys. But it is still a lack of standardization, whether reflecting cultural differences in the evaluation of standards or no acknowledgement of the importance. While a low standard is accepted along some dimensions, other dimensions such as lack of proper separation between latrines for girls and boys are mentioned as reasons for drop out of girls.

Also for organizational issues, there is a lack of regular statistics. Research shows however that three shifts are related to lower school attendance and regular statistics should be collected.

Information on human resources will however usually be collected and presented but limited to teachers' qualifications, teacher/pupil ratio and number or ratio of female teachers.

### **3.7.2. Access to Education Service**

As indicator of access to educational services we recommend proportion of population within a given distance of the type of service in question. Transport to school is in most cases a matter of walking and hence for comparison distance should be measured in terms of length, say 5, 10 or 15 kilometers, not in (travel) time. Such data are not available in international education statistics tables, but collected so frequently in ad hoc surveys that we recommend this indicator to be included at this stage.

Another access indicator is the presence of school fees. For poor families the level may be prohibitive. We have not found such data regularly reported, but for this and the distance indicator, availability and standardization should be checked in pilot countries.

### **3.7.3. Use of Education Service**

A variety of indicators on use are found on the lists. Most frequent are enrolment ratios. These measures express the percentage of a group enrolled as pupil or student. A main distinction is that between Gross and Net enrolment ratios. Gross ratios (GER) count pupils regardless of age in the numerator, while the denominator is the eligible official school-age population. GER therefore may exceed 100 per cent, and such values relatively often occur in international statistical tables. Net enrolment ratios (NER) express the percentage of a given group that actually is enrolled, and have thus an upper bound at 100 per cent. Both types of ratios may be refined by further specification of the group: Primary education, secondary education, or by one-year cohorts. When referring to the cohort at official entrance-age, the term intake rate is used.

Our view is that net enrolment rates are to be preferred, as their variation range is fixed. To calculate net rates more specific data are needed however, and interpretation of a rate and its complementary value is conditioned upon the presence of over- and/or under-aged enrolment. For education at tertiary level one obvious problem is the determination of what is an appropriate school age.

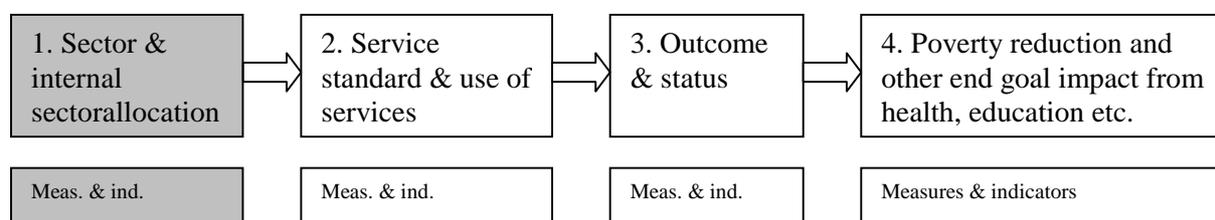
The PARIS21 list of core indicators comprises Net Enrolment in Primary Education. This seems reasonable, as the long-term goal is universal primary education. It further includes 'Ratio of Girls to Boys in Primary and Secondary Education' as one of two indicators on gender equality.

We are in favor of NER for primary and secondary level. For the tertiary level UNESCO suggests to use the number of students in tertiary education per 100 000 inhabitants as an indicator. Thus the

problem of defining the official age is omitted, but this indicator is of course dependent upon the age-structure in the population.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
<b>Education Service Standard</b>		
No of children at primary school age by no of classrooms		x
No of primary school children by no of classrooms		x
Percentage of primary school teachers having the required academic qualifications	EFA	F,x
Percentage of primary school teachers who are certified to teach according to national standards	EFA	F,x
Pupil-teacher ratio	EFA, UNESCO, OECD, WDI	A, x
Share of female teachers	UNESCO, WDI	F, x
Share of teachers in private schools	UNESCO	x
Teachers' annual gross salaries in PPP\$	UNESCO/OECD	N
<b>Access to Education Service</b>		
Share of children at primary school age within 5, 10 and above 10 km		N
Share of primary school children paying total fees above such as US\$ 0.01 per day (use both national & international limit).		N
<b>Use of Education Service</b>		
IDG - 5/MDG - 6. Net Enrolment Ratio, Primary Education	PARIS21,EFA, UNDAF-CCA, UNESCO, WDI	F, x
Gross Enrolment Ratio, Primary Education	EFA, UNESCO, WDI	A,a
Apparent Intake Rate	EFA, UNESCO	A-F, x
Net Intake Rate	EFA, UNESCO	F, x
IDG - 8/ MDG - 9. Ratio of Girls to Boys in each of Primary, Secondary and Tertiary Education	PARIS21, UNESCO	A, x
Transition from primary to secondary education	UNESCO	F, x
Age-specific enrolment ratios	UNESCO	A-F, x
Numbers of students in tertiary education per 100000 inhabitants	UNESCO	A,a-x
Percentage of repeaters	UNESCO,OECD, WDI	A, x

### 3.8. Education Sector Resource Allocation



Resource allocation whether between or within sectors are presented jointly. However, when presenting the statistical link between resource allocation and service offered, the focus is sector by sector. For presentation of resource allocation please refer to paragraph 2.12.

### 3.9. Water and Sanitation Outcome and Status of Waterborne Disease Prevalence

Access to clean water is one element of access to safe and sufficient food and drinks and the aim is both to increase the access and ensure sufficient access. Following the general logic of this document, access to clean water is a matter of service standard. The outcome would be to ensure that all people always drank clean and safe water. This is not only a matter of having access to clean water but also to ensure proper storage and use of the water. However, adequate statistical information on proper water storage, water use and sanitation behavior is only available on an ad hoc basis.

Hence our recommendation is to focus on one potential impact of the lack of clean water consumption, i.e. waterborne diseases. Waterborne diseases in this perspective would include a broad range, from tooth health and eye diseases to dysentery or any type of diarrhoea. For this general monitoring there is no need to identify the incidence of specific waterborne diseases, but rather to monitor the incidence of any type of diarrhoea. Such information might be available from ad hoc surveys and for children below 5 attending postnatal care. Then we are also able to avoid the problem of lack of information on incidence of specific diseases with similar symptoms, and the lack of systematic information on eye disease and tooth health. It should of course be stressed that diarrhoea might be caused by several factors, but the incidence will still be an indicator of consumption of clean or infected water.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
Incidence of diarrhoea		A, x
Incidence of diarrhoea among children <5 attending postnatal care.	UNICEF	A-F, A

### 3.10. Water and Sanitation Service Standard

Over the last decades governments and donors alike have been concerned about adequate supply of clean and safe water. With a proper user orientation provision of basic standard in both urban and rural areas has improved, but still large shares of the population lack access to clean water either throughout the year, or more widespread to clean water even in the rain season.

Unfortunately few countries have proper administrative statistics on the access to clean water. But fortunately enough a standard population census, health surveys and even general household surveys will usually collect information on what is the main water source of the household and hence allowing for not regular, but quite often up-dates of access to clean or safe water.

We would also argue that information is needed for distance to the water source in rural areas and for sanitation service being used. Quite a number of censuses and surveys might even collect information on type of sanitation use and service and about the distance to water source in rural areas. This information is however more scarce and we only recommend to consider including this information at the national level.

One of the Millennium Targets is to improve the lives of slum dwellers and they have launched two indicators, one referring to sanitation and one to secure tenure<sup>8</sup>. The sanitation indicators refer to "improved" sanitation. We would rather recommend a less relative indicator being "safe sanitation".

<sup>8</sup> Refer to paragraph on economic well-being.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
IDG - 17/ MDG - 29 <sup>9</sup> . Population with access to safe water. (Throughout year, in dry season only, no access)	PARIS21 UNFPA: State of the World's Population 1999 World Bank: World Dev. Indic. 1999 UNICEF: State of the World's Children 2000	A, x
To be considered at national level: Distance to water source; =< 500m, =< 1 km, =< 3 km, > 3 km		N,x
MDG - 30 <sup>10</sup> . Population with access to safe sanitation	UNDP, MDG	F,x
To be considered at national level: Sanitation system and service	World Bank: World Dev. Indic. 1999 UNICEF: State of the World's Children 2000	

### 3.11. Targeted Poverty Reduction Policy Outcome and Status

Poverty reduction is both an end goal of all sector activities and an outcome of dedicated poverty reduction activities. Poverty reduction as an end goal is addressed in paragraph 2.2. In this paragraph we address poverty reduction as an outcome of targeted activities such as presented in the next paragraph.

Targeted poverty reduction and eradication programs aim to lift certain poor groups up from poverty, often from extreme poverty to a more decent level such as above a national poverty line. The clear candidate indicators to follow the outcome of such policy actions is the family of money metric poverty indicators measuring expenditures and consumption based upon income in cash and kind plus consumption of own production. These indicators are already presented in paragraph 2.2.

As discussed in paragraph 2.2., choosing an international poverty line has clear drawbacks. Obviously a national poverty line referring to the national situation is preferred by policy makers for internal use. But there are also theoretical reasons to avoid arbitrary poverty lines. Of course for international comparisons, these may be handled by some methodological analysis of how robust a poverty analysis is to the level of the poverty line, but in order to monitor the outcome of targeted interventions a national poverty line is the recommended choice.

As for any poverty analysis it is important to include not only a headcount, but also other indicators showing the level, intensity and distribution of poverty

<sup>9</sup> MDG - 29 refers to same target "sustainable access to safe drinking water". But the indicator is slightly different "sustainable access to an improved water source". It is reasonable to imagine there is no intended difference, but piped water in urban areas which might be contaminated every rain season due to sinking ground water level is not safe but still improved.

<sup>10</sup> MDG - 30 refers to "access to improved sanitation". It is reasonable to imagine there is no intended difference between safe and improved, but as addressed above it is important not to make an indicators too relative.

### 3.11.1. *Our recommendation for indicators of targeted poverty reduction policy outcome and status*

Hence the following poverty measures are recommended to monitor poverty reduction outcome:

- The national poverty line whether based upon an absolute, a relative or a combined approach. We recommend presenting the three poverty indices P<sub>0</sub>, P<sub>1</sub>, P<sub>2</sub>.
- Inequality measured as the poorest fifth's share of the national income.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
Poverty based upon national poverty line, Poverty incidence P <sub>0</sub> , Poverty Gap P <sub>1</sub> , Poverty Intensity P <sub>2</sub>	PARIS21, World Bank	A, 3-10
IDG - 3. Inequality: Poorest fifth's share of national consumption	UNSC, ECOSOC, WB, UNDP, PARIS21	A, 3-10

## 3.12. Poverty Reduction Policy and Poverty Reduction Actions

There is hardly any international consensus on the elements within a poverty reducing policy or poverty reducing actions. This might include as least the following three elements:

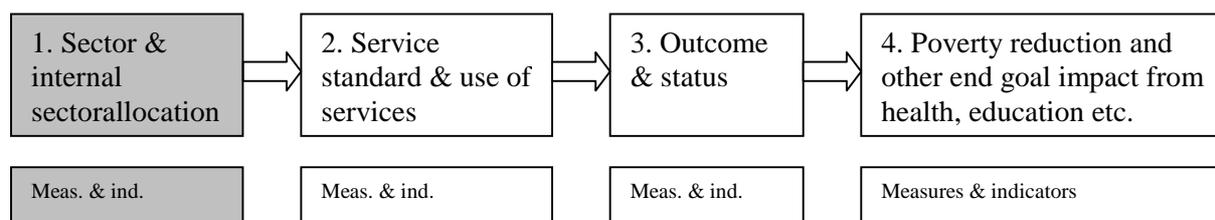
- Pro-poor policy.
- Targeted poverty policy towards certain geographical areas, socio-economic or other special groups.
- Poverty reducing actions such as social funds and community development activities.

At this stage in time, there is no common understanding of the conceptual limitations of any of these categories. Hence, the only possible indicators are whether a given country has an official poverty reduction policy and poverty reducing actions and which of these elements are included. Some countries are actually scanning the existing policy across sectors to identify policies and actions where the government might attach the poverty policy/ action label. Other countries apply a more limited approach and would include only dedicated targeting policies and actions. The obvious indicator to recommend would be whether the country has an official poverty strategy and whether they have prepared the World Bank and IMF recommended Poverty Reduction Strategy Paper (PRSP). This would include whether they have prepared an interim PRSP (iPRSP), a final PRSP and a Poverty Monitoring System.

However at the national level indicators of any policy reducing policy activities or policy reducing actions would be in high demand and interest and we definitely recommend including these. That could be indicators such as amount spent and leakage observed of targeted cross-subsidies or amount spent on different types of community development activities.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
Country has prepared an official poverty reducing policy/ actions, an iPRSP, a final PRSP and a Poverty Monitoring System	World Bank, IMF	A,a

### 3.13. Sector and Internal Sector Resource-allocation



#### 3.13.1. Sector policy

As for macro policy we expect information on legal framework and policy decisions mainly to be available at the national level and there be presented in the form of event calendars.

#### 3.13.2. Sector resource allocation and Internal resource allocation

During the last decade there has been an increasing interest in information on the share of resources allocated to primary social service expenditures and/or to social sector expenditures in general. The 20/20 initiative at the UN Social Summit in Copenhagen in 1995 was instrumental in ensuring such a focus. Still relatively little work has been undertaken to develop internationally acknowledged standards in this area and both targets and indicators are discussed. The original focus was on expenditures to any type of education and health expenditures. Later on a revised proposal focused on a 15/15 initiative aiming at securing a budget share of 15 percent for primary education and health. Others have suggested also adding expenditures for secure water supply and sanitation. Currently the pendulum emphasis seems to move back towards the original 20/20 initiative. The 5+ summits in 2000 should guide the main emphasis for presentation of measures and indicators.

Since our objective is to follow the process we would in any case need statistics both on resource allocation across sectors and within sectors such as for primary, secondary and tertiary education.

All countries will present statistics for public resource allocation across sectors at the national level. All countries will also present disaggregated information, i.e. resource allocation within sectors. But many countries tend to present resource allocation within each sector by administrative type of expenditures rather than functional breakdowns.

The main data source for presentation of sector resource allocation has for many years been the "Government Finance Statistics Yearbook" presented annually by IMF. This publication was redesigned for the 1989 yearbook. Up to and including 1988 (IMF 1988) this yearbook included disaggregation of data for both expenditures and revenues, including information on intrasectoral resource allocation within the educational and the health sectors. The disaggregation was somewhat limited such as Primary and Secondary Education combined versus Tertiary Education and Health expenditures split on Hospitals; Clinics & practitioners; Medicaments, prostheses, etc. and Other. However from 1989 and up to date (IMF 1999c) IMF decided to present less detailed information and hence some of the data series were discontinued in 1988. The IMF statistical department informs us that IMF has continued to collect disaggregated information but does not enter the data in the computer nor presents the information in the annual statistics. However, there are all reasons to assume that this information will be available for some countries at the national level.

The reader might assume that developed countries present more disaggregated information. But there are no systematic trends here. Often OECD countries would rather disaggregate resource allocations within each sector across administrative breakdowns rather than functional, while developing countries in many cases present resource allocation across functional breakdowns. The reader might speculate that this is a strategy to satisfy donor requirements in order to gain additional donor support, but we have no information on this issue.

Around half of the countries where NORAD has a long-term partnership did submit intrasector resource allocation to IMF, which in turn presented this on an annual basis up to 1988. This indicates

that this information is available from quite a large share of the countries per date. Unfortunately even Norway did not submit the intrasector resource allocation to IMF during the 1980s.

In order to follow the effects of sector resource allocation and intrasector allocation we would obviously need even further details. There is unfortunately no systematic global presentation of such information within the institutions visited so far. However the World Bank presents a very interesting document for so called Public expenditure review (World Bank 1996) and a number of country level experiences, which are summarized the following year (World Bank 1997). Given that some details are presented in the IMF publications up to 1988 and a renewed focus on public expenditures (World Bank 1996: 24) there are however realistic possibilities that this information will be available at the national level.

Private resource allocation for social sector service comprises both free or subsidized services and commercial provision. Information should ideally include the following sub-sectors:

- Free or subsidized social sector services usually provided by NGOs in an institutional scale.
- Traditional social services provided at commercial terms such as traditional medicine and artisan apprenticeship.
- Modern social service provided at business terms such as modern private health service and education, both provided both at institutional scale and private small scale.

So far we have not identified any presentation of private expenditure but again the World Bank (1996) document presenting a framework for public expenditure reviews does include a discussion on the need for a private and public mix. But even this publication does not discuss how to obtain this information. This is somewhat strange. Usually there will be two sources for this information, both from a consumption perspective in a Household budget survey/ Consumption and expenditure survey and from the production side in a National account perspective. Again we have to approach the data needs at a national level. We do expect that information could be collected for each of the social sectors. It is not possible to tell how far we can go. Ideally we would like to continue splitting information on one sub-sector such as primary education on salaries, maintenance and educational material. A further search into data availability at the national is needed to decide whether this is feasible or not.

Neither the documents on public expenditure review nor the disaggregated statistical information from IMF (1988) disaggregate expenditures on secure water supply and sanitation. Here further work is needed to identify internationally acknowledged subcategories.

To calculate shares we would need to identify private resource allocation within all sectors. This is a far too large work involving a number of critical decisions on how to identify private resource allocation for public goods and services. Hence our option would either be to calculate such as public and private allocation for health etc as shares of total public resource allocation. This would obviously add up to more than 100 percent and whether or not to present this information requires further discussions.

### ***3.13.3. Health sector resource allocation***

In principle resource allocation within the health sector will follow the general approach as presented above. However some issues which do require a general awareness, might be need a special concern for the health sector. Among these are the following ones:

- The relative role of private and NGO service provision
- The relative importance of private financing
- The degree to which decentralization implies responsibility for financing of services at sub-national level (e.g. block grant)
- Whether or not salaries are included and posts actually filled

Normally the official figures for allocations to essential services or PHC do not include private sector financing and provision, NGO financing and provision, nor private out-of-pocket payments, which

may be substantial amount. Another important factor rarely included in official figures is donor funds that are not channeled through the normal system. These are funds that go directly to projects/programs or other types of financial/in-kind support to sub-national level and below. In decentralized systems where allocations are done at sub-national level (i.e. provincial or district level), it is often difficult to calculate overall funds nationally allocated to essential services. Statistics on salary level might not be available according to service level, and require a special concern.

#### **3.13.4. Education sector resource allocation**

The global educational institutions focus on quite specific measures and indicators of educational sector resource allocation.

EFA focuses on primary education and highlight 2 indicators on resource allocation as follows:

- Public current expenditure on primary education a) as a percentage of GNP; and b) per pupil, as a percentage of GNP per capita
- Public expenditure on primary education as a percentage of total public expenditure on education

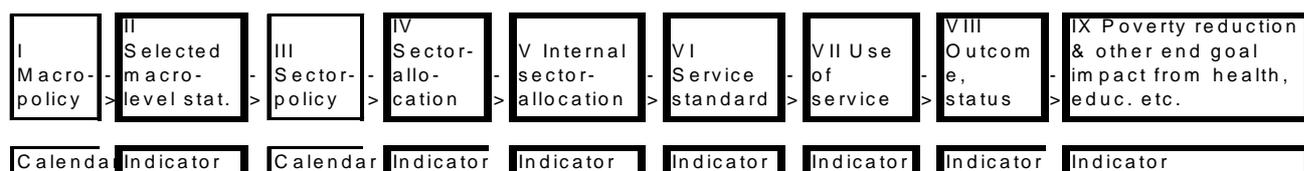
UNESCO recommends quite disaggregated information as follows:

- Public current expenditure per pupil (student) as percentage of GNP per capita.
- Teachers' salaries and benefits as percentage of public current expenditure on education.
- Public expenditure on education as percentage of total government expenditure.
- Percentage distribution of public current expenditure by level of education.
- Educational expenditure as a percentage of GDP for all levels of education combined, by source of funds.
- Public educational expenditure as a percentage of total public expenditure
- Direct expenditure for institutions and transfers to the private sector as a percentage of total government expenditure. Tertiary level of education combined
- Distribution of public and private sources of initial funds for educational institutions
- Percentage of all public expenditure for educational institutions for public institutions, government dependent private institutions, independent private institutions
- Expenditure on educational services per student in public and private institutions by level of education in PPP converted US\$
- Educational expenditure by level of education, resource category for public and private institutions

We find it difficult to recommend these indicators rather than the general ones, because these indicators propose to present quite specific indicators, but then with a focus on the overall education sector. We would rather recommend presenting more statistics on resource allocation at a more general level but than by educational level with a special emphasis on primary education.

Measure/Indicator, Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A- annual, n-every nth year, x-ad hoc)
Percentage of public expenditures on social services	UNDAF/CCA	A,a
Health sector public expenditure	IMF	A,a
Health sector share of public expenditure	IMF	A,a
Health sector public & private expenditure	IMF	A,a
Health sector public & private share of public expenditure	IMF	A,a
Intra health sector public expenditure: Hospitals; Clinics and Practitioners; Medicaments, prostheses, etc.; and Other	IMF	F, A
Health sector share of public expenditure: Hospitals; Clinics and Practitioners; Medicaments, prostheses, etc.; and Other	IMF	F, A
Health sector public & private expenditure: Hospitals; Clinics and Practitioners; Medicaments, prostheses, etc.; and Other	IMF	F, A
Health sector public & private share of public expenditure: Hospitals; Clinics and Practitioners; Medicaments, prostheses, etc.; and Other	IMF	F, A
Education sector public expenditure	IMF	A,a
As above, as % of GNP	UNESCO: World Education Indicators (WEI)	A,a
Education sector share of public expenditure	IMF, UNESCO: WEI	A,a
Education sector public & private expenditure	IMF	A,a
Education sector public & private share of public expenditure	IMF	A,a
Intra education sector public expenditure: Primary, Secondary and Tertiary education	IMF	F, A
Education sector share of public expenditure: Primary, Secondary and Tertiary education	IMF, UNESCO: WEI	F, A
Education sector public & private expenditure: Primary, Secondary and Tertiary education	IMF	F, A
Education sector public & private share of public expenditure: Primary, Secondary and Tertiary education	IMF	F, A
Pupil - Teacher Ratio: Average number of pupils (students) per teacher	UNESCO: WEI	A,a
Secure water supply and sanitation sector public expenditure	IMF	A,a
Secure water supply and sanitation sector share of public expenditure	IMF	A,a
Secure water supply and sanitation sector public & private expenditure	IMF	A,a
Secure water supply and sanitation sector public & private share of public expenditure	IMF	A,a

### 3.14. Macro level, general data, & background information



#### 3.14.1. Macro policy.

World Bank, IMF and others have tried to present macro policy across countries. For the Africa region the IMF (1998) "Financial Sector Development in Sub-Saharan African Countries" and the World Bank (1994) "Adjustment in Africa, Reforms, results, and the road ahead" are very interesting examples on how to present policy decisions in a statistical manner and how to analyze this information. This type of work requires a number of controversial categorization. For research purposes such analysis is very interesting but hardly for a systematic statistical presentation. The IMF (1998) is however an interesting example on how legal economic framework and policy decisions could be presented at an international level.

However, we do expect that this type of information on legal frameworks and policy decisions be mainly presented at the national level.

#### Macro resource allocation

In our context we are only interested in a limited set of macro policy and macro policy indicators. The focus should be on a few measures/ indicators and a list of major events at country level.

The measures and indicators would focus on the aggregate level of public spending, the public budget balance/ deficit, and the composition of a possible public budget deficit (revenues/ expenditures). Whether to include factors affecting the sustainability of a budget deficit is still to be considered. If so a range of measures and indicators need to be included, such as projections of debt to GDP ratio, target inflation rate, real interest rate and growth rate.

An alternative approach would be not to move into statistics presenting the sustainability of a budget deficit except for extreme cases and then at country level. Then we could limit the macro economic measures/ indicators to the three issues listed above.

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
IDG - External debt (US\$) as percentage of GNP	PARIS21, UNDAF/CCA	A,a
Decadal growth rate of GNP per capita (US\$)	UNDAF/CCA	A, 10
IDG - Investment as percentage of GDP	PARIS21	A,a
IDG - Trade as percentage of GDP	PARIS21, UNDAF/CCA	A,a
IDG - Aid as percentage of GNP	PARIS21	A,a
Public expenditure - Total public expenditure and lending minus repayment	IMF	A,a
Public revenue - Total revenue and grants	IMF	A,a
Public expenditure in percent of GDP - Total expenditure and lending minus repayment in percent of GDP	IMF	A,a
Public revenue in percent of public expenditure - Total revenue and grants in percent of GDP	IMF	A,a

#### 3.14.2. General economic, social and demographic data and background information

Presenting general data serves several purposes. First, there is a need to present the basic information of a country. Second there is a need to present the country within a regional context or within the global context. Third there is a need to present background data to be used for a number of data

constructs such as Gross National Product, Consumer Price Inflation, the size of the Labor Force or the number of Children at school age. As far as possible these background data are presented when presenting the data constructs, but some data are so general that it would be better to give an overall presentation.

### ***Population***

Population measures and indicators:

- PARIS21: Total population
- Estimated population size by age- and sex-groups
- PARIS21: Total Fertility Rate

### ***Labor force, dependency ratio***

Labor force:

- Share of population 15-59 years of age in labor force by gender and urban/ rural dimension

Dependency ratio:

- Number of dependants (Children 0-14 years, elderly 60+ years, disabled persons) per breadwinner (non-disabled 15-59 years of age).

### ***Gross National Product***

The main reference presentation of international economic statistics is done by International Monetary Fund (IMF) in "World Economic Outlook" (IMF 1998), presented twice a year. This source includes national accounts economic statistics based upon the SNA standard applied in each country. Currently some countries have adopted the new SNA 1994 standard while others remain with the previous standard. The new standard includes a broader set of services and hence tends to increase the overall Gross National Product (GNP) and related measures.

The report presents the following measures and indicators of interest within our context:

- Gross domestic product (GDP)
- IDG - Gross national product (GNP)
- IDG - GNP per capita
- Consumer Price Indices (CPI)
- GDP deflators
- Exchange rate US\$
- PPP \$ rate
- IDG - External debt (US\$) as percentage of GNP
- Decadal growth rate of GNP per capita (US\$)
- IDG - Investment as percentage of GDP
- IDG - Trade as percentage of GDP
- IDG - Aid as percentage of GNP

### ***Price indices***

Consumer Price Index. Three options, in priority:

- National composite consumer price index.
- National urban composite consumer price index.
- Capital consumer price index.

If available:

- High and low cost CPI.

Producer price index and price level index for one or two main crops:

- Maize in 90kg bags

Wage index:

- Urban unskilled male and female pieceworker wage index
- Rural unskilled male and female pieceworker wage index

### ***Recommended measures and indicators***

Measure/Indicator - Name/ Description	Recommended/ used by	Availability (A-all, F-a few, N-none) & Regularity (A-annual, n-every nth year, x-ad hoc)
IDG - Total population	PARIS21, UNDAF/CCA, BSSA	A, 10
Estimated population size by age- and sex-groups	MNSDS, UNDAF/CCA	A,a
IDG - Total fertility rate	PARIS21, UNDAF/CCA	A, 5 - 10
Share of population in labor force		A, 10
Dependency ratio		A,a
		A, 5 - 10
Gross domestic product (GDP)	UN Stat. Comm. (SNA 1994), World Bank, IMF	A,a
IDG - Gross national product (GNP)	PARIS21, UN Stat. Comm. (SNA 1994), World Bank, IMF	A,a
IDG - GNP per capita	MNSDS, PARIS21, UNDAF/CCA	A,a
Consumer Price Indices CPI	UN Stat. Comm. (SNA 1994)	A,a
National composite consumer price index.	Alternatives	F, A
National urban composite consumer price index.	Alternatives	F, A
National capital consumer price index.	Alternatives	F, A
High and low cost CPI.	Alternatives	F, A
Crop price index		F,x
Urban unskilled male and female pieceworker wage index		x
Rural unskilled male and female pieceworker wage index		x
GDP deflators	UN Stat. Comm. (SNA 1994)	A,a
Exchange rate US\$	All agencies	A,a
PPP \$ rate	UN Stat. Comm.	A,a
IDG - External debt (US\$) as percentage of GNP	PARIS21, UNDAF/CCA	A,a
Decadal growth rate of GNP per capita (US\$)	UNDAF/CCA	A, 10
IDG - Investment as percentage of GDP	PARIS21	A,a
IDG - Trade as percentage of GDP	PARIS21, UNDAF/CCA	A,a
IDG - Aid as percentage of GNP	PARIS21	A,a
Consumer Price Indices CPI	UN Stat. Comm. (SNA 1994)	A,a

### **3.15. Statistical relationship between resource allocation, service standard, outcome, end goal impact and feed back.**

As already stressed this approach does not aim at testing any causal relationship, but has a more modest objective. The presented approach allows for a joint presentation of statistical information on the development over time or across geographical and socio-economic categories for two and two steps of the policy chain from resource allocation through service standard, outcome, end goal impact and feed back.

Presenting two sets of statistical information, as follows, might do this:

- First, to present statistical information for each separate step in this policy chain. This presentation should include both information over time and across geographical areas and socio-economic groups.
- Second, to present statistical information linking two and two steps.

The former set is already presented.

The following figure present the latter set. For each social sector and for each step in the policy chain a set of core indicators is selected. By combining the indicators at a certain step, say **m**, with all indicators, say **n**, at the subsequent step in the chain, a set  $m \times n$  bivariate associations is obtained to present the relationships between these two steps for the sector in question.

The information is to be presented from two perspectives:

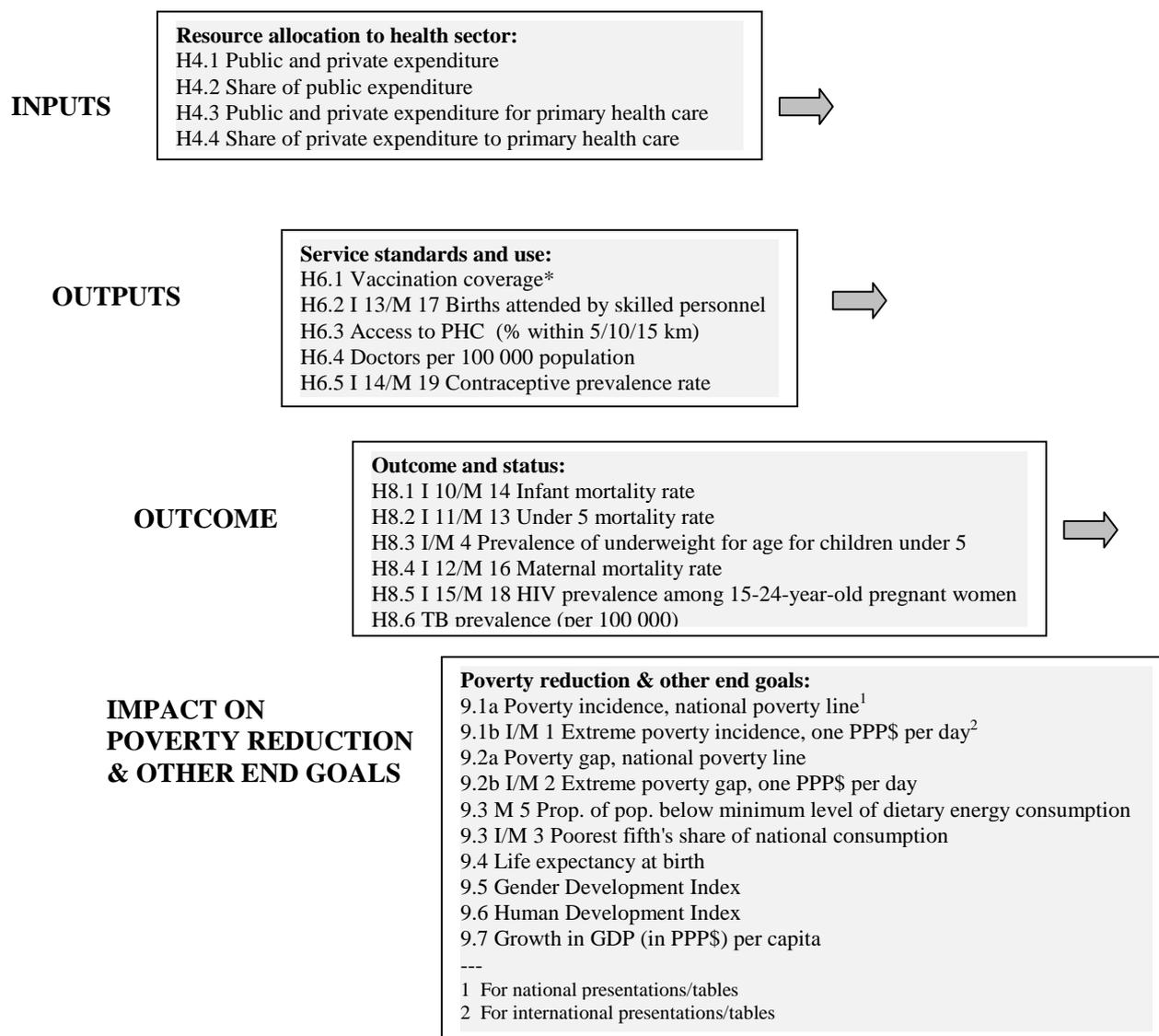
- country-wise, with focus on the country and development over time
- comparative, with focus on the same relationship for multiple countries, not letting go the longitudinal dimension

To facilitate comparisons, whenever relevant, 1990 is used as a 'base' year, and average values for African countries (where data is available) are taken as benchmark values when indicators are expressed as relative indices. We have chosen 1990 as this is the base year for the quantified development goals as approved by the series of UN Conferences held in the 1990s and expressed in the PARIS21 initiative.

End goal indicators and measures are common for all three sectors.

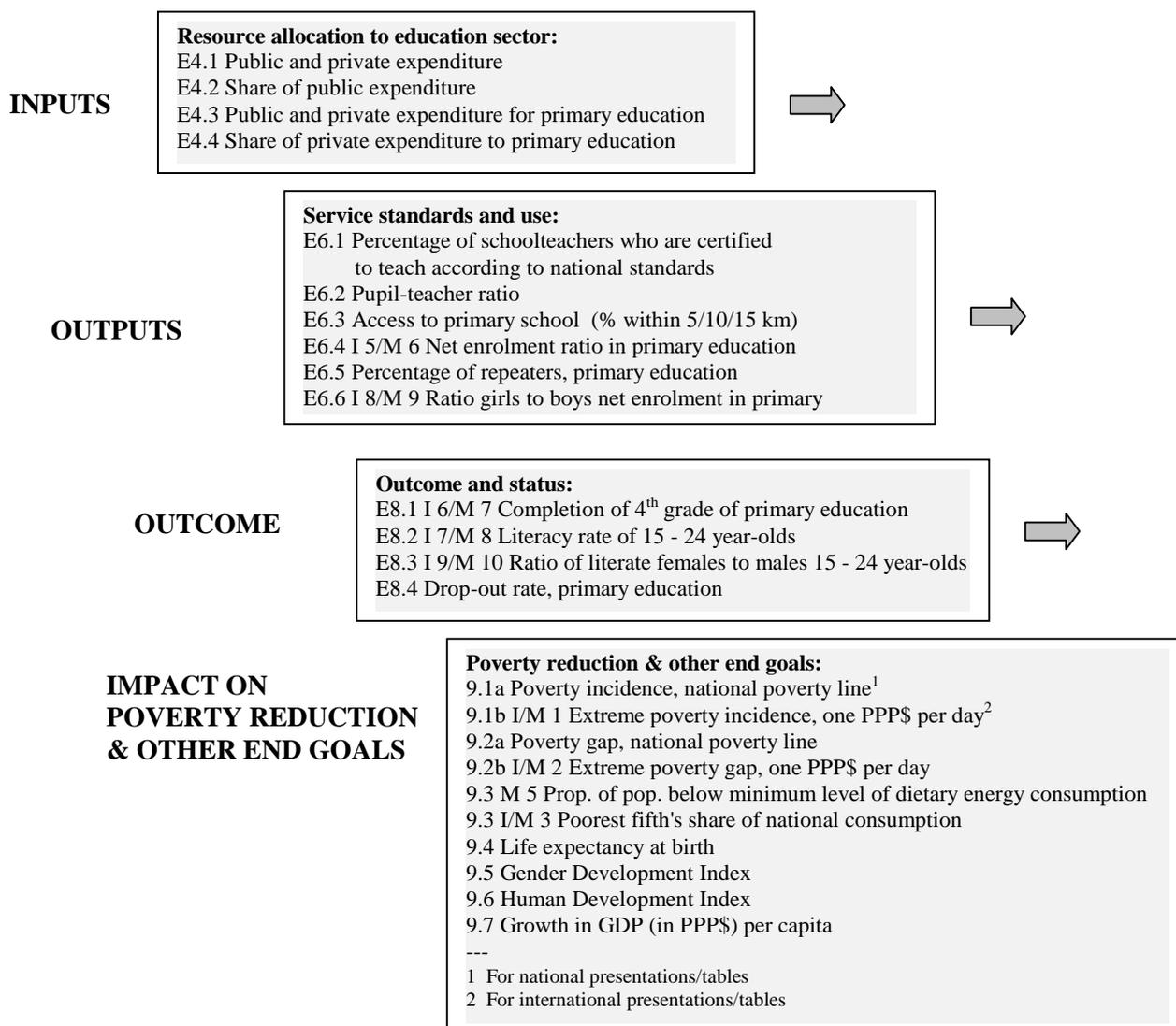
In a graphical manner the links between each level are presented in the following pages, first sector by sector and then summarized in one single presentation.

## Health sector



\* - Some combinations such as H6.1 x H8.5, H6.2 x H8.6 and H6.5 x H8.6 are considered to be of minor relevance and are not planned for presentation.

## Education sector



# Water and sanitation sector

**INPUTS**

**Resource allocation to water and sanitation sector:**  
 S4.1 Public and private expenditure  
 S4.2 Share of public expenditure



**OUTPUTS**

**Service standards and use:**  
 S6.1 I 17/M 29\* Percentage of population with access to safe water  
 S6.2 Distance to water source (500m/1 km/3 km)  
 S6.3 M 30\* Percentage of population with access to safe sanitation  
 \* M29 & 30 use "improved" rather than "safe".



**OUTCOME**

**Outcome and status:**  
 S8.1 Diarrhoea disease incidence of under 5 year-olds  
 S8.2 Incidence of diarrhoea , no age limit



**IMPACT ON POVERTY REDUCTION & OTHER END GOALS**

**Poverty reduction & other end goals:**  
 9.1a Poverty incidence, national poverty line<sup>1</sup>  
 9.1b I/M 1 Extreme poverty incidence, one PPP\$ per day<sup>2</sup>  
 9.2a Poverty gap, national poverty line  
 9.2b I/M 2 Extreme poverty gap, one PPP\$ per day  
 9.3 M 5 Prop. of pop. below minimum level of dietary energy consumption  
 9.3 I/M 3 Poorest fifth's share of national consumption  
 9.4 Life expectancy at birth  
 9.5 Gender Development Index  
 9.6 Human Development Index  
 9.7 Growth in GDP (in PPP\$) per capita  
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 1 For national presentations/tables  
 2 For international presentations/tables

**INPUTS**

**Resource allocation to education sector:**

- E4.1 Public and private expenditure
- E4.2 Share of public expenditure
- E4.3 Public and private expenditure for primary education
- E4.4 Share of private expenditure to primary education

**OUTPUTS**

- Service standards and use:**
- E6.1 Percentage of school teachers who are certified to teach according to national standards
  - E6.2 Pupil-teacher ratio
  - E6.3 Access to primary school (% within 5/10/15 km)
  - E6.4 I 5/M 6 Net enrolment ratio in primary education
  - E6.5 Percentage of repeaters, primary education
  - E6.6 I 8/M 9 Ratio girls to boys net enrolment in primary education

**OUTCOME**

- Outcome and status:**
- E8.1 I 6/M 7 Completion of 4<sup>th</sup> grade of primary education
  - E8.2 I 7/M 8 Literacy rate of 15 - 24 year-olds
  - E8.3 I 9/M 10 Ratio of literate females to males 15 - 24 year-olds
  - E8.4 Drop-out rate, primary education

**Poverty reduction & other end goals: IMPACT**

- 9.1a Poverty incidence, national poverty line<sup>1</sup>
- 9.1b I/M 1 Extreme poverty incidence, one PPP\$ per day<sup>2</sup>
- 9.2a Poverty gap, national poverty line
- 9.2b I/M 2 Extreme poverty gap, one PPP\$ per day
- 9.3 M 5 Prop. of pop. below min. level of dietary energy consumption
- 9.3 I/M 3 Poorest fifth's share of national consumption
- 9.4 Life expectancy at birth
- 9.5 Gender Development Index
- 9.6 Human Development Index
- 9.7 Growth in GDP (in PPP\$) per capita

**Outcome and status:**

- S8.1 Diarrhoea disease incidence of under 5 year-olds
- S8.2 Incidence of diarrhoea, no age limit

**Service standards and use:**

- S6.1 I 17/M 29\* Percentage of population with access to safe water
- S6.2 Distance to water source (500m/1 km/3 km)
- S6.3 M 30\* Percentage of population with access to safe sanitation

**Resource allocation to water and sanitation sector:**

- S4.1 Public and private expenditure
- S4.2 Share of public expenditure

**Resource allocation to health sector:**

- H4.1 Public and private expenditure
- H4.2 Share of public expenditure
- H4.3 Public and private expenditure for primary health care
- H4.4 Share of private expenditure to primary health care

**Service standards and use:**

- H6.1 Vaccination coverage\*
- H6.2 I 13/M 17 Births attended by skilled personnel
- H6.3 Access to PHC (% within 5/10/15 km)
- H6.4 Doctors per 100 000 population
- H6.5 I 14/M 19 Contraceptive prevalence rate

**Outcome and status:**

- H8.1 I 10/M 14 Infant mortality rate
- H8.2 I 11/M 13 Under 5 mortality rate
- H8.3 I/M 4 Prevalence of underweight for age for children under 5
- H8.4 I 12/M 16 Maternal mortality rate
- H8.5 I 15/M 18 HIV prevalence among 15-24-year-old pregnant women
- H8.6 TB prevalence (per 100 000)

## 4. Why and how statistics are crucial

### 4.1. Why and how statistics with a focus on end goals are crucial

The PARIS21 initiative argues in short for the International Development Goals and why statistics are crucial. Their starting point is an abbreviated presentation of the IDGs as follows<sup>11</sup>:

*"The international community has agreed that by 2015:*

- *The proportion of people in extreme poverty should be reduced at least by half*
- *There should be primary education worldwide, for both boys and girls*
- *Death rates of children under five should be cut by two-thirds - and maternal mortality by three-quarters"*

They argue that

*Good statistics are essential to paint an objective picture of a country's economic and social condition. Good statistics allow comparisons with other countries and are the key to effective policymaking. Official statistics are essential in indicating those people and regions in greatest need, and best use of scarce resources in improving health, education etc.*

They stress that the Government ensures that good statistics are produced, but everyone benefit along the following two lines:

*Using statistics to judge a country's progress. Good statistics allow governments to report back to the people on the progress of its policies and empower the citizen to evaluate their success. They are a key factor in making governments transparent and accountable to the people. Good statistics are a cornerstone of democracy.*

*Using statistics to make individual choices. An informed citizen is a better citizen. Statistics enable people to make better decisions about their everyday lives. Statistics are essential for business and industry to make informed decisions.*

### 4.2. Why and how statistics with a focus on the processes are crucial

While good statistics on end goals are essential to paint a picture and to show where to allocate scarce resources;

*Good statistics on the steps between or the process from resource allocation to poverty reduction and other end goals are fundamental in order to learn whether additional resources are well spent, whether outputs and use lead to increased outcome as better social sector achievements and status and whether an improved outcome contributes to poverty reduction and other end goals.*

The following paragraphs outline not only why but also how good statistics may assist planners and policymakers.

#### 4.2.1. *Painting a picture of economic and social conditions compared with other countries and over time*

The first and essential use of statistical information is to paint an objective picture of a country's economic and social conditions in our case with a special focus on the three social sectors of education, health and water and sanitation as well as on poverty reduction and other end goals.

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<sup>11</sup> <http://www.odysseus.it/sfabw/parisposter2Cor.pdf>; <http://www.odysseus.it/sfabw/WhyCrucial.html>; <http://www.paris21.org/betterworld/goals.htm>

This information will allow planners and policymakers with solid knowledge of what to expect to identify areas where the situation is worse or better than expected. The statistical information will allow planners and policymakers to identify areas where a special effort is needed and to identify areas that may serve as examples of good practice.

It is then a major step forward when this basic information might be compared and followed over time or with other countries. The readers may then really be able to identify recent improvements and recent pitfalls as well as issues where her or his country does better or worse than others. Such information would allow both planners and policymakers as well as public at large to identify issues where the country currently does better or worse than in other countries and where special action is justified, either to look where improvements are needed or to find "best practices" which should be replicated.

#### ***4.2.2. Comparing between geographical areas and socio-economic groups***

The next step in utilization of statistical information is on distribution of resource allocation, inputs, outputs and use, outcome, and poverty reduction and improvements in other end goals. Such information will allow planners and policymakers alike to identify current losers and gainers. This may serve as a starting point for the next round of resource allocation as well as to learn in which geographical areas and from whom you may learn how to succeed.

#### ***4.2.3. Learning when, where and whether inputs, outputs and use, outcome and poverty reduction and other end goals do follow each other***

So far the information presented is well designed to learn which socio-economic groups and regions are in greatest need, and hence might be well located to make the best use of scarce resources in improving health, education etc.

However the approach presented in this report allows the readers to learn more about where, under which conditions, and when a certain resource allocation might be followed by better service standard and use, better status and higher poverty reduction and improved end goals.

This will allow planners and policy maker to monitor the effects and to identify potential causal relationships<sup>12</sup>.

As addressed below information on each step may guide different steps in the planning and policy process.

#### ***4.2.4. Learning when, where and whether outputs and use reflect inputs***

For any efficiency-concerned government, information on whether resource allocations to different geographical areas and socio-economics groups are reflected in the outputs or service standard and use is essential. Districts being able to provide a large number of schools and classes with few resources might either reflect an efficient use of central resources or local resource mobilization. In any case identification of such success-stories may allow for others to learn how such improvements have been, and may be, achieved. If some areas have done worse than average, the explanation might be lack of efficiency or corruption. In any case this is useful information.

#### ***4.2.5. Learning when, where and whether outcome follows from outputs and use***

Equity in outputs as service standard and use might be a milestone as such, but the final aim within the sector is to achieve a real outcome: well educated people, a fully vaccinated population, proper and fast recovery, a population drinking clean water and no illness caused by non-hygienic sanitation. Hence in order to ensure equity and efficiency of resource allocation, central and local government need to focus on whether a fair distribution of resources is followed not only by a fair distribution of health clinics and other outputs, but also by a fair distribution of health status and other outcome.

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<sup>12</sup> Only well based theories and proper statistical testing can allow for rejection or verification of causal relationship. Clear trends might indicate causal effects, but there might always be other factors causing parallel changes.

It is an old discussion whether a government should focus on an equitable distribution of inputs and outputs only or even take one step further addressing outcome and status.

There are no straightforward answers. But in any case such information is needed to identify geographical areas and socio-economic groups, which manage to achieve a higher outcome with given service standard and use.

#### ***4.2.6. Learning when, where, whether and how poverty reduction and other end goal achievements are related to outcome***

The final crucial question is whether, when, where, how and with what kind of time lag poverty reduction and other end goal achievements are related to outcome. This information will allow planners and policymakers to learn whether sector policy-decisions and achievements really succeed in contributing to poverty reduction and reaching towards other end goals.

The step from e.g. improved educational status to poverty reduction is complicated and requires quite a time horizon. This should inspire the statistical system to provide valid information on whether sector outcome and poverty reduction move in the same direction. At this stage it is even more important to identify geographical areas and socio-economic groups where the relationship is strong and shows clear trends. Again such areas or groups should be studied in order to learn how to ensure that an improved outcome yields reduced poverty or other end goal improvements.

### **4.3. Why and how further analysis of the data may guide planners and policymakers further ahead.**

So far the focus has been on how to identify special issues, geographic or socio-economic groups which need emphasis and follow up, and on monitoring analysis on how a certain resource allocation might be followed by improved outputs, use, outcome and improved end goals. In order to guide policymakers and planners ahead of decisions it is necessary to take the analysis some steps further into statistical analysis at micro level, to develop dedicated models or comprehensive models. A well designed data bank with measures and indicators addressed in this report will allow for such analysis.

## **5. A statistical presentation chapter**

The statistical presentation will be developed in three steps, as follows:

- A tabulation outline based upon data needs for the policy issues identified.
- Demonstration tables based upon information being available at the global level i.e. from multilateral agencies, from the World Wide Web, CD-ROMs, and tabulation reports.
- Pilot country tabulation sub-reports.

At this stage a mixture of the former two is presented, while pilot country tables will follow at a later stage.

The current outline of the presentation does reflect the likely outline for future reports, but the final reports will both be more detailed and aiming at being comprehensive while the information at this stage is only fragments and too aggregated.

### **5.1. Presentation of illustrative tables with figures and dummy tables**

The presentation is introduced with an overview showing the relationship (and lack of relationship) between resource allocation and final outcome, followed by a step-by-step presentation for each of the main monitoring steps, the relationship at each step, and finally the feed back relationship from outcome to aggregated development.

The data presented are data available at the global level. This is obviously a limited set of data and hence we are also presenting a set of dummy tables, illustrating information we assume will be available from a number of the NORAD partner countries. Hence these tables are already a compromise between the ideal data for this type of monitoring and which data, based upon our experience, are likely to be available at the national level with some efforts to establish proper routines for data capture and presentation.

### **5.2. Review of data being available at the international level**

The general impression of data being available at the global level is one of information confusion; the four main characteristics are as follows:

- If looking for specific data you might not find exactly the preferred indicator for the last year, but some closely related ones with some time lag.
- Data tend to come from a number of different sector sources.
- Published statistical data might or might not be adjusted.
- Studies of time series indicates that a single indicator for a single country shows reasonable changes over time, while comparison of related indicators or neighbor countries indicate that the consistency across indicators and countries might vary considerably.

The typical information status can therefore be summarized as follows:

- Descriptive data are usually available
- Comparisons over time within a country requires quite some work but will usually yield proper information
- Comparisons across countries requires caution, comparing trend data is the best option
- Combining data from two or more sectors might yield interesting findings but requires a special consideration.

The lack of consistent data collection from sector to sector and country to country makes it difficult to sort out real impact. Some preliminary findings are as follows:

- Social sector service, social sector use and social sector outcome are all, in general, improving over time.

- There is a tendency to find the expected impact, but the main impression is rather one of lack of a clear impact.

### 5.2.1. Conclusion

Global data might give us a general idea about the impact chain, but in order to understand the impact a tabulation report at the country level is required.

## 5.3. Illustrative tables and graphs

At this stage tables and graphs are included to demonstrate two issues:

- First, what kind of data which is available at the international level, through publications from international agencies and/ or through the World Wide Web.
- Second, how these data might be presented in tables, graphs and statistical measures.

Data are presented both across countries (NORAD partner-countries in 2001 + Norway), over time, and even as dummy tables (empty tables) showing that data are not available at the international level with the clear expectation that these data will be available at the national level. At this stage only national level data are presented, leaving data for the geographical and socio-economic distribution to the country level work.

Tables, graphs and statistical parameters are presented in three paragraphs:

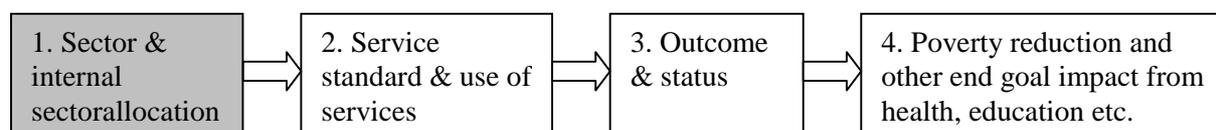
- First, tables and graph presenting data for each of the four levels from resource allocation, through access to/ use of services and outcome to end goals.
- Second, tables and graphs presenting the relationship between two levels by presentation of two parallel graphs in one diagram.
- Third, some examples of other presentations by graphs and statistical parameters of the relationship between two levels.

The last paragraph is designed mainly for a discussion among statisticians at the country level. In order to identify the advantages and drawbacks of the different approaches, some experience from design of tables and graphs would be an advantage.

The choice of a standard form of presentation in the second paragraph is far from straight forward. In fact, WHO is currently supporting a project just to work on the presentation of just one relationship, between GDP and child mortality across the countries in the world and over time (Rosling 2001).

## 5.4. The monitoring steps for the health sector

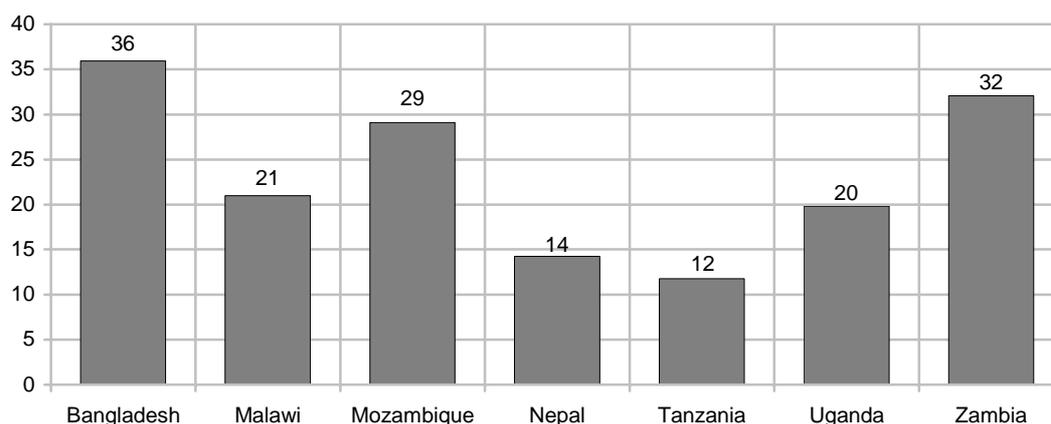
### 5.4.1. Sector & internal sector allocation



For the first monitoring step we are presenting two indicators, as follows:

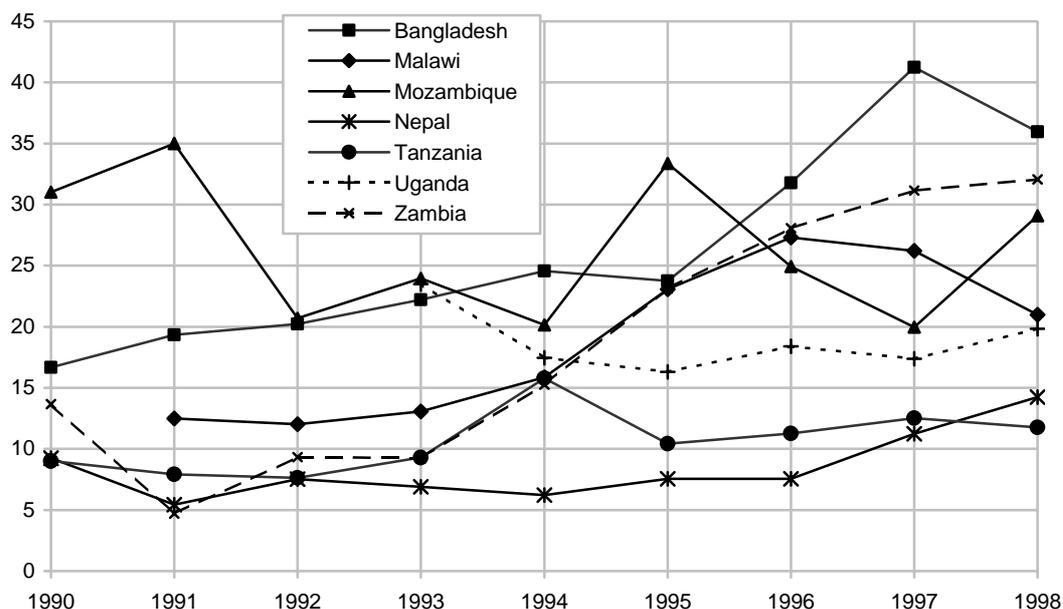
- Public health expenditures as per cent of government consumption expenditures. This indicator shows the commitment of the government to the health sector. There is unfortunately the problem that public health expenditures includes donor contribution while government consumption expenditures does not. Hence you should expect quite high levels for these percentages.
- Health expenditure per capita in PPP\$. The previous indicator does not show the resources allocated and hence is not well designed for comparisons with the output. For that purpose you need an indicator of real resources, such as this one. It is an indicator of real resource allocation and tells you what to expect of output.

**Figure 5.1. Health expenditure, public as % of government consumption expenditure<sup>13</sup>**



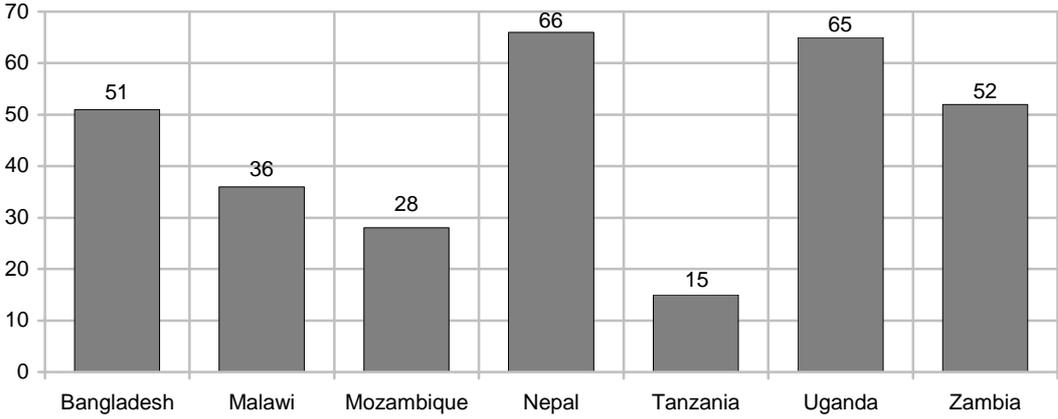
**Figure 5.2. Health expenditure, public, % of government consumption expenditure**

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Bangladesh	17	19	20	22	25	24	32	41	36
Malawi	..	12	..	13	16	23	27	26	21
Mozambique	31	35	21	24	20	33	25	20	29
Nepal	9	5	8	7	6	8	8	11	14
Tanzania	9	8	8	9	16	10	11	13	12
Uganda	..	..	..	23	17	16	18	17	20
Zambia	14	5	9	9	15	23	28	31	32



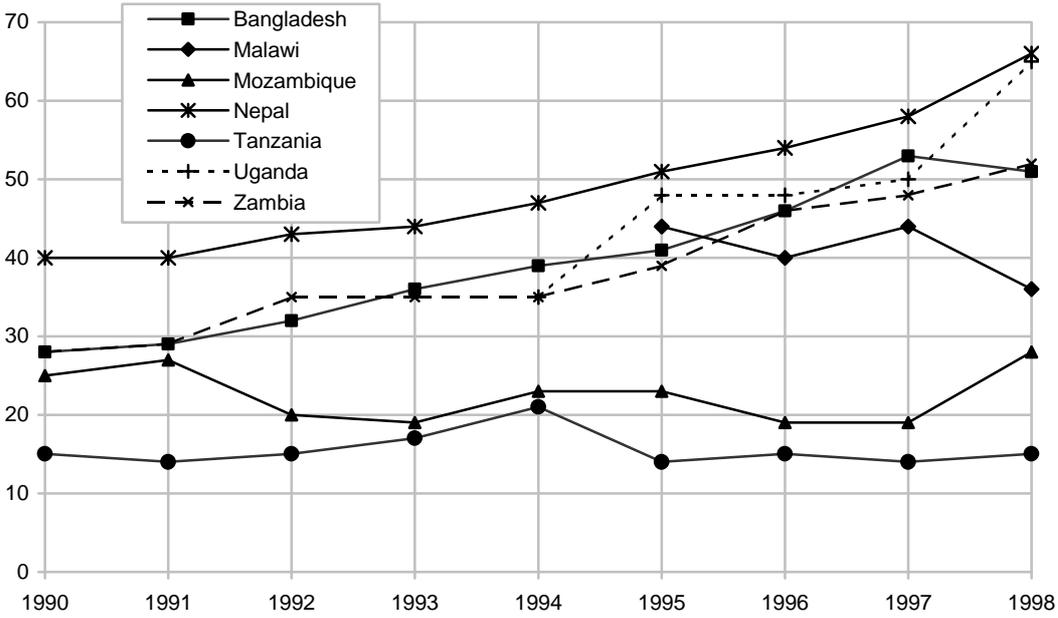
<sup>13</sup> The data source for this and all the following tables and graphs in this chapter are three, two CD-Roms and one report. The general data source is World Development Indicators 2001 (World Bank 2001a). The data we are presenting are compiled by FAO, IMF, UNESCO and World Bank but presented on this CD-Rom by the World Bank. Some variables are missing here, but present on World Bank Africa Database 2001 (World Bank 2001b). They are then presented only for the five Norwegian partnercountries in Africa. Poverty indicators are not well included in those two CD-Rom and hence we have used World Development Report 2001 (World Bank 2001c) for both the international indicator referring to one PPP $\alpha$  a day and for national poverty measures. It has been tempting to include data from national level sources, but in order to maximize consistency and present what is available at the international level, we have resisted that temptation.

**Figure 5.3. Health expenditure per capita, PPP (current international \$)**



**Figure 5.4. Health expenditure per capita, PPP (current international \$)**

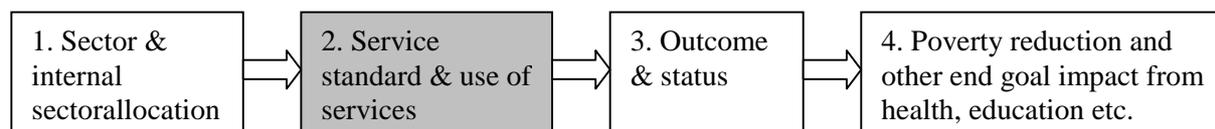
Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Bangladesh	28	29	32	36	39	41	46	53	51
Malawi	..	..	..	..	..	44	40	44	36
Mozambique	25	27	20	19	23	23	19	19	28
Nepal	40	40	43	44	47	51	54	58	66
Tanzania	15	14	15	17	21	14	15	14	15
Uganda	..	..	..	..	35	48	48	50	65
Zambia	28	29	35	35	35	39	46	48	52



As expected the percentage indicators are quite high, but still they tell that Bangladesh, Zambia and Mozambique show a special commitment to the health sector. However for all countries including Bangladesh, there is a volatile trend with large fluctuations from year to year.

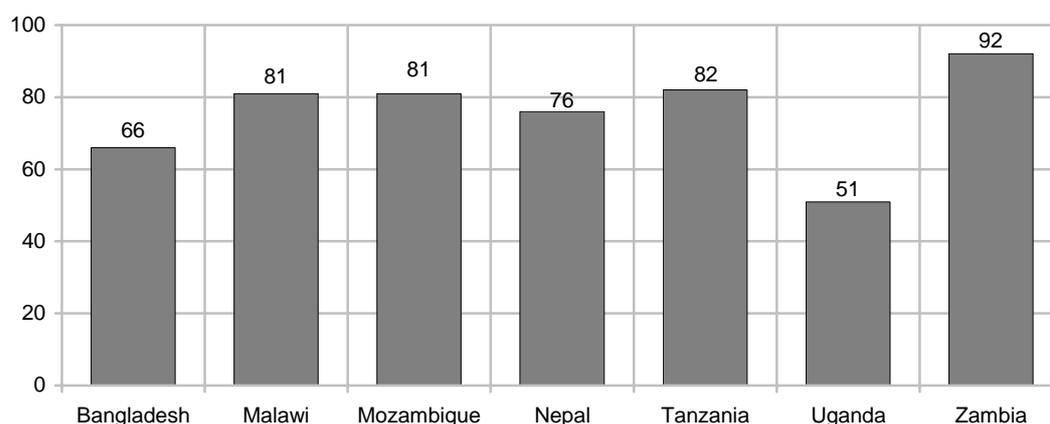
Even if the percentage ratios are high, the average health expenditure per capita is still only around 40 PPP\$. Bangladesh and Zambia are still on top, while the commitment in Mozambique does not yield a high level of real resources. It is rather Nepal and Uganda having the highest level of resources available for the health expenditure. The country trend data show that with the exception of Malawi, and Bangladesh the very last year, resources for the health sector are growing over time.

### 5.4.2. Service standard & use of services



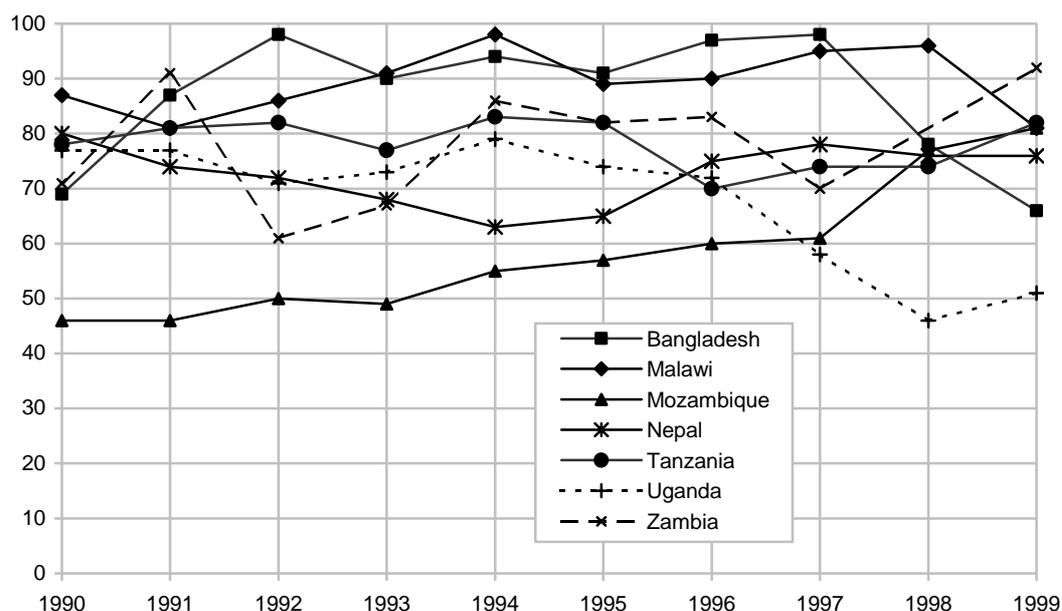
We have chosen DPT vaccination as an indicator for health service standard and use of services. Vaccination is a high priority area of preventive health and at the same time data are available on a regular basis.

**Figure 5.5. Immunization, DPT (% of children under 12 months)**



**Figure 5.6. Immunization, DPT (% of children under 12 months)**

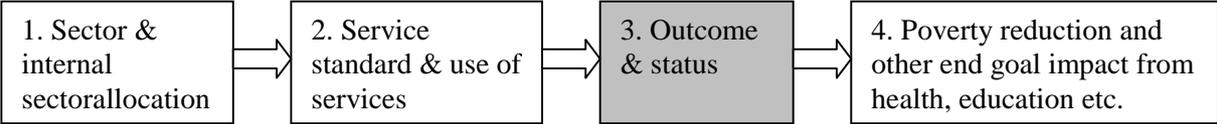
Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bangladesh	69	87	98	90	94	91	97	98	78	66
Malawi	87	81	86	91	98	89	90	95	96	81
Mozambique	46	46	50	49	55	57	60	61	77	81
Nepal	80	74	72	68	63	65	75	78	76	76
Tanzania	78	81	82	77	83	82	70	74	74	82
Uganda	77	77	71	73	79	74	72	58	46	51
Zambia	71	91	61	67	86	82	83	70	..	92



The immunization coverage turns out to be quite good with an exception for Uganda and to a certain degree Bangladesh. The trend data shows that it is really during the very last years the situation has deteriorated. Malawi shows the same trend but the level is still quite high. It is reasonable to expect that the large reduction in vaccination coverage over the last years it due to a termination of campaign and special support.

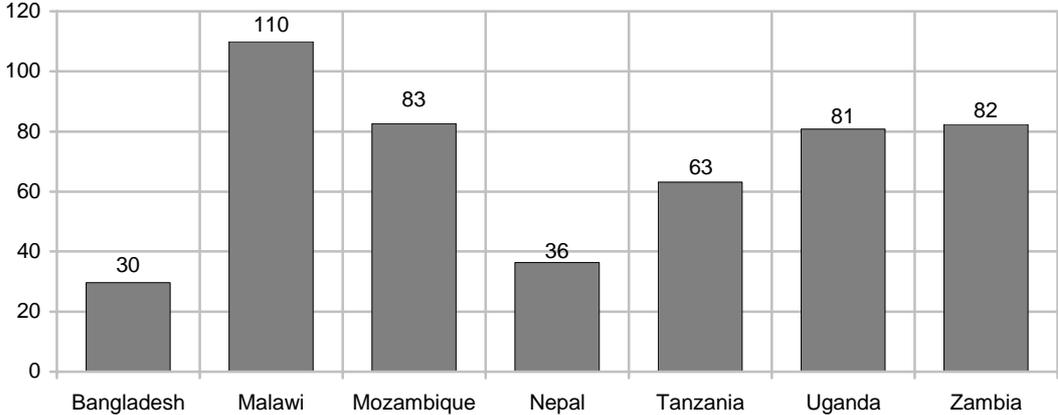
The figures indicate that vaccinations are given a high priority even if the overall service provision is not high. Hence this is hardly the best indicator for the overall service provision, but since vaccinations are that important it is still interesting for a large share of the health sector.

**5.4.3. Sector outcome and status**



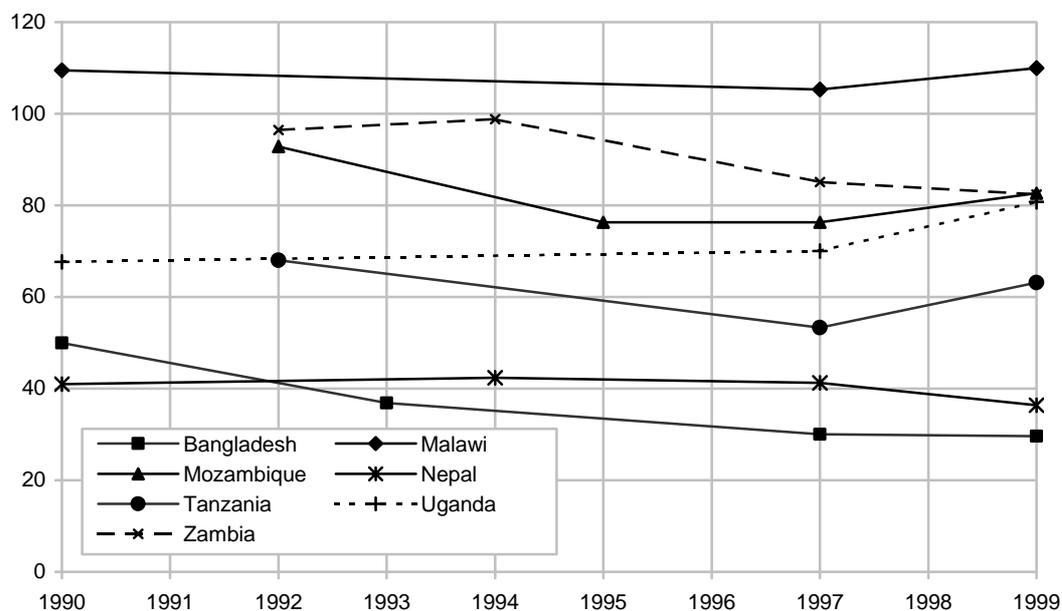
We have chosen to present mortality as the indicator for outcome and sector status. With an aim to follow the effects of resources we have focused upon mortality for children excluding the infants, i.e. the two to five year old children.

**Figure 5.7. Mortality rate, 2-5 (per 1,000 2-years)**



**Figure 5.8. Mortality rate, 2-5 (per 1,000 2-years)**

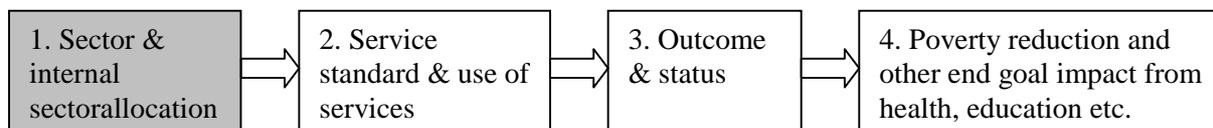
Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bangladesh	50	..	..	37	..	..	..	30	..	30
Malawi	109	..	..	..	..	..	..	105	..	110
Mozambique	..	..	93	..	..	76	..	76	..	83
Nepal	41	..	..	..	42	..	..	41	..	36
Tanzania	..	..	68	..	..	..	..	53	..	63
Uganda	68	..	..	..	..	..	..	70	..	81
Zambia	..	..	96	..	99	..	..	85	..	82



Mortality rates for children vary considerably between the Asian and the African countries listed. In almost all countries, there is a steady decline from 1990 to 1997. This reduction continues for Bangladesh and Nepal while for most of the African countries it has halted or reversed from 1997 to 1999. An obvious hypothesis is that this reflects the impact of HIV/Aids.

## 5.5. The monitoring steps for the education sector

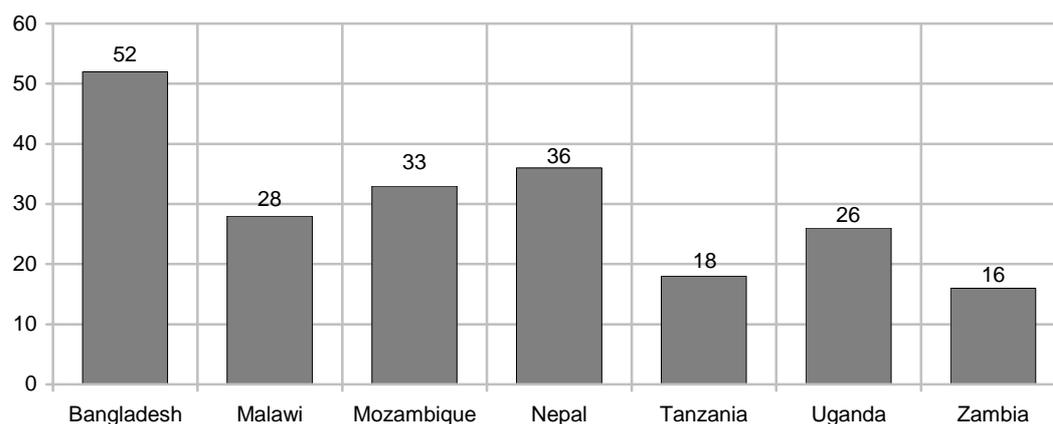
### 5.5.1. Sector & internal sector allocation



As for the health sector we are presenting two indicators, as follows:

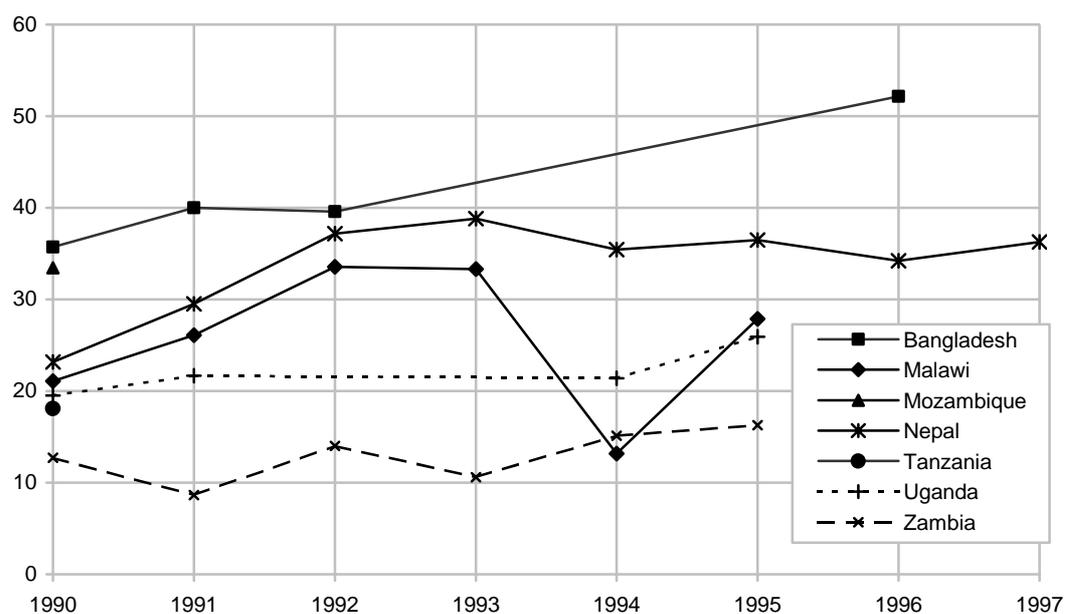
- Public education expenditures as per cent of government consumption expenditures. This indicator shows the commitment of government. There is unfortunately the problem that public education expenditures include donor contribution while government consumption expenditures do not. Hence you should expect quite high levels for these percentages.
- Education expenditure per capita in PPP\$. The previous indicator does not show the resources allocated and hence is not well designed for comparisons with the output. For that purpose you need an indicator of real resources, such as this one. It is an indicator of real resource allocation and tells you what to expect of output.

**Figure 5.9. Education expenditures, public % of government consumption expenditures**

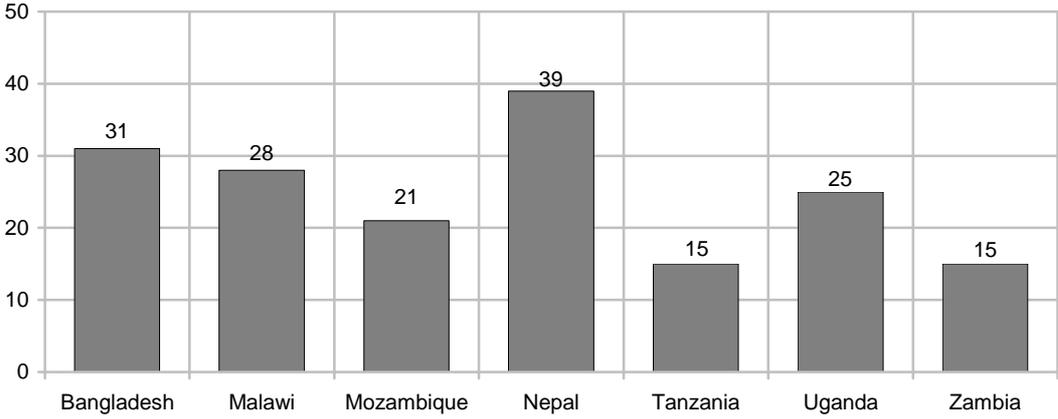


**Figure 5.10. Education expenditure, public, % of government consumption expenditure**

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Bangladesh	36	40	40	..	..	..	52	..	..
Malawi	21	26	34	33	13	28	..	..	..
Mozambique	33	..	..	..	..	..	..	..	..
Nepal	23	30	37	39	35	36	34	36	..
Tanzania	18	..	..	..	..	..	..	..	..
Uganda	19	22	..	..	21	26	..	..	..
Zambia	13	9	14	11	15	16	..	..	..

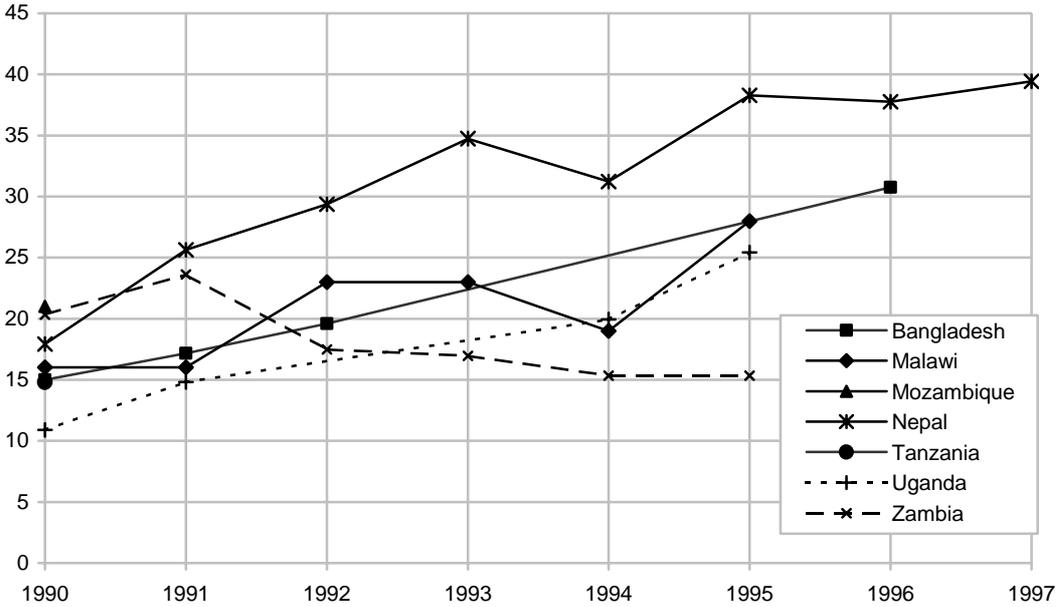


**Figure 5.11. Education expenditure per capita, PPP (current international \$)**



**Figure 5.12. Education expenditure per capita, PPP (current international \$)**

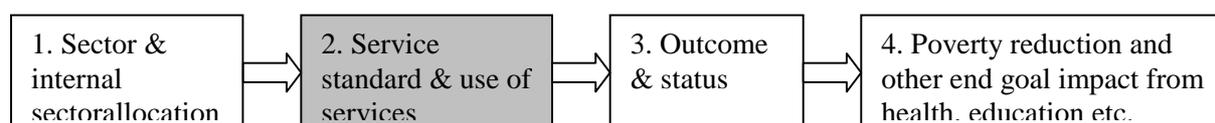
Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bangladesh	15	17	20	..	..	..	31	..	..	..
Malawi	16	16	23	23	19	28	..	..	..	..
Mozambique	21	..	..	..	..	..	..	..	..	..
Nepal	18	26	29	35	31	38	38	39	..	..
Tanzania	15	..	..	..	..	..	..	..	..	..
Uganda	11	15	..	..	20	25	..	..	..	..
Zambia	20	24	17	17	15	15	..	..	..	..



For the education sector the Asian countries are topping the list of government commitments for social sector resource allocation. Zambia is the only clear example of substantially lower commitments for education than for health. Tanzania is at the bottom for both sectors. With the exception of Malawi, the general trend is a slow but not too steady increase in public expenditures. And even for Malawi the only exemption is 1994, just the year when the new government was elected.

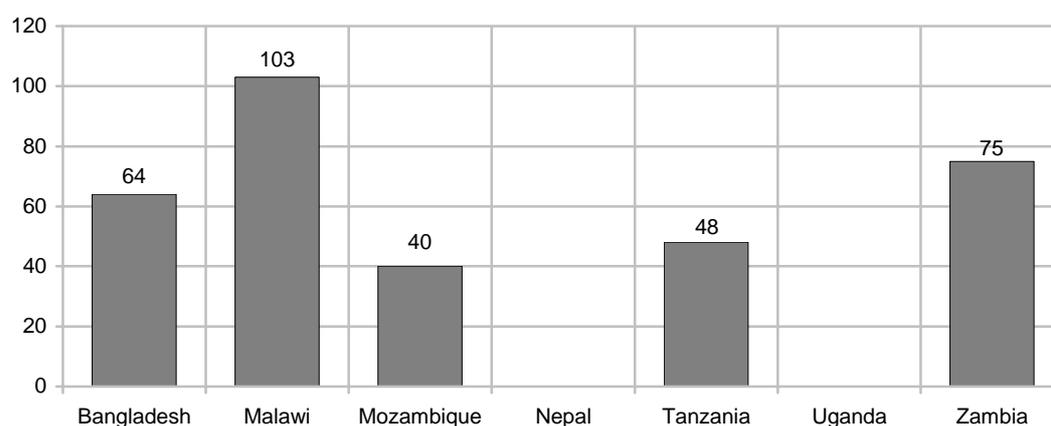
If we focus on resource allocation measured in PPP\$ Asian countries are again at top, but only Tanzania and Zambia have a real low allocation. The trend data show a steady increase in all countries except Zambia.

### 5.5.2. Service standard & use of services



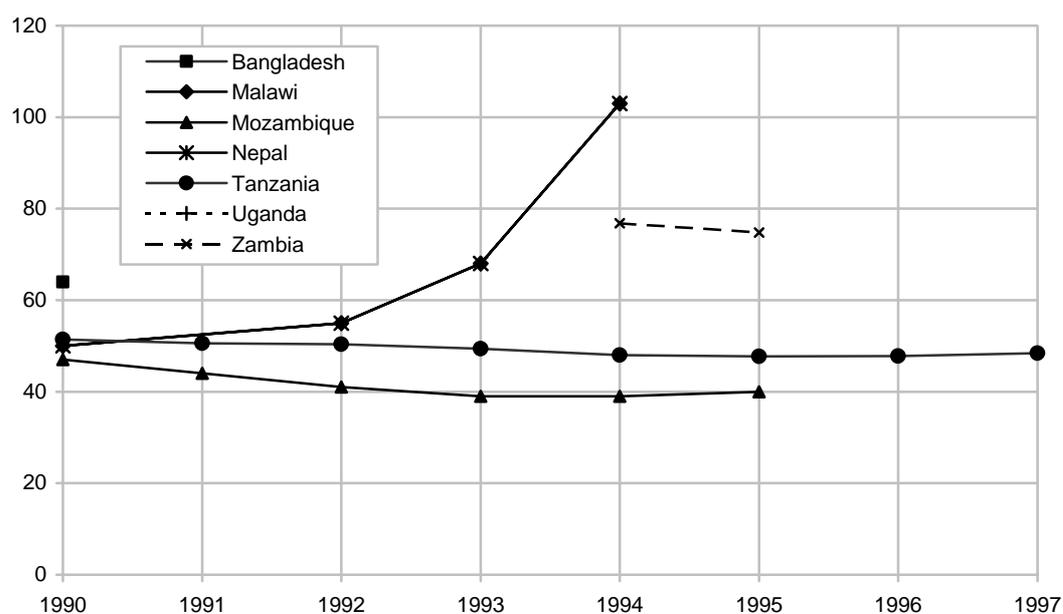
For the education sector, school enrollment is not only an indicator but the most important part of service provision in education. Hence we have chosen net enrollment as the indicator even if there are quite some data gaps<sup>14</sup>.

**Figure 5.13. School enrollment, primary (% net)**



**Figure 5.14. School enrollment, primary (% net)**

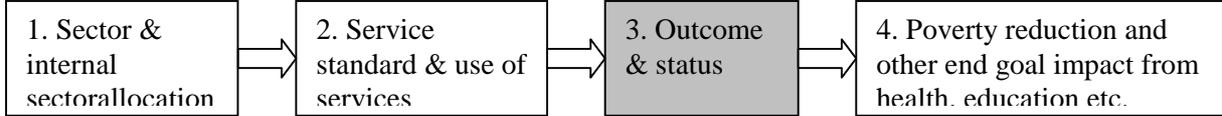
Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bangladesh	64	..	..	..	..	..	..	..	..	..
Malawi	50	..	55	68	103	..	..	..	..	..
Mozambique	47	44	41	39	39	40	..	..	..	..
Nepal	50	..	55	68	103	..	..	..	..	..
Tanzania	51	51	50	49	48	48	48	48	..	..
Uganda	..	..	..	..	..	..	..	..	..	..
Zambia	..	..	..	..	77	75	..	..	..	..



<sup>14</sup> Net enrollment tells the proportion of children at school age really enrolled in school and varies by definition from 0 to 100 per cent, but since some pupils will hide their real age, children of over-age might well be included. This might press the indicator above 100, clearly an indicator of low quality.

Net enrollment varies from 40 to 64 for Bangladesh, Tanzania and Mozambique, but is up to 75 in Zambia and 103 in Malawi. While the Malawi indicator by definition is too high, one might question the Zambia indicator since the resource allocation in Zambia was quite low. Only Mozambique and Tanzania have proper trend data and they show hardly no improvement during the 1990s.

5.5.3. Sector outcome and status



The main impact of school enrollment is a long term reduction in illiteracy. Hence we have chosen that as the overall indicator.

Figure 5.15. Illiteracy rate, youth total (% of people ages 15-24)

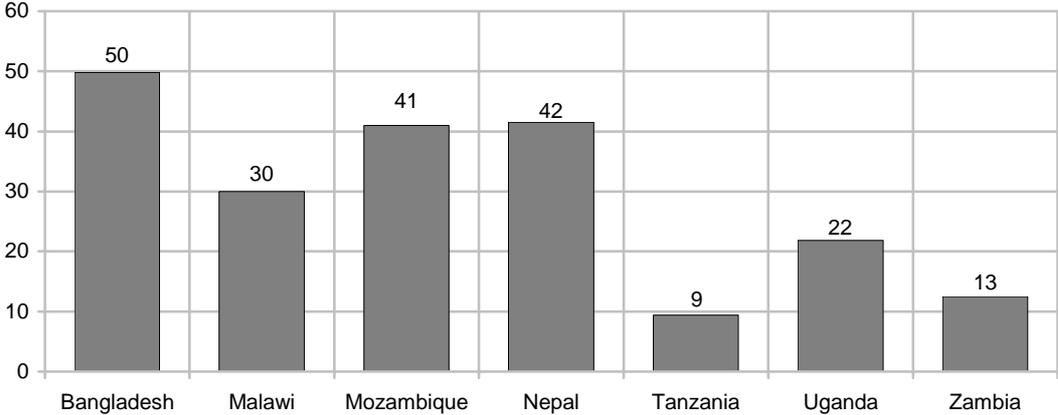
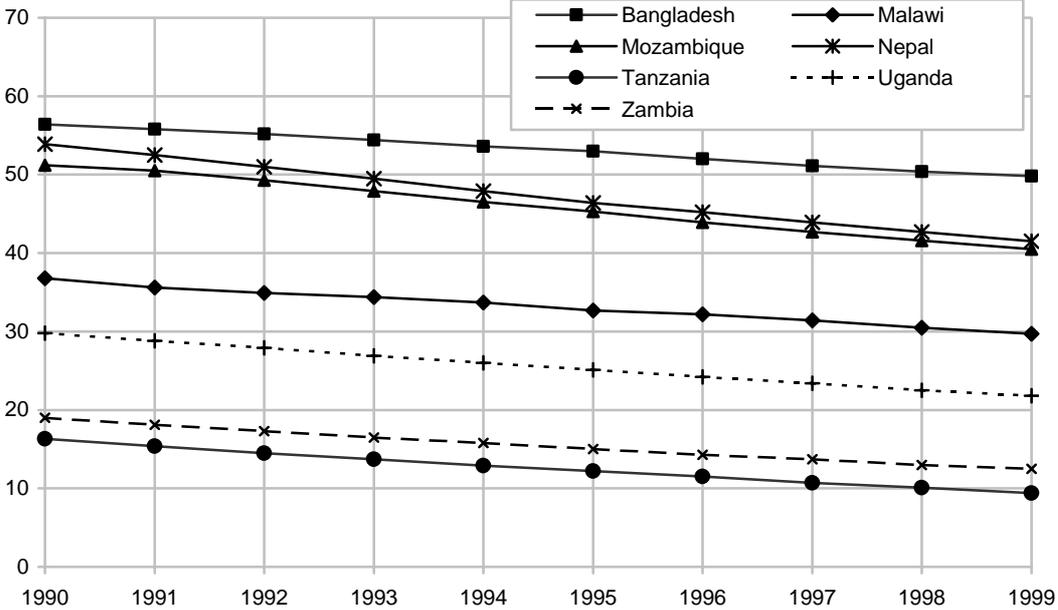


Figure 5.16. Illiteracy rate, youth total (% of people ages 15-24)

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bangladesh	56	56	55	54	54	53	52	51	50	50
Malawi	37	36	35	34	34	33	32	31	31	30
Mozambique	51	51	49	48	47	45	44	43	42	41
Nepal	54	53	51	50	48	46	45	44	43	42
Tanzania	16	15	15	14	13	12	12	11	10	9
Uganda	30	29	28	27	26	25	24	23	23	22
Zambia	19	18	17	17	16	15	14	14	13	13

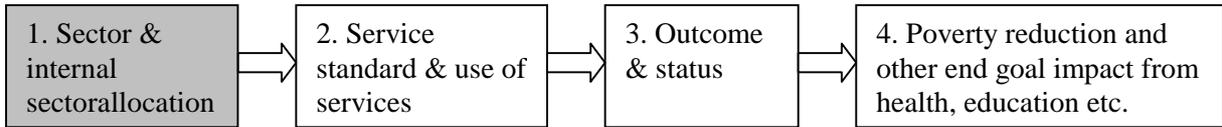


Given the long term time horizon one can not expect the same levels or ranks for school enrollment and illiteracy. But still it is remarkable that the Asian countries have the highest resource allocation and school enrollment but still the highest illiteracy among the 15-24 years old young men and women.

For all countries there is a steady decline during the 1990s. In fact the slowest reduction is for Bangladesh with the highest resource allocation and a fair enrollment. These data does not show how African countries can succeed pretty well in lowering illiteracy but one hypothesis is that quite a number enroll in school long enough for the basic literacy but not long enough to keep up enrollment rates. One might also raise a hypothesis that Asian countries do not do enough to eradicate illiteracy among girls.

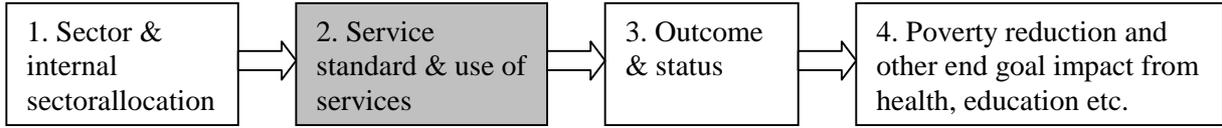
**5.6. The monitoring steps for the water and sanitation sector**

**5.6.1. Sector & internal sector allocation**



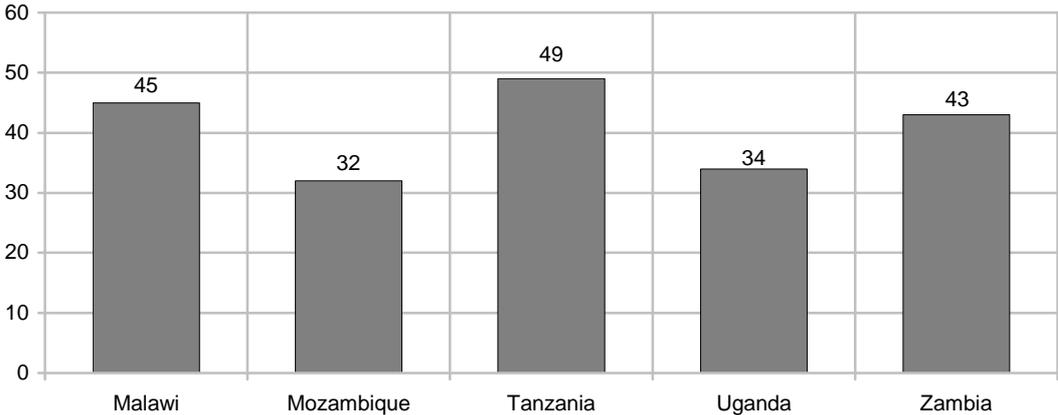
Data are not available.

**5.6.2. Service standard & use of services**

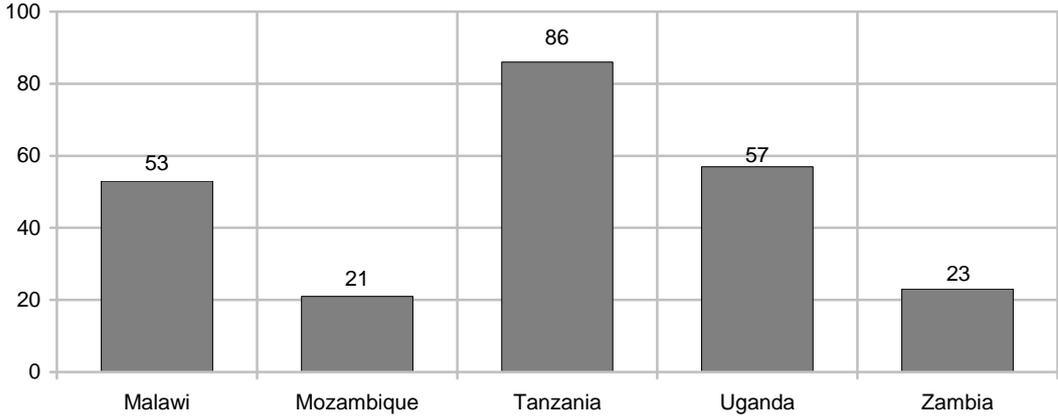


Data on water and sanitation are only available for Africa and the gaps are so large that trends can not be presented.

**Figure 5.17. Percentage of population with access to safe water**

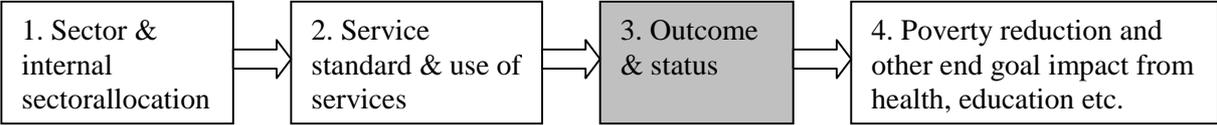


**Figure 5.18. Percentage of population with access to sanitation**



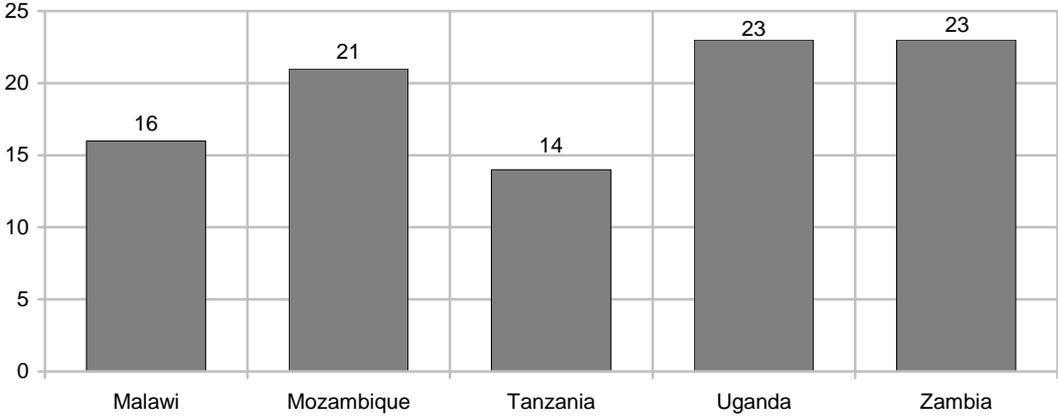
The graphs show that Tanzania is in front for ensuring safe water and sanitation. Malawi also does well for both water and sanitation. Zambia has ensured safe water but not sanitation for around half the population, while Uganda relatively speaking has given more emphasis to sanitation.

**5.6.3. Sector outcome and status**



For the water and sanitation service we expect the main outcome in the health sector as improved health and especially by avoiding diarrhoea.

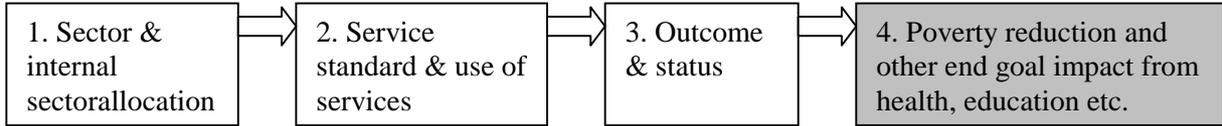
**Figure 5.19. Diarrhoea disease incidence**



The levels of diarrhoea are distributed in the same pattern as safe water and sanitation. Tanzania has the lowest level followed by Malawi.

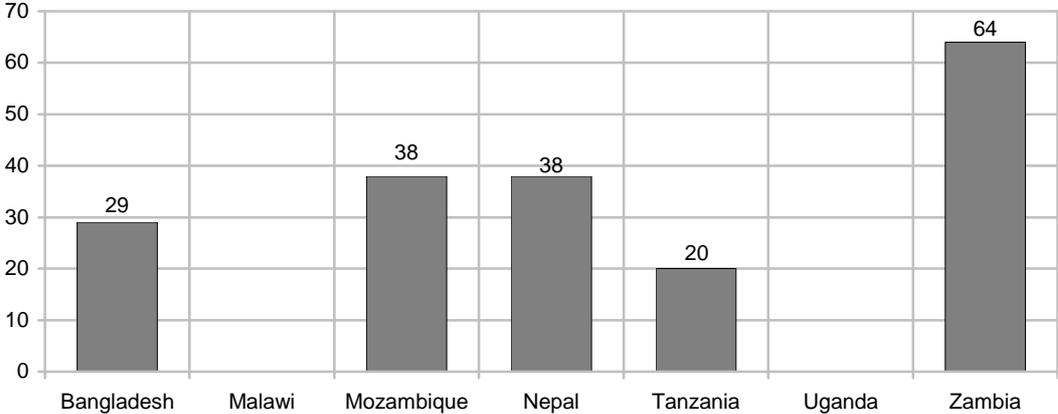
### 5.7. The final monitoring step, end goals, human welfare and poverty reduction

The previous paragraphs have shown that these seven countries give different priority across these sectors. For each sector some countries give priority to resource allocation and seem to gain better output and outcome. Before we embark on presenting statistics for two and two steps jointly we address the common goals, measured by the poverty indicators.



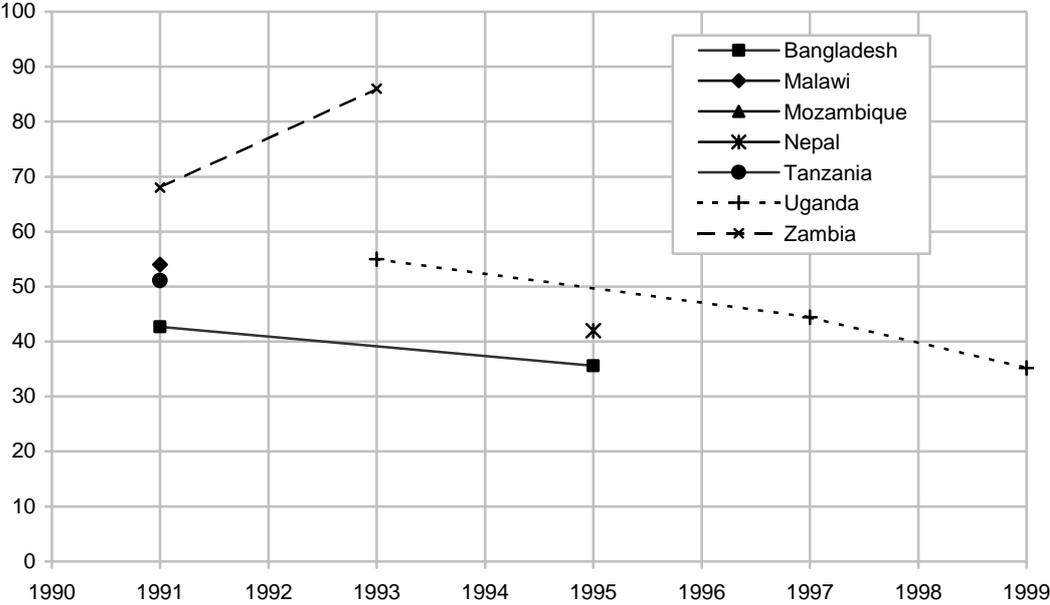
For this presentation we have selected a standardized poverty indicator i.e. one PPP \$ per person per day. For national trends, we have chosen national poverty lines, since more data are available.

Figure 5.20. Extreme poverty incidence (% under one \$ a day)



**Figure 5.21. National poverty incidence (% under national poverty line)**

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bangladesh	..	43	..	..	..	36	..	..	..	..
Malawi	..	54	..	..	..	..	..	..	..	..
Mozambique	..	..	..	..	..	..	..	..	..	..
Nepal	..	..	..	..	..	42	..	..	..	..
Tanzania	..	51	..	..	..	..	..	..	..	..
Uganda	..	..	..	55	..	..	..	44	..	35
Zambia	..	68	..	86	..	..	..	..	..	..



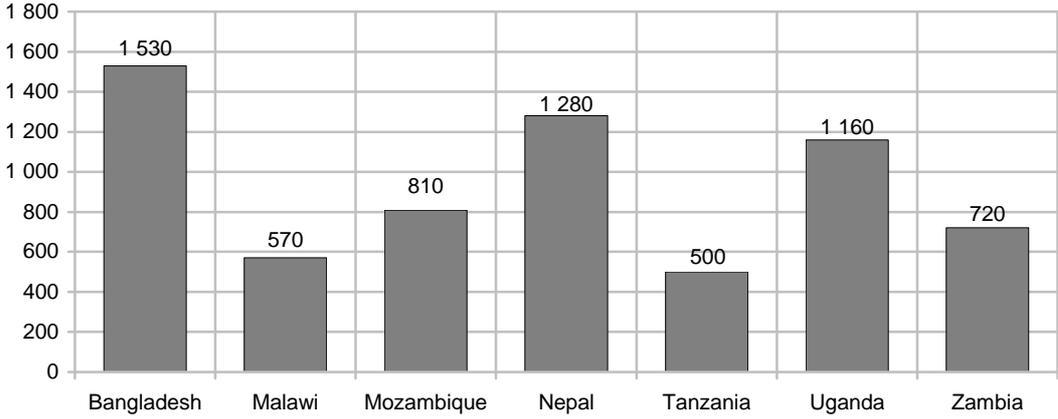
These countries are all struggling with high poverty levels. Bangladesh and Tanzania are doing quite OK with levels below 30 per cent. Mozambique, Nepal and Uganda are all around 40 per cent. For these six countries we only have trend data for Bangladesh and Uganda and they both show reduction. Zambia is a different case. They are facing the highest poverty rates and the available poverty data show no reduction, but for some reason data after 1993 are only presented for the international poverty line and does not allow for any trend information.

**5.7.1. Economic level as a feed back from end goals**

Economic level as such is not among the measures to be presented. But in order to follow the feed back on human development, we have chosen gross national income (which has replaced the net national product as the measures for goods and services being available for consumption and investments in a country) as an indicator.

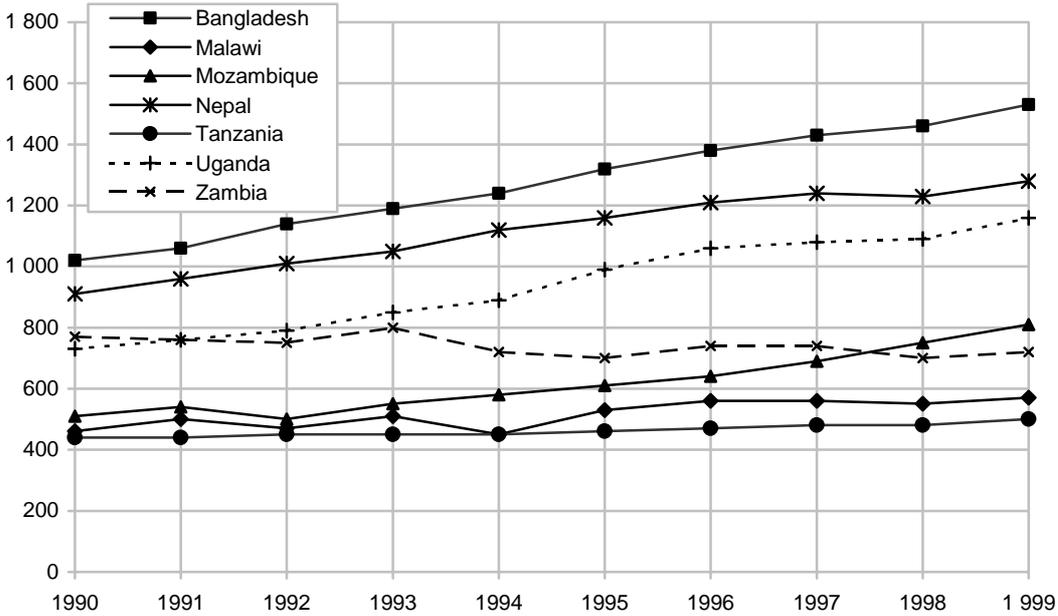
Since we focus on human welfare, we have chosen to present GNI measured in PPP\$ reflecting the purchasing power and hence potential consumption rather than following the exchange rate which would reflect the investor potential.

**Figure 5.22. GNI per capita, PPP (current international \$)**



**Figure 5.23. GNI per capita, PPP (current international \$)**

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Bangladesh	1 020	1 060	1 140	1 190	1 240	1 320	1 380	1 430	1 460	1 530
Malawi	460	500	470	510	450	530	560	560	550	570
Mozambique	510	540	500	550	580	610	640	690	750	810
Nepal	910	960	1 010	1 050	1 120	1 160	1 210	1 240	1 230	1 280
Tanzania	440	440	450	450	450	460	470	480	480	500
Uganda	730	760	790	850	890	990	1 060	1 080	1 090	1 160
Zambia	770	760	750	800	720	700	740	740	700	720

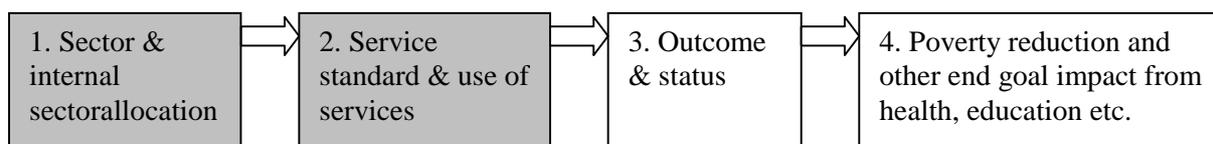


GNI per capita shows that the Asian and African countries are in two different economic leagues and that Uganda is climbing the ladder towards that league.

It also shows that all countries with the exception of Zambia are steady improving their situation. Zambia, which was at the level of Uganda, did not manage to take off, and has in fact even reduced the level of GNI per capita in the 1990s.

## 5.8. Statistical relationships between steps for the health sector.

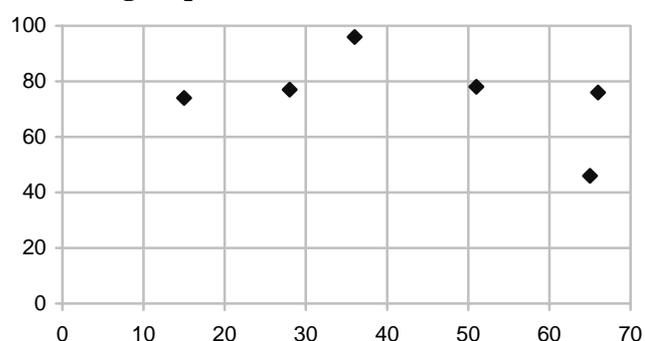
### 5.8.1. Statistical relationship between resource allocation and service standard



The first step is from inputs to service standard and use. We would definitely expect a close relationship between total health expenditures per capita and the services being delivered. However, in this case we have only included one indicator of service standard, addressing vaccination coverage. Since each country might give different priority to vaccination you would expect to find large variation across countries. You would expect clearer trends over time in one given country. But you should of course be aware of vaccination campaigns etc. which might give quite large amplitudes in trend data.

**Figure 5.24. Inputs - outputs in health sector for Norwegian partner countries**

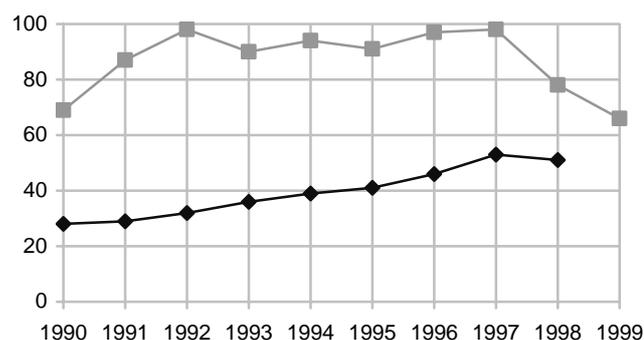
	Country	EXP	IMM
	Banglad.	51	78
EXP - Health expenditure per capita, current international PPP\$, 1998 & IMM - Immunization 1998, DPT under 12 months Latest	Malawi	36	96
	Mozamb.	28	77
	Nepal	66	76
	Tanzania	15	74
	Uganda	65	46
	Zambia	52	..



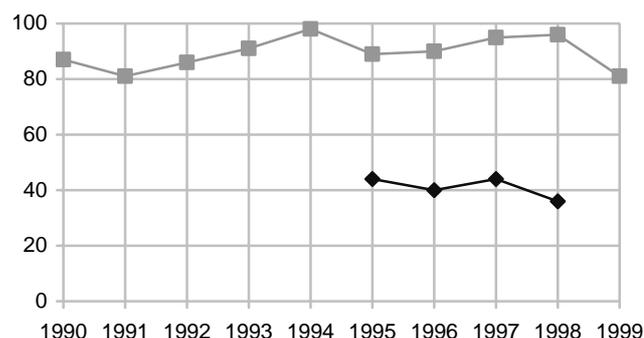
In the Norwegian partnercountries there is quite a high DPT vaccination coverage in all but one country and an exceptionally large coverage in another. There is no overall close relationship between health expenditures and vaccination.

**Figure 5.25. Inputs - outputs in health sector for each Norwegian partner country**

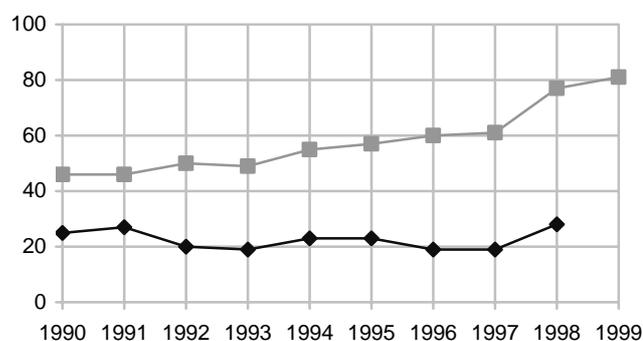
a. Bangladesh			
	Year	EXP	IMM
	1990	28	69
	1991	29	87
	1992	32	98
	1993	36	90
	1994	39	94
	1995	41	91
	1996	46	97
	1997	53	98
	1998	51	78
	1999	..	66



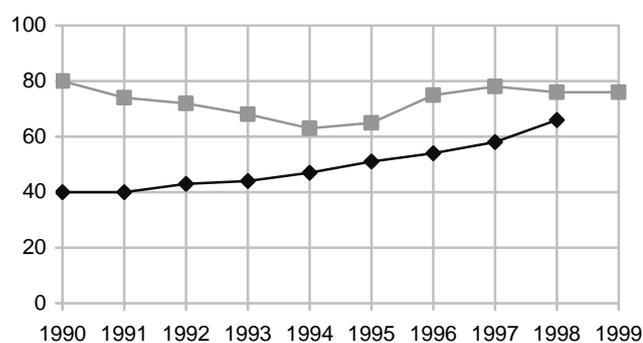
b. Malawi			
	Year	EXP	IMM
	1990	..	87
	1991	..	81
	1992	..	86
	1993	..	91
	1994	..	98
	1995	44	89
	1996	40	90
	1997	44	95
	1998	36	96
	1999	..	81



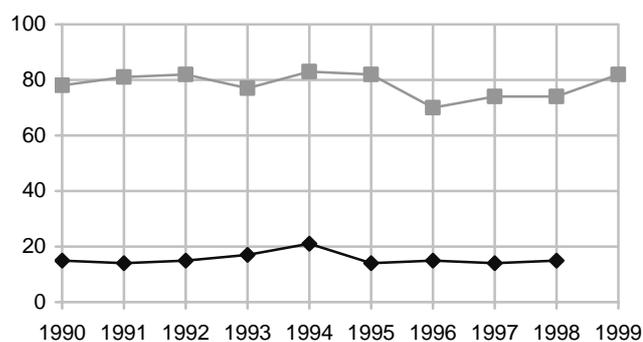
<b>c. Mozambique</b>	Year	EXP	IMM
	1990	25	46
	1991	27	46
	1992	20	50
	1993	19	49
EXP - Health	1994	23	55
expenditure per capita,	1995	23	57
PPP (current internat.	1996	19	60
\$) & IMM -	1997	19	61
Immunization, DPT (% of	1998	28	77
children under 12	1999	..	81
months)			



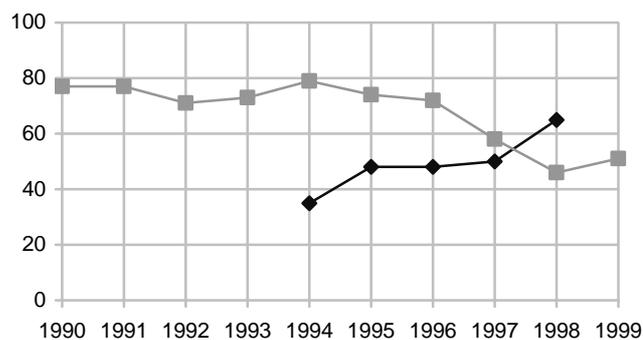
<b>d. Nepal</b>	Year	EXP	IMM
	1990	40	80
	1991	40	74
	1992	43	72
	1993	44	68
EXP - Health	1994	47	63
expenditure per capita,	1995	51	65
PPP (current	1996	54	75
international \$) and	1997	58	78
IMM - Immunization,	1998	66	76
DPT (% of children	1999	..	76
under 12 months)			



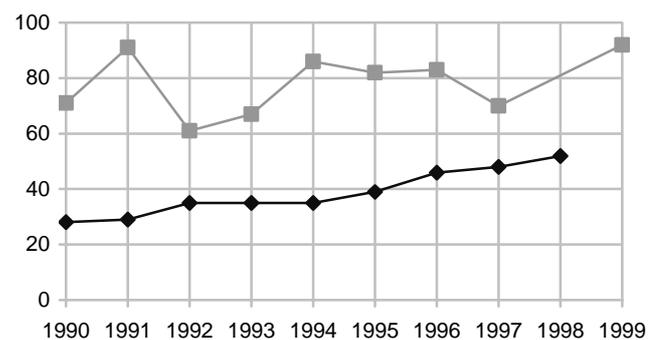
<b>e. Tanzania</b>	Year	EXP	IMM
	1990	15	78
	1991	14	81
	1992	15	82
	1993	17	77
EXP - Health	1994	21	83
expenditure per capita,	1995	14	82
PPP (current	1996	15	70
international \$) & IMM -	1997	14	74
Immunization, DPT (% of	1998	15	74
children under 12	1999	..	82
months)			



<b>f. Uganda</b>	Year	EXP	IMM
	1990	..	77
	1991	..	77
	1992	..	71
	1993	..	73
EXP - Health	1994	35	79
expenditure per capita,	1995	48	74
PPP (current	1996	48	72
international \$) and	1997	50	58
IMM - Immunization,	1998	65	46
DPT (% of children	1999	..	51
under 12 months)			



<b>g. Zambia</b>	Year	EXP	IMM
	1990	28	71
	1991	29	91
	1992	35	61
	1993	35	67
EXP - Health	1994	35	86
expenditure per capita,	1995	39	82
PPP (current	1996	46	83
international \$) and	1997	48	70
IMM - Immunization,	1998	52	..
DPT (% of children	1999	..	92
under 12 months)			

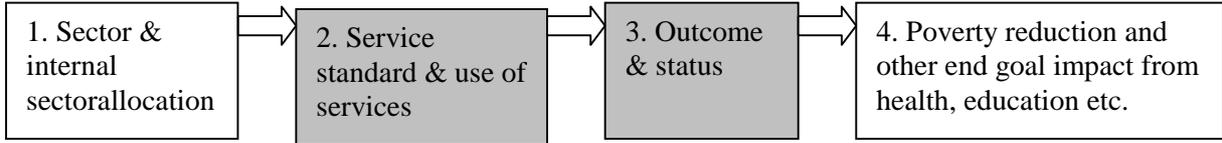


At country level you find in general the expected relationship between health sector expenditures and immunization coverage in Bangladesh, Malawi, Mozambique and Nepal, no clear relationship in Zambia and almost a reverse relationship in Uganda. This is a clear indication of the potential of monitoring at national level. In general you find the relationship you would expect at country-level. The two exceptions indicate that something special has happened and demand a further review of policy implementation. Based upon the data you would expect to find frequent changes in policy and priorities over these years and in Uganda we have learned that the sudden decrease in immunization happened when donor support was phased out.

This statistical information might guide health sector people both to learn about the real priorities and to encourage them to look what happened in Uganda and Zambia.

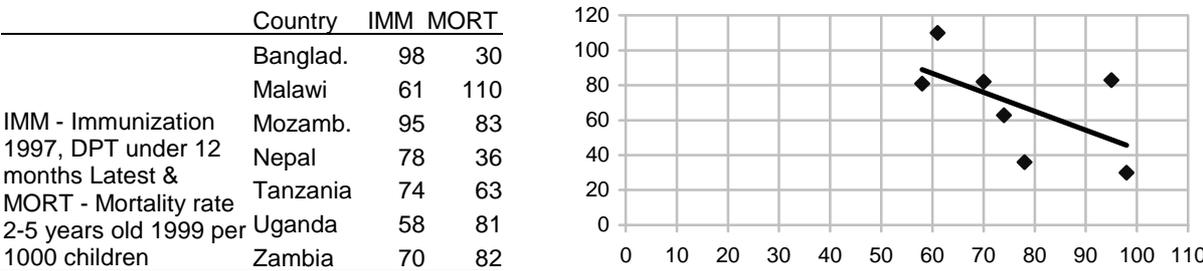
For the country level policy makers the graphs illustrate the usefulness of following the trends in not only in their own country but also in neighbor countries.

**5.8.2. Statistical relationship between service standard/ use of services and outcome/ status**



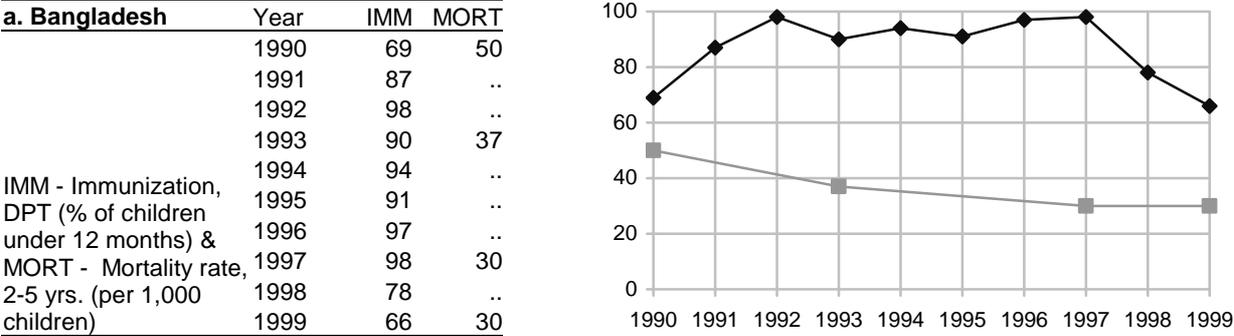
The relationship at the next step is different from first one. You would definitely expect a clear impact of vaccination coverage on child mortality, but of course other factors may be equally important. Some of these factors are natural variation caused by climatic variation in agricultural production and disease exposure such as malaria. Hence in this case you should be prepared for more random variation and weaker trends.

**Figure 5.26. Outputs - outcome in health sector for Norwegian partner countries**

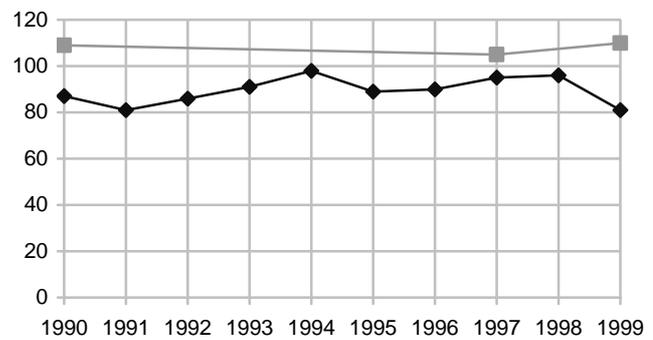


There is a clear and strong relationship between increased vaccination coverage and child mortality rates. Considering that there are still left over problems from the civil unrest and war in Mozambique (the only outlier) this is a very strong and clear relationship.

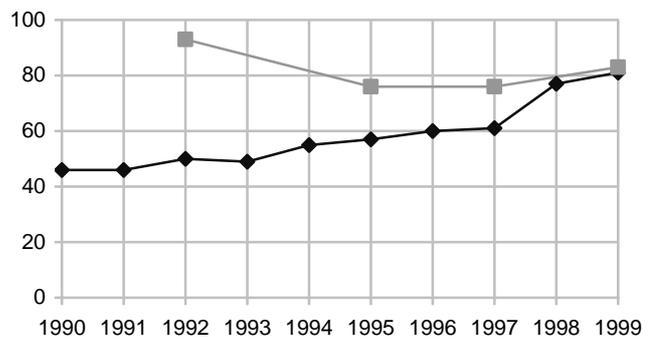
**Figure 5.27. Outputs - outcome in health sector for each Norwegian partner country**



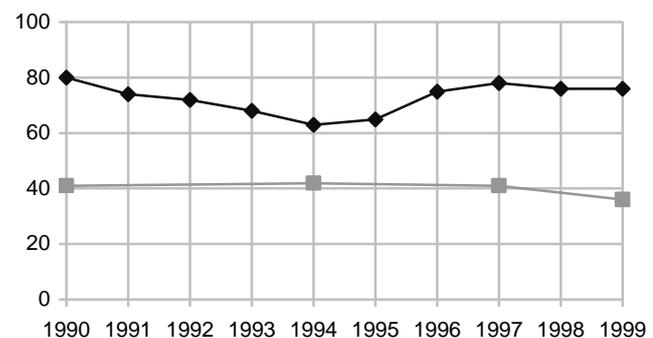
<b>b. Malawi</b>	Year	IMM	MORT
	1990	87	109
	1991	81	..
	1992	86	..
	1993	91	..
	1994	98	..
IMM - Immunization, DPT (% of children under 12 months) &	1995	89	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1996	90	..
	1997	95	105
	1998	96	..
	1999	81	110



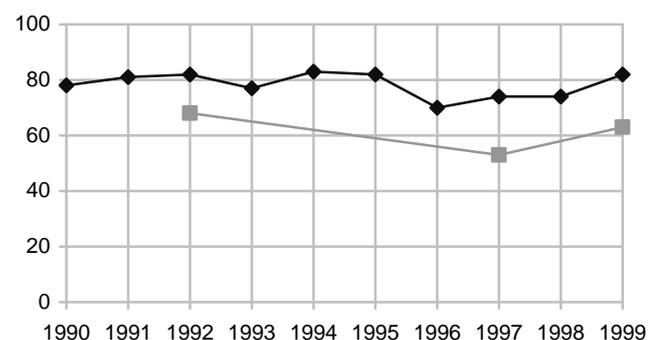
<b>c. Mozambique</b>	Year	IMM	MORT
	1990	46	..
	1991	46	..
	1992	50	93
	1993	49	..
	1994	55	..
IMM - Immunization, DPT (% of children under 12 months) &	1995	57	76
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1996	60	..
	1997	61	76
	1998	77	..
	1999	81	83



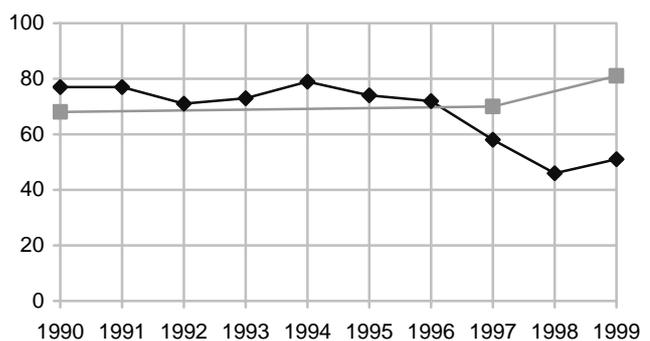
<b>d. Nepal</b>	Year	IMM	MORT
	1990	80	41
	1991	74	..
	1992	72	..
	1993	68	..
	1994	63	42
IMM - Immunization, DPT (% of children under 12 months) &	1995	65	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1996	75	..
	1997	78	41
	1998	76	..
	1999	76	36



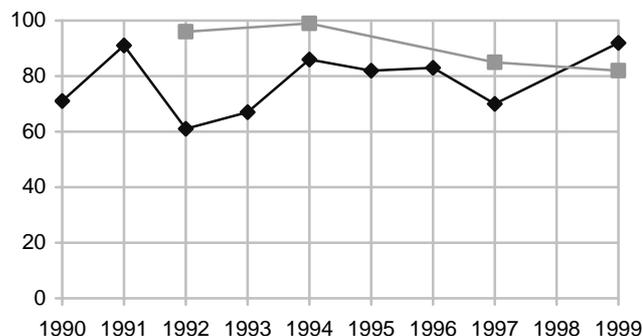
<b>e. Tanzania</b>	Year	IMM	MORT
	1990	78	..
	1991	81	..
	1992	82	68
	1993	77	..
	1994	83	..
IMM - Immunization, DPT (% of children under 12 months) &	1995	82	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1996	70	..
	1997	74	53
	1998	74	..
	1999	82	63



<b>f. Uganda</b>	Year	IMM	MORT
	1990	77	68
	1991	77	..
	1992	71	..
	1993	73	..
	1994	79	..
IMM - Immunization, DPT (% of children under 12 months) &	1995	74	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1996	72	..
	1997	58	70
	1998	46	..
	1999	51	81



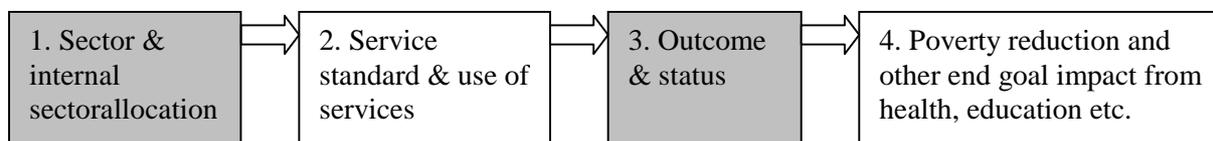
<b>g. Zambia</b>	Year	IMM	MORT
	1990	71	..
	1991	91	..
	1992	61	96
	1993	67	..
	1994	86	99
IMM - Immunization, DPT (% of children under 12 months) &	1995	82	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1996	83	..
	1997	70	85
	1998	..	..
	1999	92	82



At country level you find quite some lack of data and random variation and weaker trends dominating. The trends tend to be as expected but very weak in Bangladesh, Malawi, Nepal and Uganda, while really a mixture and almost reverse trends in Mozambique, Tanzania and Zambia.

In our opinion it is probably better to calculate rolling averages over some years to understand the trends in individual countries.

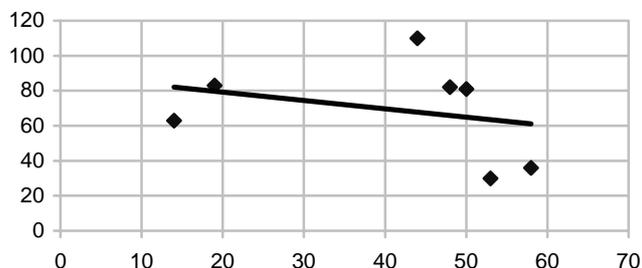
### 5.8.3. Statistical relationship between resource allocation and outcome/ health status.



We have also chosen to present the direct relationship between inputs and outcome. The justification is that the inputs might give an equally well based indication of total service availability. Hence you might expect a closer relationship especially at country level.

**Figure 5.28. Inputs - outcome in health sector for Norwegian partner countries**

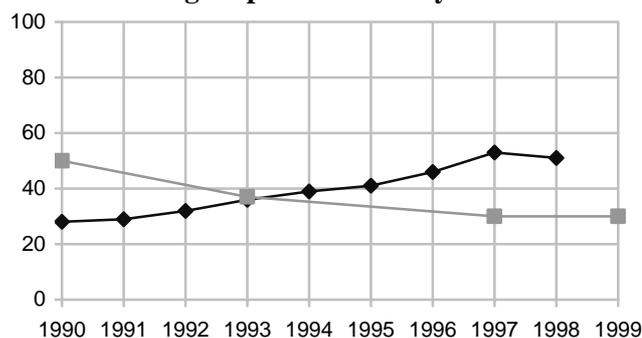
	Country	EXP	MORT
	Banglad.	53	30
EXP - Health expenditure per capita, current international \$ 1997 &	Malawi	44	110
MORT - Mortality rate 2-5 years old 1999 per 1000 children	Mozamb.	19	83
	Nepal	58	36
	Tanzania	14	63
	Uganda	50	81
	Zambia	48	82



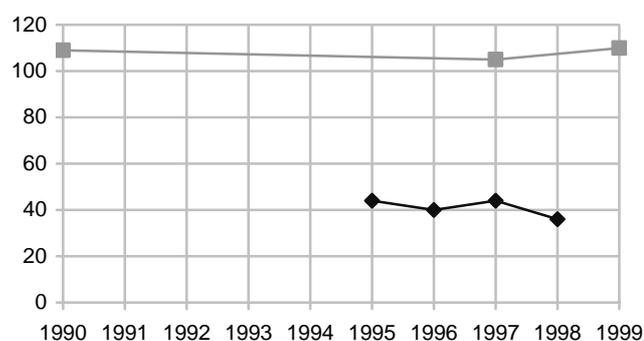
For all partner-countries as a group, the relationship is in fact weaker and not as clear. A closer look reveals a regional difference. For the two Asian countries, extra expense pays well off in reduced child mortality, while for Malawi, Zambia and Uganda either the resources are not targeting children or are quite inefficient.

**Figure 5.29. Inputs - outcome in health sector for each Norwegian partner country**

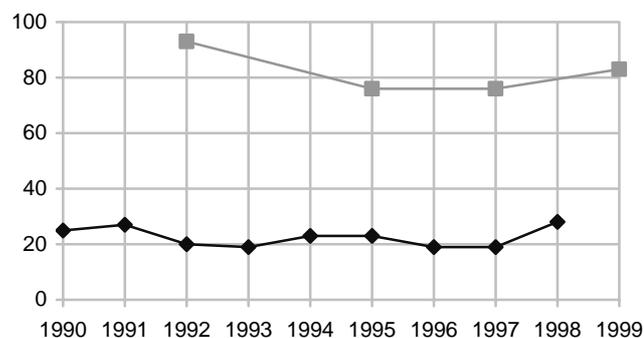
<b>a. Bangladesh</b>	Year	EXP	MORT
	1990	28	50
	1991	29	..
	1992	32	..
EXP - Health expenditure per capita, PPP (current international \$) &	1993	36	37
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1994	39	..
	1995	41	..
	1996	46	..
	1997	53	30
	1998	51	..
	1999	30	..



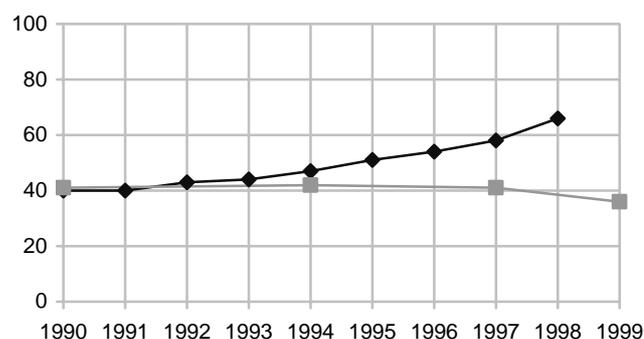
<b>b. Malawi</b>	Year	EXP	MORT
	1990	..	109
	1991	..	..
	1992	..	..
	1993	..	..
EXP - Health expenditure per capita, PPP (current international \$) &	1994	..	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1995	44	..
	1996	40	..
	1997	44	105
	1998	36	..
	1999	..	110



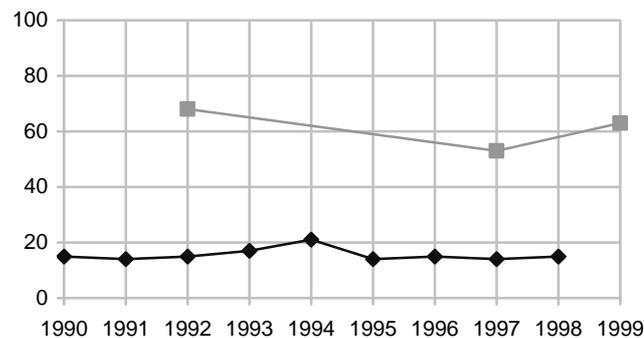
<b>c. Mozambique</b>	Year	EXP	MORT
	1990	25	..
	1991	27	..
	1992	20	93
	1993	19	..
EXP - Health expenditure per capita, PPP (current international \$) &	1994	23	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1995	23	76
	1996	19	..
	1997	19	76
	1998	28	..
	1999	..	83



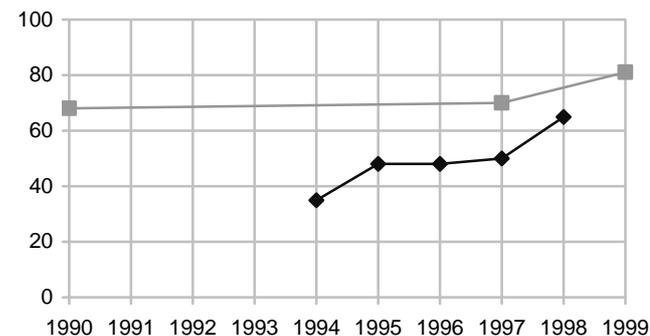
<b>d. Nepal</b>	Year	EXP	MORT
	1990	40	41
	1991	40	..
	1992	43	..
	1993	44	..
EXP - Health expenditure per capita, PPP (current international \$) &	1994	47	42
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1995	51	..
	1996	54	..
	1997	58	41
	1998	66	..
	1999	..	36



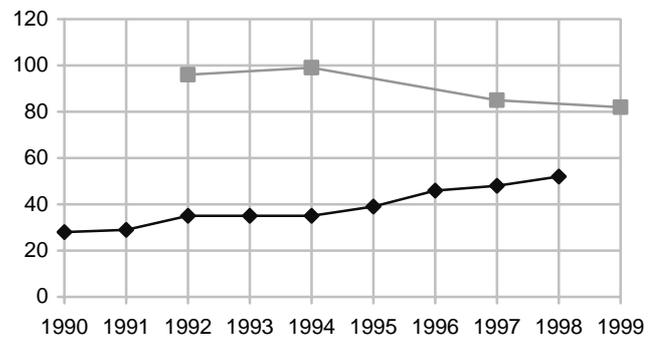
<b>e. Tanzania</b>	Year	EXP	MORT
	1990	15	..
	1991	14	..
	1992	15	68
	1993	17	..
EXP - Health expenditure per capita, PPP (current international \$) &	1994	21	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1995	14	..
	1996	15	..
	1997	14	53
	1998	15	..
	1999	..	63



<b>f. Uganda</b>	Year	EXP	MORT
	1990	..	68
	1991	..	..
	1992	..	..
	1993	..	..
EXP - Health expenditure per capita, PPP (current international \$) &	1994	35	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1995	48	..
	1996	48	..
	1997	50	70
	1998	65	..
	1999	..	81



<b>g. Zambia</b>	Year	EXP	MORT
	1990	28	..
	1991	29	..
	1992	35	96
	1993	35	..
EXP - Health expenditure per capita, PPP (current international \$) & MORT - Mortality rate, 2-5 yrs. (per 1,000 children)	1994	35	99
	1995	39	..
	1996	46	..
	1997	48	85
	1998	52	..
	1999	..	82

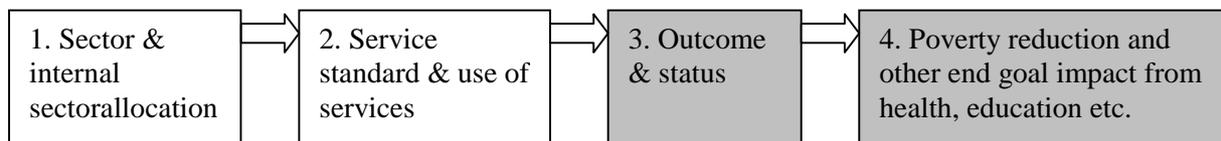


At country level the picture is different. For four of seven countries, the relationship is clear and reasonably strong. Increased resources allocated to the health sector are paying more and more off over the years to reduce child mortality.

For Tanzania there are no clear trends.

For Uganda and partly Mozambique the pictures are strange. During the last half of the 90s, the trends are reverse of what you would expect. Obviously a closer review of the health sector especially in Uganda is worthwhile.

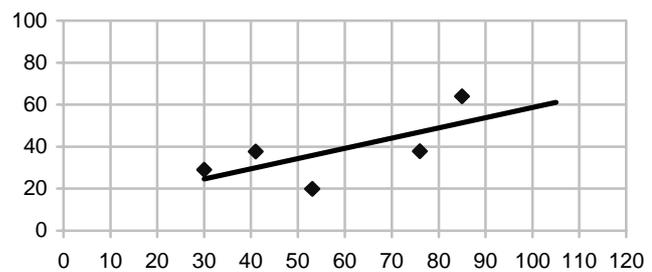
#### 5.8.4. Statistical relationship between service outcome and end goals.



There are valid reasons to expect that improved health should give a positive impact towards poverty-reduction. Firstly, for the poor the main resource is their own labor and reduced working capacity due to reduced health might seriously make a family vulnerable falling into poverty. Secondly, for poor and better off alike, reduced health or even worse a child passing away and requiring an extra child birth is also stretching resources and increasing poverty.

**Figure 5.30. Outcome - impact for health sector for Norwegian partner countries**

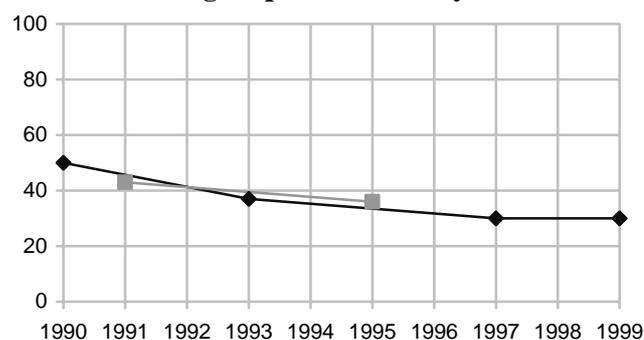
	Country	MORT	POV
	Banglad.	30	29
MORT - Mortality rate 2-5 years old 1997 per 1000 children & POV - Extreme poverty incidence, latest (% under one \$ a day)	Malawi	105	..
	Mozamb.	76	38
	Nepal	41	38
	Tanzania	53	20
	Uganda	70	..
	Zambia	85	64



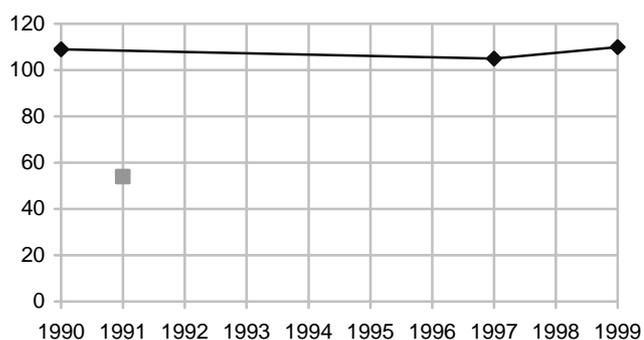
For the group of partner countries there is a may be surprisingly strong relationship, but with quite some variation.

**Figure 5.31. Outcome - impact in health sector for each Norwegian partner country**

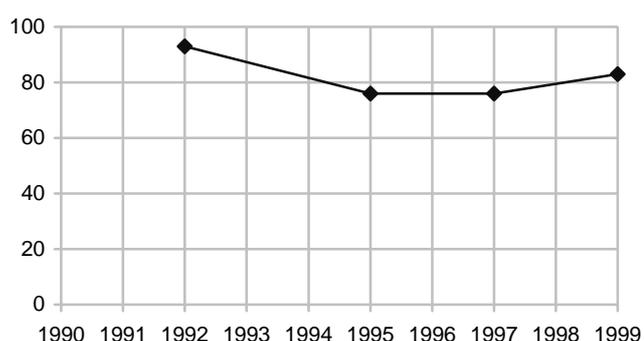
<b>a. Bangladesh</b>	Year	MORT	POV
	1990	50	..
	1991	..	43
	1992	..	..
	1993	37	..
	1994	..	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children) & POV - National poverty incidence (% under national poverty line)	1995	..	36
	1996	..	..
	1997	30	..
	1998	..	..
	1999	30	..



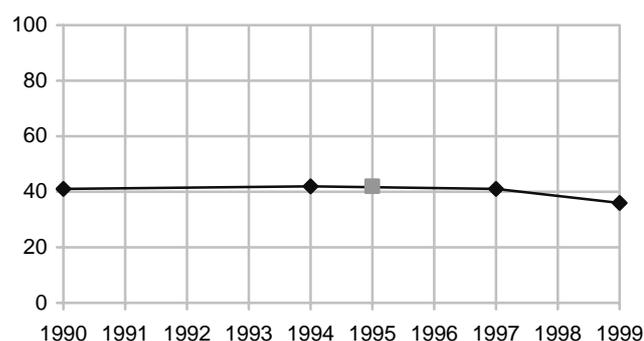
<b>b. Malawi</b>	Year	MORT	POV
	1990	109	..
	1991	..	54
	1992	..	..
	1993	..	..
	1994	..	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children) & POV - National poverty incidence (% under national poverty line)	1995	..	..
	1996	..	..
	1997	105	..
	1998	..	..
	1999	110	..



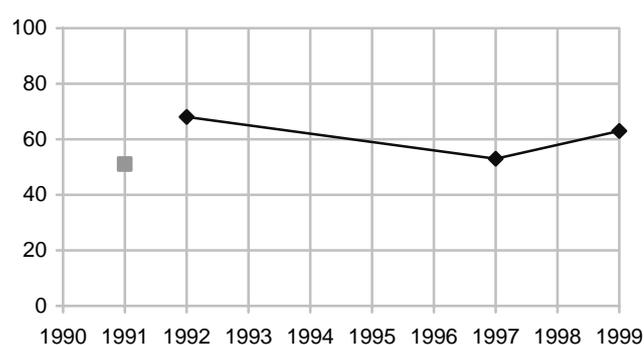
<b>c. Mozambique</b>	Year	MORT	POV
	1990	..	..
	1991	..	..
	1992	93	..
	1993	..	..
	1994	..	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children) & POV - National poverty incidence (% under national poverty line)	1995	76	..
	1996	..	..
	1997	76	..
	1998	..	..
	1999	83	..



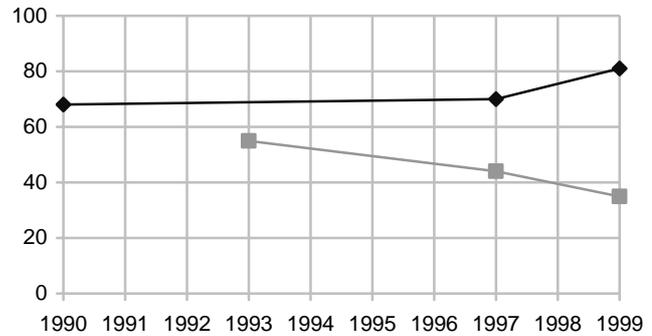
<b>d. Nepal</b>	Year	MORT	POV
	1990	41	..
	1991	..	..
	1992	..	..
	1993	..	..
	1994	42	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children) & POV - National poverty incidence (% under national poverty line)	1995	..	42
	1996	..	..
	1997	41	..
	1998	..	..
	1999	36	..



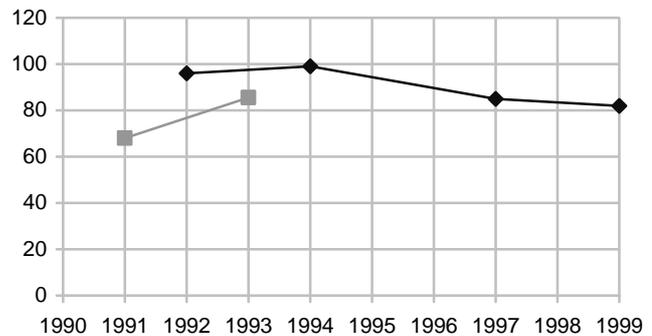
<b>e. Tanzania</b>	Year	MORT	POV
	1990	..	..
	1991	..	51
	1992	68	..
	1993	..	..
	1994	..	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children) & POV - National poverty incidence (% under national poverty line)	1995	..	..
	1996	..	..
	1997	53	..
	1998	..	..
	1999	63	..



<b>f. Uganda</b>	Year	MORT	POV
	1990	68	..
	1991	..	..
	1992	..	..
	1993	..	55
	1994	..	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children) & POV - National poverty incidence (% under national poverty line)	1995	..	..
	1996	..	..
	1997	70	44
	1998	..	..
	1999	81	35



<b>g. Zambia</b>	Year	MORT	POV
	1990	..	..
	1991	..	68
	1992	96	..
	1993	..	86
	1994	99	..
MORT - Mortality rate, 2-5 yrs. (per 1,000 children) & POV - National poverty incidence (% under national poverty line)	1995	..	..
	1996	..	..
	1997	85	..
	1998	..	..
	1999	82	..



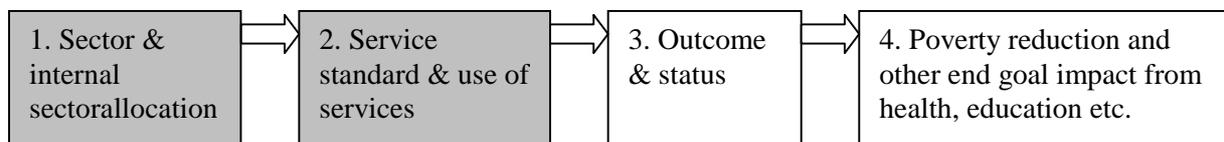
For three of four countries there is a very clear relationship between reduced child mortality and reduced poverty. In fact these graphs open for two hypotheses, both quite interesting from a policy point of view. Either there are some common causes behind both reduced child mortality and reduced poverty or there is a direct causal link (as indicated above) from reduced child mortality to reduced poverty, or both.

Again Uganda is presenting as confused picture, but since we already have seen some peculiar figures for the health sector, these will need a closer look before any interpretation should be presented.

For Malawi, Mozambique and Tanzania data are too short and do not allow for any trend interpretation.

## 5.9. Statistical relationships between steps for the education sector.

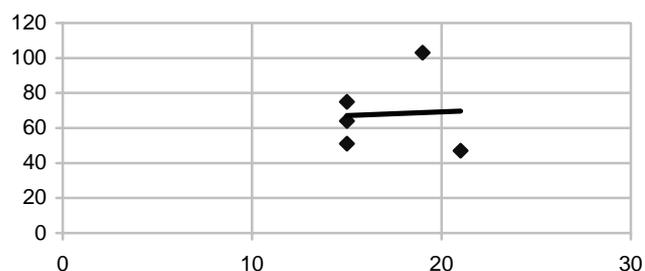
### 5.9.1. Statistical relationship between resource allocation and service standard



The first step is from inputs to service standard and use. As for the health sector, one would expect a positive correlation between the resources allocated and the scope and quality of the services. In the following presentation, however, only one indicator of service standard is included: net enrollment in primary education.

**Figure 5.32. Inputs - outputs in education sector for Norwegian partner countries**

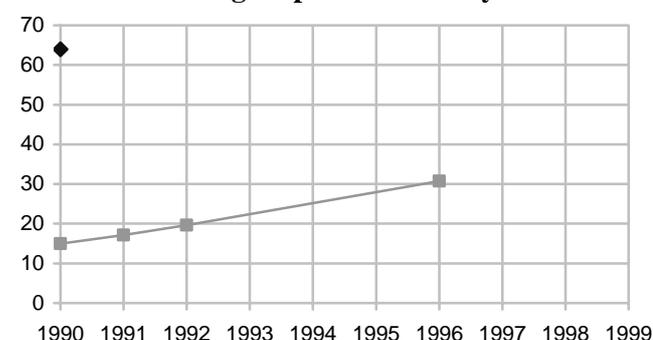
	Country	EXP	ENR
	Banglad.	15	64
	Malawi	19	103
EXP - Education	Mozamb.	21	47
expenditure per capita,	Nepal	..	..
PPP (current international	Tanzania	15	51
\$), ENR - School	Uganda	..	..
enrollment, primary (%	Zambia	15	75
net), (latest year)			



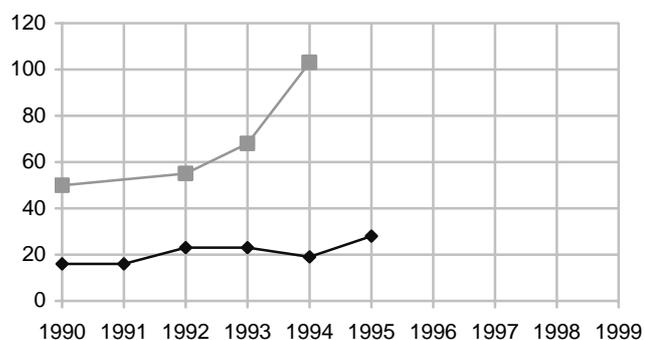
For two of the countries, since 1990 there is no year for which data both on expenditure and net enrollment in primary education is available on international level. It should further be noted that the enrollment figure for Malawi is obviously erroneous, as the upper limit for this indicator by definition is 100 per cent. Malawi made, however, in connection with the political changes at that time, a heavy effort to increase participation in education. So the enrollment figure was expected to be substantially higher than the preceding years. We have made no attempt though to adjust the figure given in official reports. Even if adjusted to an admissible value, say 90 per cent, the general impression would not be altered: There is no clear relationship between the level of education expenditure and the level of enrollment in primary education.

**Figure 5.33. Inputs - outputs in education sector for each Norwegian partner country**

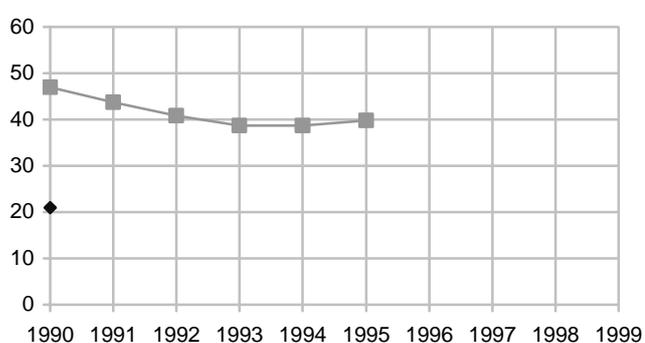
a. Bangladesh	Year	EXP	ENR
	1990	15	64
	1991	17	..
	1992	20	..
	1993	..	..
	1994	..	..
	1995	..	..
EXP - Education	1996	31	..
expenditure per capita, PPP	1997	..	..
(current international \$),	1998	..	..
ENR - School enrollment,	1999	..	..
primary (% net)			



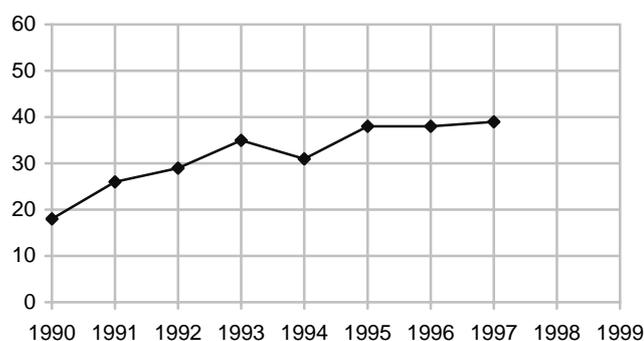
b. Malawi	Year	EXP	ENR
	1990	16	50
	1991	16	..
	1992	23	55
	1993	23	68
	1994	19	103
	1995	28	..
EXP - Education	1996	..	..
expenditure per capita, PPP	1997	..	..
(current international \$),	1998	..	..
ENR - School enrollment,	1999	..	..
primary (% net)			



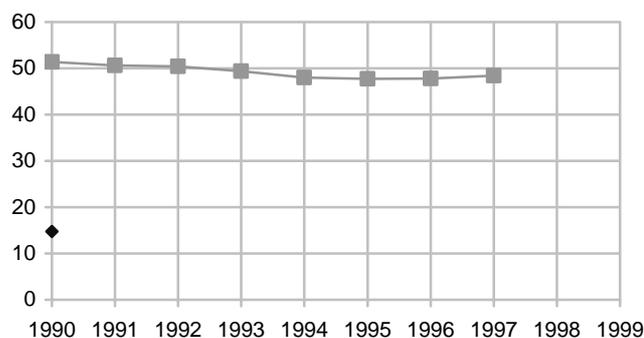
c. Mozambique	Year	EXP	ENR
	1990	21	47
	1991	..	44
	1992	..	41
	1993	..	39
	1994	..	39
	1995	..	40
EXP - Education	1996	..	..
expenditure per capita, PPP	1997	..	..
(current international \$),	1998	..	..
ENR - School enrollment,	1999	..	..
primary (% net)			



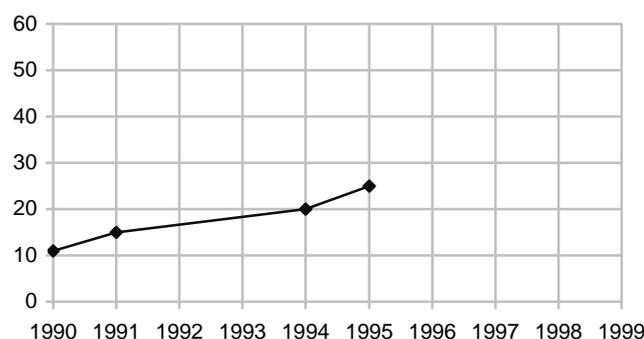
<b>d. Nepal</b>	Year	EXP	ENR
	1990	18	..
	1991	26	..
	1992	29	..
	1993	35	..
	1994	31	..
	1995	38	..
	1996	38	..
	1997	39	..
	1998	..	..
	1999	..	..
EXP - Education expenditure per capita, PPP (current international \$),			
ENR - School enrollment, primary (% net)			



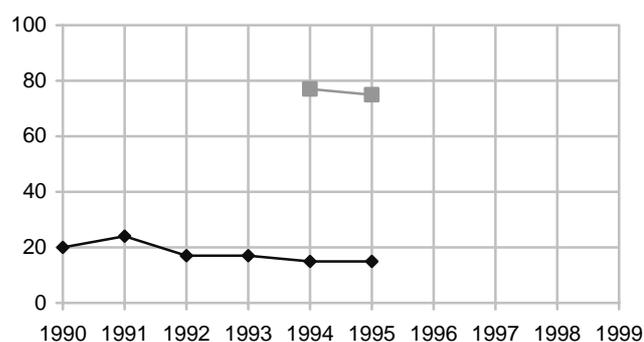
<b>e. Tanzania</b>	Year	EXP	ENR
	1990	15	51
	1991	..	51
	1992	..	50
	1993	..	49
	1994	..	48
	1995	..	48
	1996	..	48
	1997	..	48
	1998	..	..
	1999	..	..
EXP - Education expenditure per capita, PPP (current international \$),			
ENR - School enrollment, primary (% net)			



<b>f. Uganda</b>	Year	EXP	ENR
	1990	11	..
	1991	15	..
	1992	..	..
	1993	..	..
	1994	20	..
	1995	25	..
	1996	..	..
	1997	..	..
	1998	..	..
	1999	..	..
EXP - Education expenditure per capita, PPP (current international \$),			
ENR - School enrollment, primary (% net)			

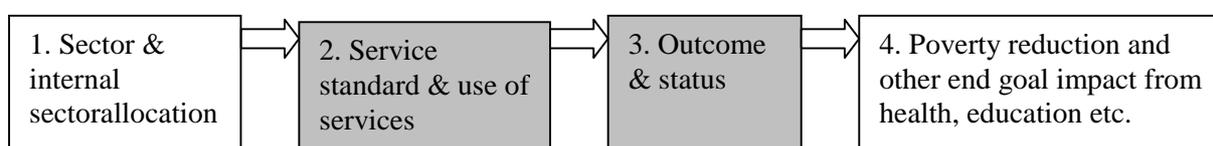


<b>g. Zambia</b>	Year	EXP	ENR
	1990	20	..
	1991	24	..
	1992	17	..
	1993	17	..
	1994	15	77
	1995	15	75
	1996	..	..
	1997	..	..
	1998	..	..
	1999	..	..
EXP - Education expenditure per capita, PPP (current international \$),			
ENR - School enrollment, primary (% net)			



At country level, the most striking impression is the lack of time series for this group of countries. Malawi is the only exception, but, as mentioned above, the enrollment figures data can not be taken face value. Set aside this problem, there is an increase in both indicators, quite in line with the expected association, but as mentioned, other factors most likely have influenced the education policy than the sole level of expenditure.

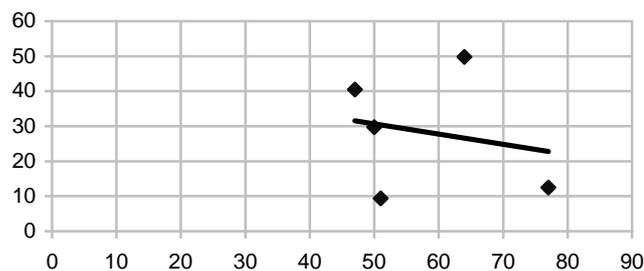
### 5.9.2. Statistical relationship between service standard/ use of services and outcome/ status



The chosen indicator of the outcome, the ability of the education system to produce results, is the illiteracy rate among young people 15-24-year-olds. This rate should obviously be as low as possible.

**Figure 5.34. Outputs - outcome in education sector in Norwegian partner countries**

	Country	ENR	ILL
	Banglad.	64	50
	Malawi	50	30
ENR - School enrollment, primary (% net), 1990	Mozamb.	47	41
	Nepal	..	42
ILL - Illiteracy rate 15-24 year-olds, latest year	Tanzania	51	9
	Uganda	..	22
	Zambia	77	13



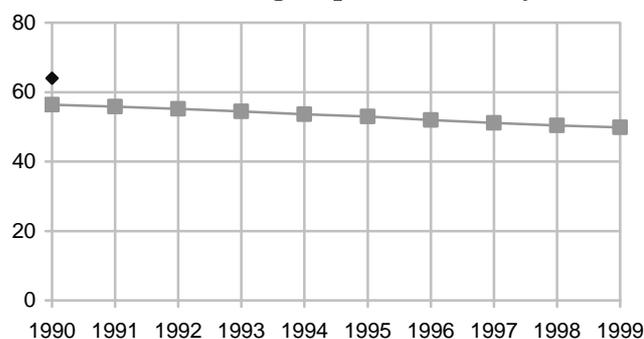
Here, enrollment rates are from 1990, while illiteracy rates are from 1999 for all five countries with data. One would expect that high enrollment would imply that more pupils learn to read and write and lead to low incidence of illiteracy. The relationship is clearly as expected. But one can see substantial variation in literacy achievement between countries with relatively less gap in enrollment: Tanzania had 51 per cent enrollment in 1990 and an outstanding level of only 9 per cent illiteracy in 1999. Bangladesh was slightly better off with 64 per cent enrollment, but still observed 50 per cent young illiterates in 1999.

**Figure 5.35. Outputs - outcome in education sector for each Norwegian partner country**

**a. Bangladesh**

Year	ENR	ILL
1990	64	56
1991	..	56
1992	..	55
1993	..	54
1994	..	54
1995	..	53
1996	..	52
1997	..	51
1998	..	50
1999	..	50

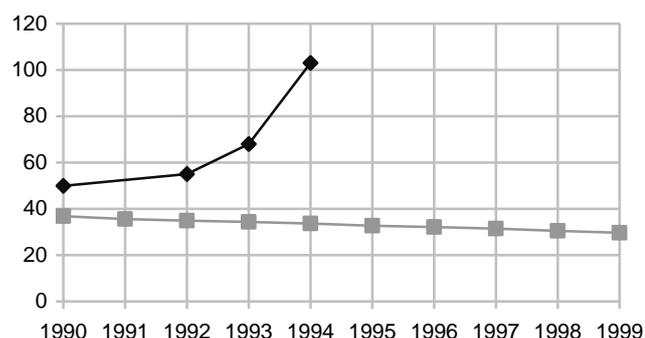
ENR - School enrollment, primary (% net)  
ILL - Illiteracy rate 15-24 year-olds



**b. Malawi**

Year	ENR	ILL
1990	50	37
1991	..	36
1992	55	35
1993	68	34
1994	103	34
1995	..	33
1996	..	32
1997	..	31
1998	..	31
1999	..	30

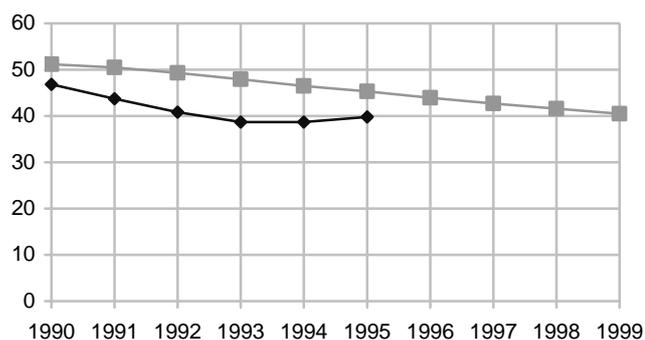
ENR - School enrollment, primary (% net)  
ILL - Illiteracy rate 15-24 year-olds



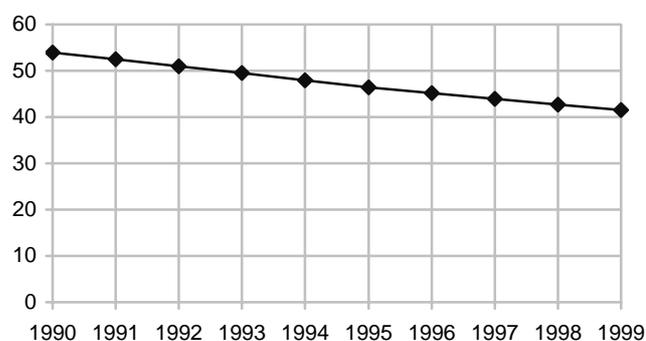
**c. Mozambique**

Year	ENR	ILL
1990	47	51
1991	44	51
1992	41	49
1993	39	48
1994	39	47
1995	40	45
1996	..	44
1997	..	43
1998	..	42
1999	..	41

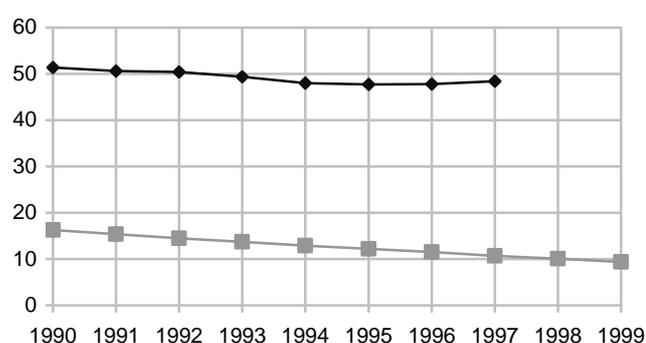
ENR - School enrollment, primary (% net)  
ILL - Illiteracy rate 15-24 year-olds



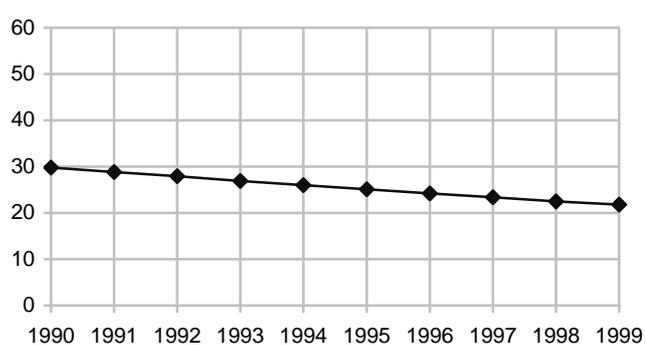
<b>d. Nepal</b>	Year	ENR	ILL
	1990	..	54
	1991	..	53
	1992	..	51
	1993	..	50
	1994	..	48
	1995	..	46
	1996	..	45
ENR - School enrollment, primary (% net)	1997	..	44
ILL - Illiteracy rate 15-24 year-olds	1998	..	43
	1999	..	42



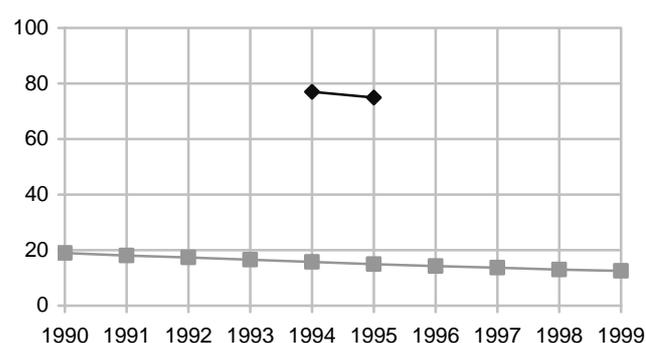
<b>e. Tanzania</b>	Year	ENR	ILL
	1990	51	16
	1991	51	15
	1992	50	15
	1993	49	14
	1994	48	13
	1995	48	12
ENR - School enrollment, primary (% net)	1996	48	12
	1997	48	11
ILL - Illiteracy rate 15-24 year-olds	1998	..	10
	1999	..	9



<b>f. Uganda</b>	Year	ENR	ILL
	1990	..	30
	1991	..	29
	1992	..	28
	1993	..	27
	1994	..	26
	1995	..	25
ENR - School enrollment, primary (% net)	1996	..	24
	1997	..	23
ILL - Illiteracy rate 15-24 year-olds	1998	..	23
	1999	..	22



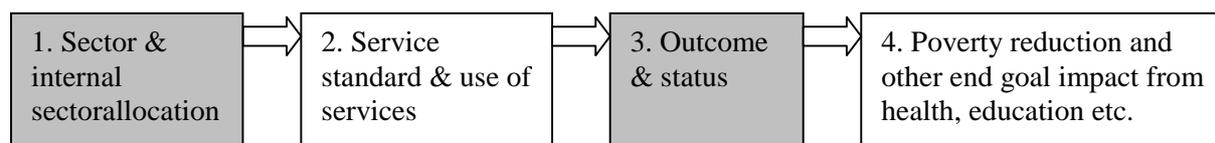
<b>g. Zambia</b>	Year	ENR	ILL
	1990	..	19
	1991	..	18
	1992	..	17
	1993	..	17
	1994	77	16
	1995	75	15
ENR - School enrollment, primary (% net)	1996	..	14
	1997	..	14
ILL - Illiteracy rate 15-24 year-olds	1998	..	13
	1999	..	13



All NORAD partnercountries have full time-series for the outcome indicator, while enrollment rates are relatively scarce. Nepal and Uganda have no figures available at all on enrollment, and Bangladesh for 1990 only. In Mozambique and Tanzania both enrollment rates and illiteracy rates drop during the 1990ies. Only for Malawi the expected association is observed: Increased enrollment and reduced illiteracy.

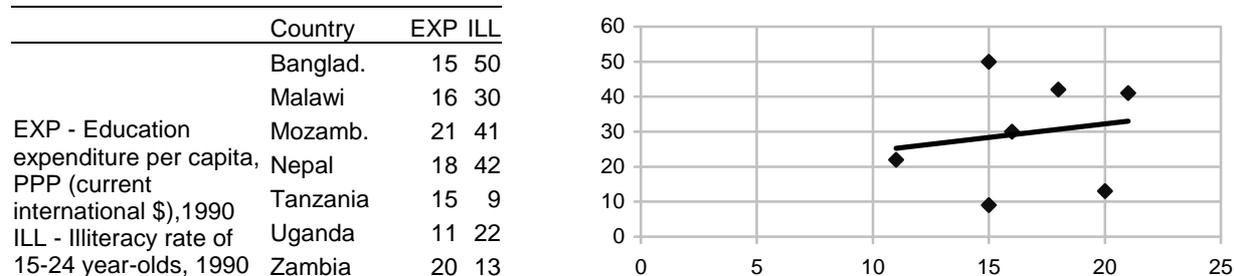
It is, however, interesting to observe that the illiteracy rates are decreasing, without exception, uniformly in every country. The direct impact of enrollment rates within this short time horizon is highly questionable. Either the time horizon is too short, or other factors influence the illiteracy rates, or both.

**5.9.3. Statistical relationship between resource allocation and outcome/ final educational achievement/ status.**



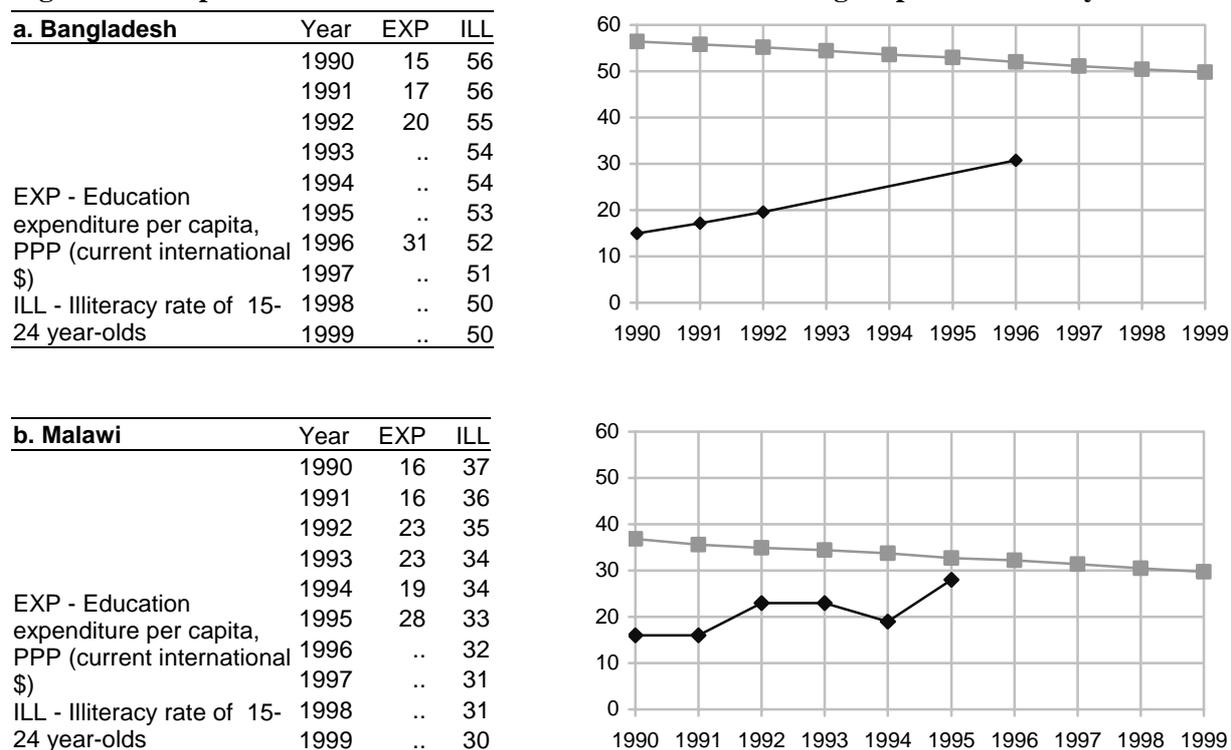
As for the health sector, we also present the direct relationship between inputs and outcome.

**Figure 5.36. Inputs- outcome in education sector in Norwegian partner countries**

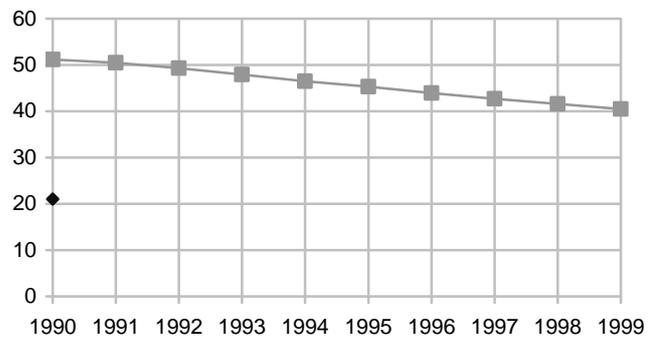


The table shows the relationship between expenditure per capita in 1990 and the illiteracy rate among young people in 1999. Again, there is a tendency of a positive correlation, indicating that countries which allocate more to the education sector, also have more illiteracy. This relationship is weak, though, and there is a high degree of variation.

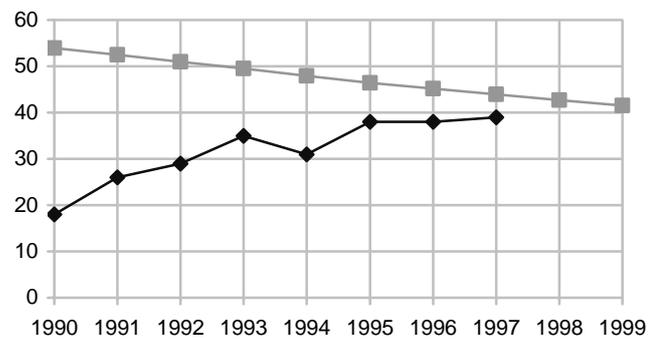
**Figure 5.37. Inputs - outcome in education sector for each Norwegian partner country**



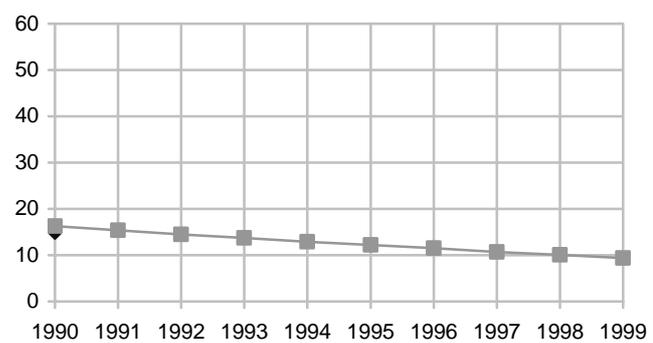
<b>c. Mozambique</b>			
	Year	EXP	ILL
	1990	21	51
	1991	..	51
	1992	..	49
	1993	..	48
	1994	..	47
EXP - Education expenditure per capita, PPP (current international \$)	1995	..	45
	1996	..	44
	1997	..	43
ILL - Illiteracy rate of 15-24 year-olds	1998	..	42
	1999	..	41



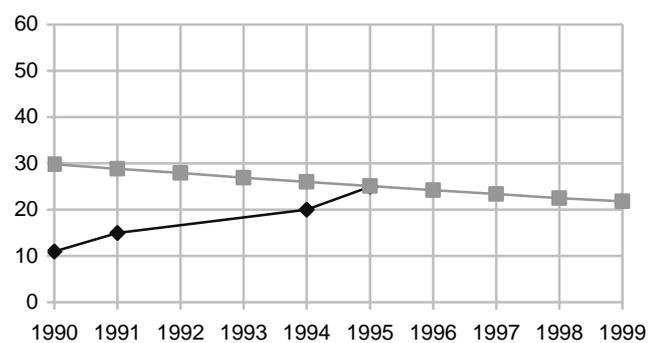
<b>d. Nepal</b>			
	Year	EXP	ILL
	1990	18	54
	1991	26	53
	1992	29	51
	1993	35	50
	1994	31	48
EXP - Education expenditure per capita, PPP (current international \$)	1995	38	46
	1996	38	45
	1997	39	44
ILL - Illiteracy rate of 15-24 year-olds	1998	..	43
	1999	..	42



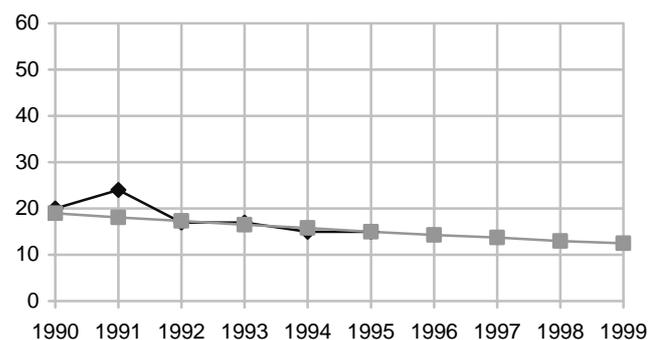
<b>e. Tanzania</b>			
	Year	EXP	ILL
	1990	15	16
	1991	..	15
	1992	..	15
	1993	..	14
	1994	..	13
EXP - Education expenditure per capita, PPP (current international \$)	1995	..	12
	1996	..	12
	1997	..	11
ILL - Illiteracy rate of 15-24 year-olds	1998	..	10
	1999	..	9



<b>f. Uganda</b>			
	Year	EXP	ILL
	1990	11	30
	1991	15	29
	1992	..	28
	1993	..	27
	1994	20	26
EXP - Education expenditure per capita, PPP (current international \$)	1995	25	25
	1996	..	24
	1997	..	23
ILL - Illiteracy rate of 15-24 year-olds	1998	..	23
	1999	..	22

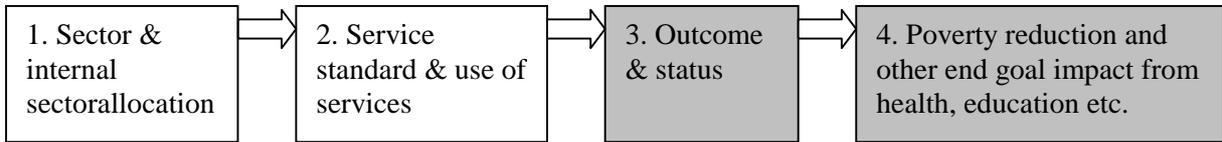


<b>g. Zambia</b>			
	Year	EXP	ILL
	1990	20	19
	1991	24	18
	1992	17	17
	1993	17	17
	1994	15	16
EXP - Education expenditure per capita, PPP (current international \$)	1995	15	15
	1996	..	14
	1997	..	14
ILL - Illiteracy rate of 15-24 year-olds	1998	..	13
	1999	..	13



At country level, Tanzania and Mozambique lack sufficient data. Among four of the countries with time series data on both indicators, the negative association is observed, while Zambia has a decreasing trend for both.

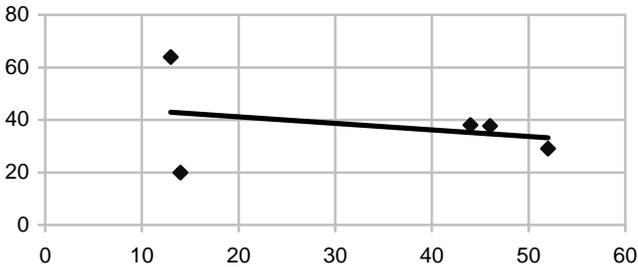
**5.9.4. Statistical relationship between service outcome and end goals.**



We have also chosen to present the direct relationship between inputs and outcome. The justification is that the inputs might give an equally well based indication of total service availability. Hence you might expect a closer relationship especially at country level.

**Figure 5.38. Outcome - impact in education sector in Norwegian partner countries**

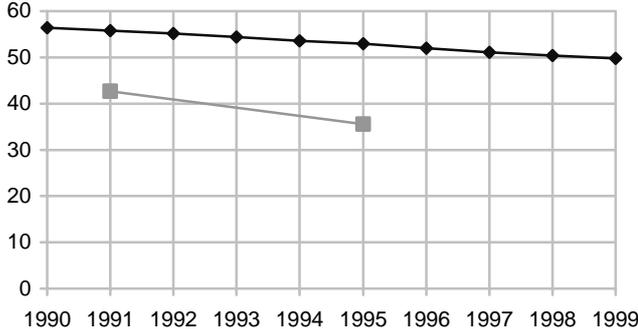
	Country	ILL	POV
	Banglad.	52	29
	Malawi	..	..
ILL - Illiteracy rate of 15-24 year-olds,	Mozamb.	44	38
POV - Extreme poverty incidence, latest (% under one \$ a day)	Nepal	46	38
	Tanzania	14	20
	Uganda	..	..
	Zambia	13	64



**Figure 5.39. Outcome - impact in education sector for each Norwegian partner country**

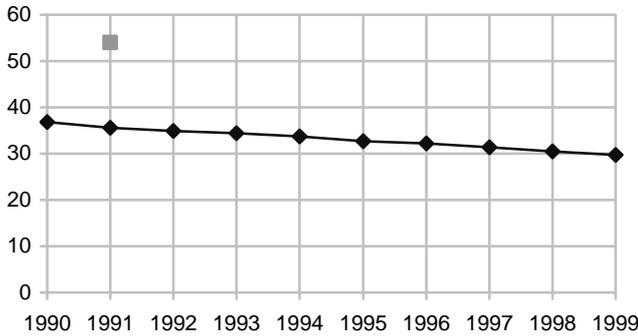
**a. Bangladesh**

Year	ILL	POV
1990	56	..
1991	56	43
1992	55	..
1993	54	..
1994	54	..
1995	53	36
1996	52	..
1997	51	..
1998	50	..
1999	50	..

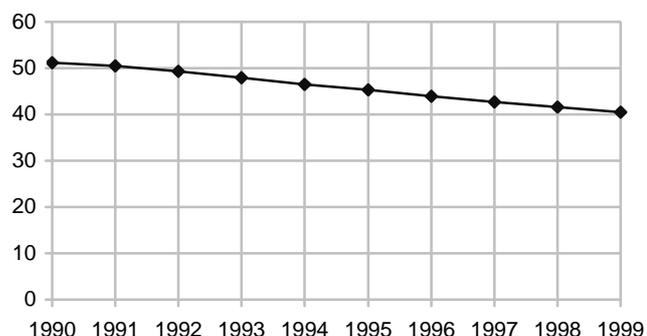


**b. Malawi**

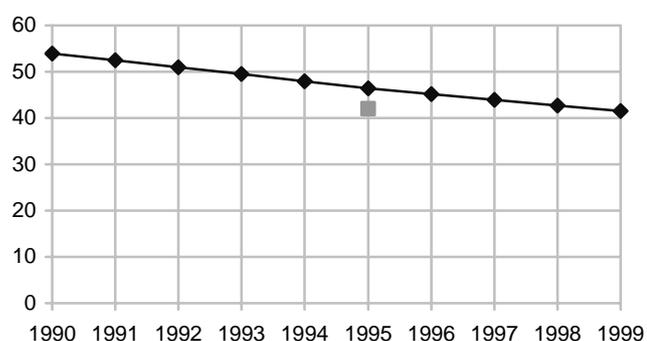
Year	ILL	POV
1990	37	..
1991	36	54
1992	35	..
1993	34	..
1994	34	..
1995	33	..
1996	32	..
1997	31	..
1998	31	..
1999	30	..



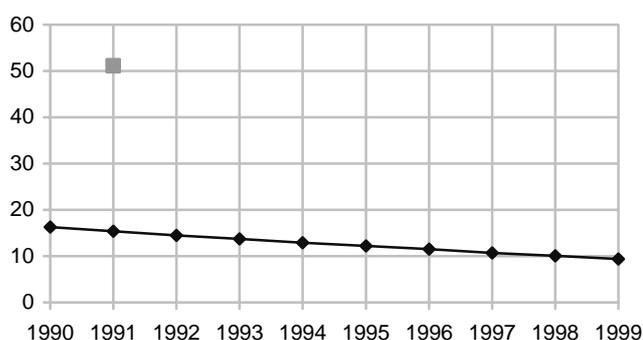
<b>c. Mozambique</b>			
	Year	ILL	POV
	1990	51	..
	1991	51	..
	1992	49	..
	1993	48	..
	1994	47	..
	1995	45	..
ILL - Illiteracy rate of 15-24 year-olds,	1996	44	..
POV - National poverty incidence (% under national poverty line)	1997	43	..
	1998	42	..
	1999	41	..



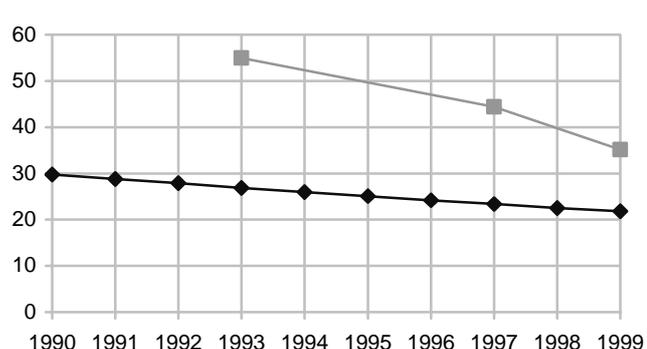
<b>d. Nepal</b>			
	Year	ILL	POV
	1990	54	..
	1991	53	..
	1992	51	..
	1993	50	..
	1994	48	..
	1995	46	42
ILL - Illiteracy rate of 15-24 year-olds,	1996	45	..
POV - National poverty incidence (% under national poverty line)	1997	44	..
	1998	43	..
	1999	42	..



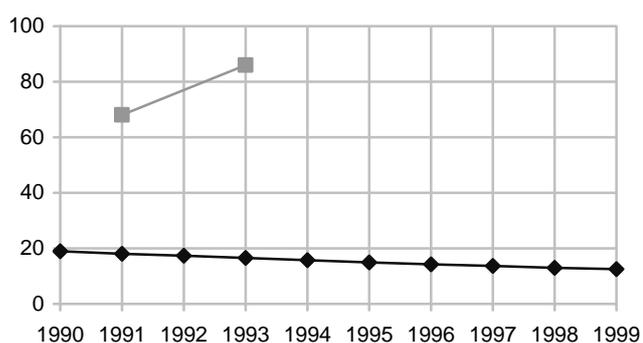
<b>e. Tanzania</b>			
	Year	ILL	POV
	1990	16	..
	1991	15	51
	1992	15	..
	1993	14	..
	1994	13	..
	1995	12	..
ILL - Illiteracy rate of 15-24 year-olds,	1996	12	..
POV - National poverty incidence (% under national poverty line)	1997	11	..
	1998	10	..
	1999	9	..



<b>f. Uganda</b>			
	Year	ILL	POV
	1990	30	..
	1991	29	..
	1992	28	..
	1993	27	55
	1994	26	..
	1995	25	..
ILL - Illiteracy rate of 15-24 year-olds,	1996	24	..
POV - National poverty incidence (% under national poverty line)	1997	23	44
	1998	23	..
	1999	22	35



<b>g. Zambia</b>			
	Year	ILL	POV
	1990	19	..
	1991	18	68
	1992	17	..
	1993	17	86
	1994	16	..
	1995	15	..
ILL - Illiteracy rate of 15-24 year-olds,	1996	14	..
POV - National poverty incidence (% under national poverty line)	1997	14	..
	1998	13	..
	1999	13	..

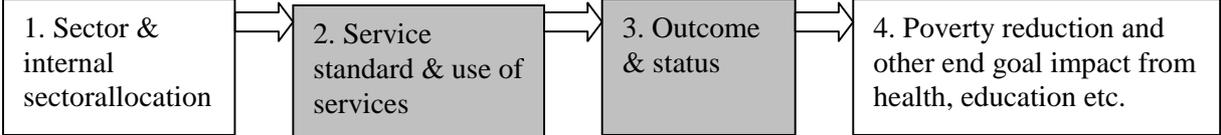


### 5.10. Statistical relationships between steps for the water and sanitation sector

As already presented, there were a number of gaps in available statistics at the international level for the health and education sectors. However, the gaps are even larger for the water and sanitation sector. Some data, such as public and private expenditures, are not available, most of the others have so large gaps that it is not possible to present trend data for single countries.

Hence our focus will solely be on presenting data jointly for the NORAD partner countries. Even then we are not able to present any data on resource allocation and therefore we have to drop the two steps monitoring the statistical relationship between resource allocation and output or outcome.

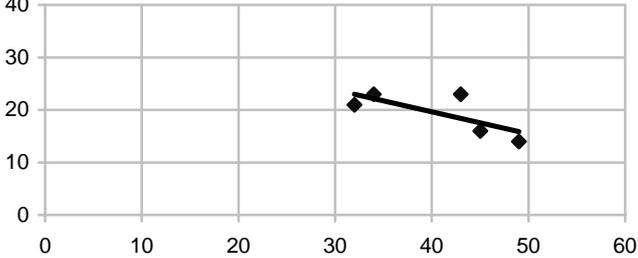
#### 5.10.1. Statistical relationship between service standard/ use of services and outcome/ status



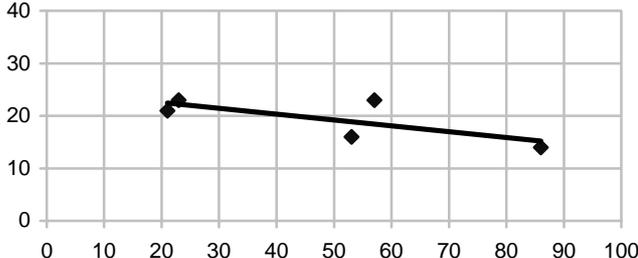
With the exception of private investment data, the standard worldwide data bases do not include information on water and sanitation, but for African countries, data on access to safe water and sanitation are available from the World Bank Africa Database (World Bank 2001a). This includes information on diarrhoea as well.

**Figure 5.40. Outputs - outcome in water & sanitation sector in Norwegian partner countries**

a.		WAT	DIA
	Malawi	45	16
	Mozamb.	32	21
WAT - % with access to safe water and DIA - Diarrhoea disease incidence	Tanzania	49	14
	Uganda	34	23
	Zambia	43	23



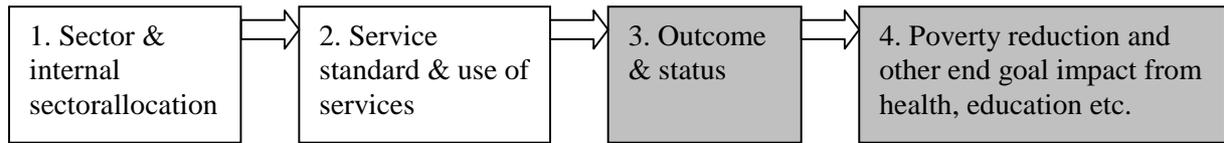
b.		SAN	DIA
	Malawi	53	16
	Mozamb.	21	21
SAN - % with access to sanitation and DIA - Diarrhoea disease incidence	Tanzania	86	14
	Uganda	57	23
	Zambia	23	23



The graphs show a clear relationship between access to safe water and/or access to safe sanitation and the incidence of diarrhoea. The relationship is quite convincing and would serve well to justify a strong advocacy to invest in access to safe water and sanitation to improve health status in these countries.

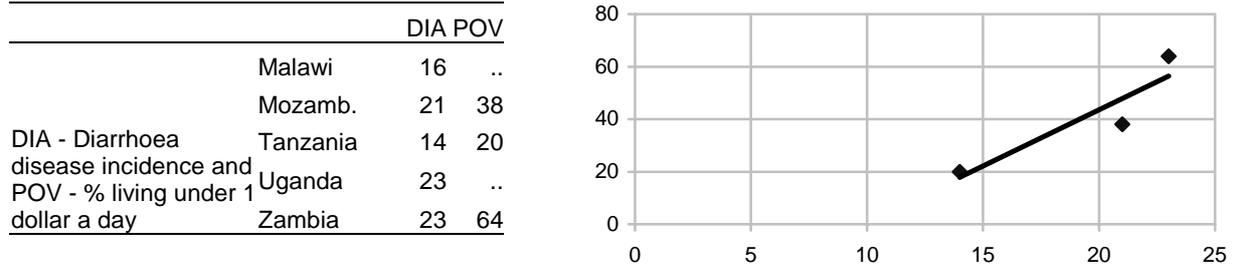
There is one outlier for each relationship, but these are two different countries. Uganda does not receive the expected outcome of increased access to safe water and Zambia does not receive the expected outcome of increased access to safe sanitation. There might be many reasons, but one obvious possibility is that the water and sanitation programs in these countries are losing out in quality during implementation. A clear recommendation would be to review the quality of water supply in Uganda and sanitation approach in Zambia.

**5.10.2. Statistical relationship between service outcome and end goals.**



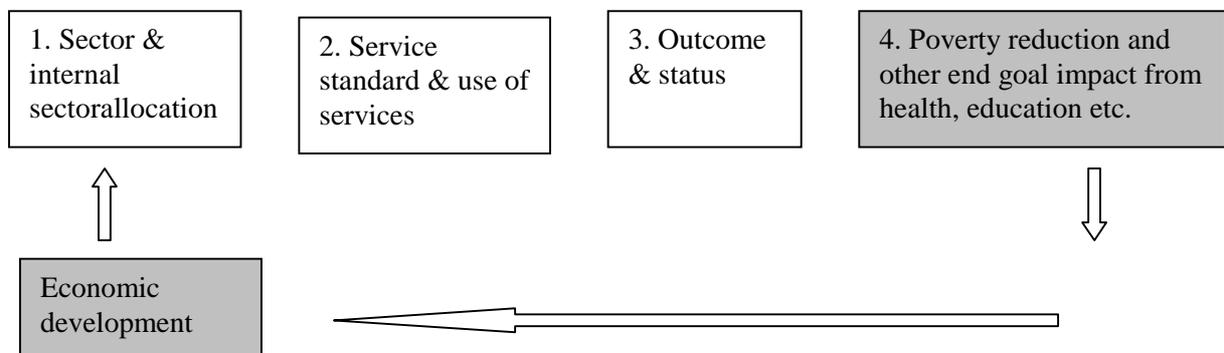
Diarrhea is presented here as an indicator of the use of clean water and proper sanitation and you would expect the lack of such amenities to reduce the labour force in a household and hence increase the likelihood of falling into the poverty trap.

**Figure 5.41. Outcome - impact in water & sanitation sector in Norwegian partner countries**



The data shows a strong relationship between incidence of diarrhea and poverty. A reduced incidence of diarrhea is strongly related with a reduction in poverty. In fact the relationship is stronger than one would expect. Even with a considerably weaker relationship, this is an indication of a very high pay off for poverty reduction from investment in increased access to safe water and sanitation.

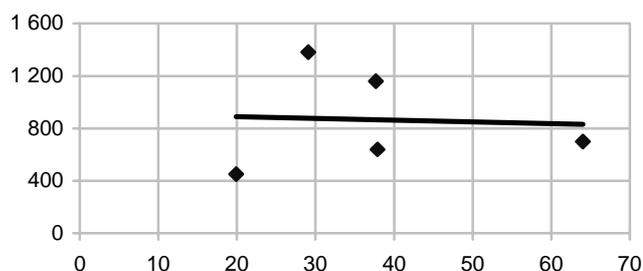
**5.11. Feed back, human end goal achievements towards economic development**



More than before it is important to stress that we are not testing any causal relationship, but are just focusing on the relationship between reduced poverty and economic development. There are valid theoretical reasons to expect a causal link in both directions. Testing such a hypothesis is however quite difficult. You will expect that a higher GNI in one year reduces poverty in the next and that reduced poverty one year means higher production the next year. However, given there parallel development there is hardly possible to test these causal relationships straight away. Hence the policy focus is usually rather on how pro-poor the policy is and this is judged by the increase in income for poor versus non-poor.

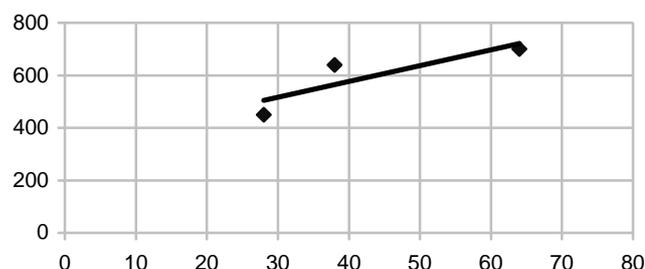
**Figure 5.42. End goal - economic development feed back in Norwegian partner countries**

	Country	POV	GNI
	Banglad.	29	1 380
POV - Extreme poverty incidence, latest (% under one \$ a day) & GNI - GNI per capita, PPP (current international \$)	Malawi	..	..
	Mozamb.	38	640
	Nepal	38	1 160
	Tanzania	20	450
	Uganda	..	..
	Zambia	64	700



**Figure 5.43. End goal - economic development feed back in Norwegian partner countries in Africa**

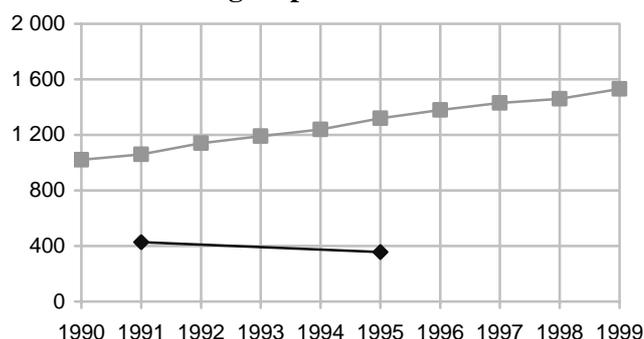
	Country	POV	GNI
POV - Extreme poverty incidence, latest (% under one \$ a day) & GNI - GNI per capita, PPP (current international \$)	Malawi	..	..
	Mozamb.	38	640
	Tanzania	20	450
	Uganda	..	..
	Zambia	64	700



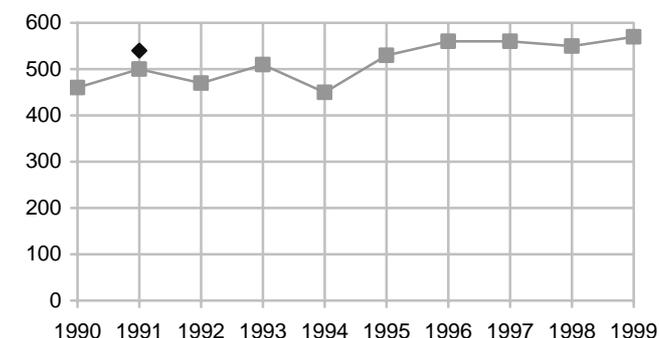
For the partner countries as a group, the poverty level is hardly related to GNI per capita. There is a tendency that a larger GNI per capita is related to a slightly lower poverty head count, but the relationship is neither strong nor clear.

**Figure 5.44. End goal - economic development feed back in Norwegian partner countries**

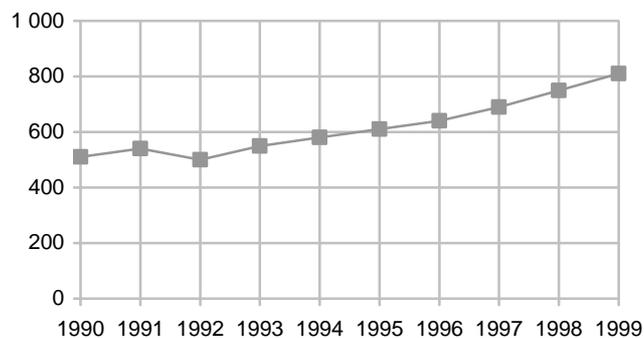
<b>a. Bangladesh</b>	Year	POV	GNI
	1990	..	1 020
	1991	427	1 060
	1992	..	1 140
	1993	..	1 190
	1994	..	1 240
POV - National poverty incidence (% under national poverty line) & GNI - GNI per capita, PPP (current international \$)	1995	356	1 320
	1996	..	1 380
	1997	..	1 430
	1998	..	1 460
	1999	..	1 530



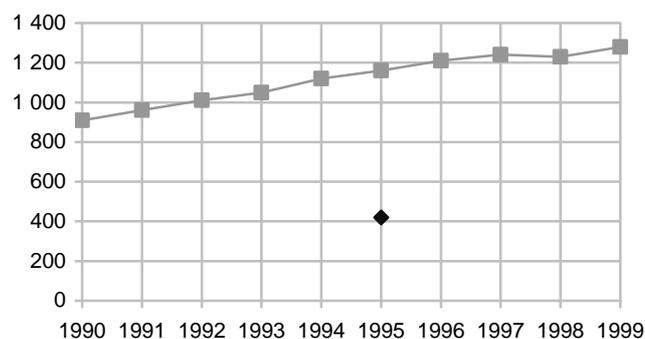
<b>b. Malawi</b>	Year	POV	GNI
	1990	..	460
	1991	540	500
	1992	..	470
	1993	..	510
	1994	..	450
POV - National poverty incidence (% under national poverty line) & GNI - GNI per capita, PPP (current international \$)	1995	..	530
	1996	..	560
	1997	..	560
	1998	..	550
	1999	..	570



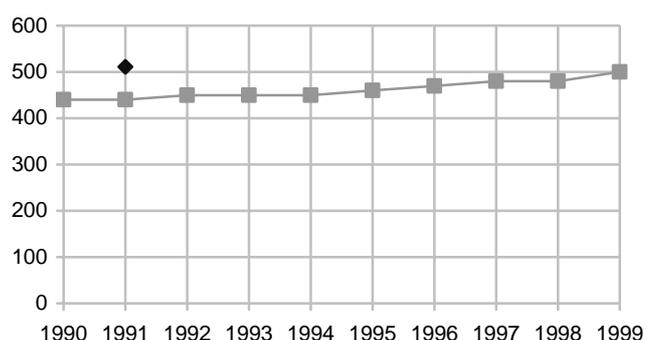
<b>c. Mozambique</b>	Year	POV	GNI
	1990	..	510
	1991	..	540
	1992	..	500
	1993	..	550
	1994	..	580
POV - National poverty incidence (% under national poverty line) &	1995	..	610
GNI - GNI per capita, PPP (current international \$)	1996	..	640
	1997	..	690
	1998	..	750
	1999	..	810



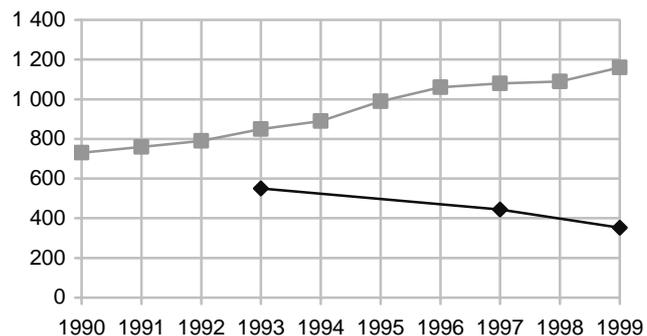
<b>d. Nepal</b>	Year	POV	GNI
	1990	..	910
	1991	..	960
	1992	..	1 010
	1993	..	1 050
	1994	..	1 120
POV - National poverty incidence (% under national poverty line) &	1995	420	1 160
GNI - GNI per capita, PPP (current international \$)	1996	..	1 210
	1997	..	1 240
	1998	..	1 230
	1999	..	1 280



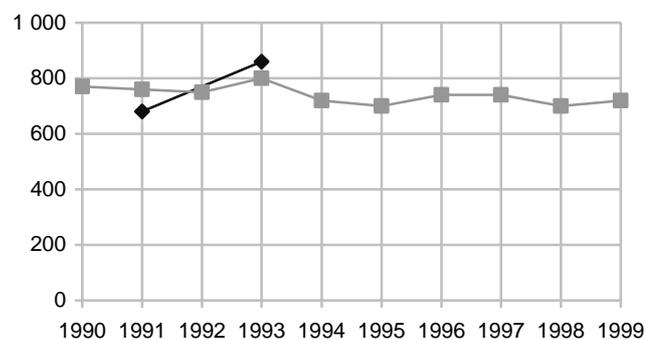
<b>e. Tanzania</b>	Year	POV	GNI
	1990	..	440
	1991	511	440
	1992	..	450
	1993	..	450
	1994	..	450
POV - National poverty incidence (% under national poverty line) &	1995	..	460
GNI - GNI per capita, PPP (current international \$)	1996	..	470
	1997	..	480
	1998	..	480
	1999	..	500



<b>f. Uganda</b>	Year	POV	GNI
	1990	..	730
	1991	..	760
	1992	..	790
	1993	550	850
	1994	..	890
	1995	..	990
POV - National poverty incidence (% under national poverty line) &	1996	..	1 060
GNI - GNI per capita, PPP (current international \$)	1997	444	1 080
	1998	..	1 090
	1999	352	1 160



<b>g. Zambia</b>	Year	POV	GNI
	1990	..	770
	1991	680	760
	1992	..	750
	1993	860	800
	1994	..	720
	1995	..	700
POV - National poverty incidence (% under national poverty line) & GNI	1996	..	740
- GNI per capita, PPP	1997	..	740
(current international \$)	1998	..	700
	1999	..	720



At country level there are big data gaps, but in general a clear tendency that reduced poverty is followed by increased GNI per capita. However in Zambia there is hardly any relationship.

## 6. International Trends and Issues

The following chapter summarizes the development of policies in Norwegian bilateral and multilateral assistance, which is mainly discussed based on the Government White papers, but also other documentation and development. The chapter furthermore provides a brief overview of more recent policy development within the international community. The UN conferences during the last decade are summarized, and some important milestones with regards to social sector are listed according to the relevant agencies. Much of this is drawn from *Review of Norwegian Health Related Development Cooperation 1988-1997*, Hodne Steen, Olsen and Kolberg<sup>15</sup>.

### 6.1. Norwegian Policies and Strategies

In general, the policy and strategy development in Norway closely follows the international development. It is important to note that up to 1992 there were no particular health or education policy and strategy papers. Through all the years the focus has been on the poor, but there has been a change from poverty orientation via poverty reduction to combating poverty.

According to Hodne Steen, Olsen and Kolberg (2000) development co-operation has been guided by the policies set out in the Government White Papers and operationalize through the annual Parliamentary Bills. According to Government White Papers there have not been drastic policy changes in the past decade or so. Health development co-operation is seen as an important contribution to the overall development goals of *improved economic, social and political situation* for the population within the frame of sustainable development. In 1986, rather than using sustainable development, it was emphasized that co-operation should be tailored in such a way as to avoid creating dependency. The 1991 White Paper uses the term *people centered development* and *people's participation* rather than sustainable development. The principle of *recipient orientation* guided the co-operation. The 1992 White Paper added *recipient responsibility*. The 1995 White Paper underlines the fact that a clear definition of roles and responsibilities is a prerequisite for sustainable development. Already in 1984 the intention was that 10% of development aid should be allocated to health. However, the UN conferences and the goal of 20/20 are strongly reflected in the 1995 White Paper. This was followed up through Parliamentary Bills, which put more emphasis on the social sector and indicate an increase in resource allocations.

The 1984 White paper emphasizes the *human right to satisfy basic needs*. In the White Papers to follow this does not appear as clearly as it did in 1984. Human Rights are in later White Papers emphasized in relation to population policies; on the one hand, women have the right to decide on family size, on the other hand, support to population programs require assurance that human rights are not violated.

*Systems development* has become increasingly important. In 1991 it is mentioned for the first time that Norwegian aid should contribute to improving efficiency. The latest White Paper stresses the fact that Norwegian co-operation should strengthen public sector capacity to deliver basic services and strengthen administrative capacity.

*Budget support* (recurrent cost) was mentioned as a strategy to assure basic education and health services to the entire population already in the 1984 White Paper and confirmed in 1986. Since then this has only been mentioned in the 1995 Technical Guidelines.

*Policies in relation to channels for development co-operation:*

The Conservative government (1984) intended to increase the proportion of aid channeled through bilateral aid. However, the Labour government that took over and created an additional White Paper (1986) confirmed the previous policy of 50% through multilateral and 50% through bilateral channels. The 1991 White Paper did not only confirm this distribution, but indicated that it would be desirable to

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<sup>15</sup> Hodne Steen, S., Olsen, I.T. and Kolberg, J.E. Review of Norwegian Health-related Development Cooperation 1988-1997. MFA Evaluation Report 1/2000.

increase the resources channeled through multilateral agencies *as potential for influencing aid is much higher* than through bilateral aid. The support to MCH/FP should be channeled mainly through multilateral organizations. This is confirmed again in 1995. It is even more explicitly spelled out that Norway should *make the most of its participation on boards, earmark financial resources (rather than project financing) to promote Norwegian development aid policy, and choose areas which have a larger influence on the total policy of the organization.* One of the areas to be given special attention and effort through earmarking is the *development of primary health services. Norway wishes to encourage the multilateral organizations to take a broader approach (rather than the control of a specific disease).*

Concerning technical assistance and use of expertise, the 1995 White Paper, states that the Government would promote a clearer division of roles and a better balance between the World Bank and the UN in terms of technical assistance. It would also promote increased participation by Norwegian institutions and expert communities in multilateral aid activities, especially in fields where Norway has special advantages including an increase in the recruitment of Norwegian nationals for international organizations.

In 1986, it was stated that the increase of funds channeled through NGOs witnessed in recent years would not continue at the same pace. In 1991, it was stated that 1/3 of bilateral aid in general should be channeled through NGOs. The 1995 White Paper reiterates the importance of maintaining close co-operation with NGOs. It states that the substantial increase in government support through NGOs generates a need to focus greater attention on the qualitative aspects of their efforts: *Quality assurance and outcome of results, should be just as important criteria for aid provided through NGOs as for aid allocated for other channels.* The Parliamentary Bills have also underlined that the NGO sector should be subject to the same criteria and quality requirements as the development aid in general. This is also spelled out in the 1995 Technical Guideline.

The Parliamentary Bills of the eighties do not provide any additional guidelines for the allocation of resources. They are much more elaborate and specific in the nineties and give concrete guidelines for how resources given to the different organizations are supposed to be used.

### **6.1.1. Future Directions**

The 1999 Parliamentary Bill reiterated the government's commitment to the social sector and states that the proportion for social services (mainly health and education) should reach 20% of total development co-operation within the year 2000. It indicated an increased support in the fight against HIV/AIDS, malaria and tuberculosis. The press release in June 1998 by the current Minister of Development and Cooperation does also indicate increased support for AIDS – underlining not only the individual aspects of the disease, but also the socio-economic consequences that need more far reaching interventions than the previous focus on prevention. The multilateral agencies are reiterated as important channels for health support and it is stated that continued support to UNICEF and UNFPA is justified “*through good results at country level*” without more specific verification. In line with the 1995 White Paper, this Parliamentary Bill underlines the need for *health systems support* referring to Norwegian support through World Bank and WHO.

A recent letter to the Dir. General of WHO<sup>16</sup> gives an indication of the current policies and priorities and falls in line with the latest Parliamentary Bill. It draws attention to the need to improve the health situation of the *poorest* segments of the world population in which the (i) HIV/AIDS epidemic is central. In addition to HIV/AIDS, the letter points out three additional areas that should be given greater effort on the part of WHO: (ii) combating tuberculosis, (iii) fighting malaria and (iv) supporting the development of sustainable health systems.

The establishment of a chief advisor on the social sector reiterates the commitment to the social sector and operationalization of 20/20 Initiative. The strategic notes<sup>17</sup> that guide the future investments confirm the previous statements especially in the 1993 Technical guideline.

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<sup>16</sup> MOH/MIDHR. 12 October 1998: Letter to Dir. Gen. Dr. Brundtland

<sup>17</sup> Sosial sektor utvikling: Strategiske og operasjonelle valg. Bakgrunnsnotat: grunnleggende sosiale tjenester

Box 1: Policy Documents on Health Development

*The main policy throughout the years has been to strengthen Primary Health Care. In the 1995 White Paper, the term basic services is introduced and defined as PHC including family planning. The focus has been on children and women through MCH services. In the eighties the term family planning including MCH is used and it is emphasized that FP should be integrated into MCH services. The emphasis has changed in 1991 when it is stated that 10% should be allocated to MCH and family planning. In 1984 it was formulated as family planning including MCH. Safe Motherhood, maternal mortality is given increased importance and becomes more and more specific. In the 1995 White paper, obstetric care and research to improve statistics and registration of maternal mortality is specifically mentioned. The focus is reproductive health rather than family planning - a direct response to ICPD.*

*Disease control has been part of Norwegian priority policies throughout the period. AIDS prevention is mentioned for the first time in 1986 and has been the focus throughout the following years. Lately policy signals<sup>1</sup> do indicate that interventions should also consider the socio-economic implications of the epidemic. The Ministry of Foreign Affairs has approved the following three sector papers, namely:*

- *Guidelines for Development Aid to AIDS Control. (1992)*
- *Strategy for Assistance to Children in Norwegian Development Co-operation (1992)*
- *A Question of Women's Right to Choice, Norwegian Strategy for Population and Development. (1995)*

*A fourth paper is an internal guideline for health sector support in NORAD (1995) developed by the technical advisors in the technical department. This guideline, hereafter called 1995 Technical Guideline, provides a frame for the approved sector papers, as the presentation below demonstrates.*

*The 1995 Technical Guideline outlines the strategic choices for Norwegian support to the health sector, which are, in accordance with the White Papers, based on the assumption that health is a prerequisite for human welfare and has a great impact on economic growth. The basic assumption is that NORAD support forms part of a strategic approach to the health sector having national plans and priorities as its point of departure. It constitutes the following ten strategic choices:*

- *All people have the right to basic health services. It is a public responsibility to assure a just distribution of such services*
- *Support for any intervention, regardless of the channel should consider the total need of the sector, assessed on the basis of national plans for the sector and in light of institutional capacity and competence in the recipient country. NGOs play an important role in the health sector. Their support should be evaluated according to how they contribute to national plans and priorities*
- *should contribute to improvement of the quality of basic health services*
- *NORAD support should contribute to public institutions having the necessary capacity to take the overall responsibility to direct and co-ordinate, both at central and local level in public administration and to strengthening the relationship between public and private sector.*
- *necessary reforms in the health sector especially through interventions that strengthen the capacity of relevant institutions to plan and implement the reforms. (Included national health systems research)*
- *vulnerable groups having access to health services and children<sup>1</sup> should be a priority target group. Priority areas: Children's rights linked to public administration, health and nutrition, education, care and early stimulation of children, interventions for children in difficult circumstances. Health services for children, school health programs, tuberculosis and AIDS control be an integrated part of national primary health services*
- *reproductive health is a special priority in Norwegian development co-operation*
- *NORAD should be willing to give budget support*
- *technical support, primarily in an institutional setting, is a possible instrument in support of the health sector*
- *the same guidelines should apply when evaluating all bilateral support regardless channels*

*A Task Force on social sector was established internally in NORAD as an effort to operationalize and follow-up the intentions of the 20/20 Initiative. The group made a considerable effort to identify countries and ways of increasing support to the social sector. Participation in Sector Wide approaches is not only a guiding principle for a mode of operation, but can also be seen as a facilitating instrument to increase support to the social sector.*

## 6.2. UN Conferences

Five UN conferences on the social sector were held from 1990 to 1995, indicating increased focus on social sector. The most relevant are:

- The 1990 World Summit for children included a politically salient agenda for health. The plan of action has specific goals related to nutrition and child health as well as defined goals in the area of *protection of girls and women* and *education*. The focus was the UN Convention on the *Rights of the Child* (CRC).
- The 1994 International Conference on Population and Development (ICPD) perspective is no longer focused on population growth and fertility control, but “places human beings at the centre of population and development activities”. Empowering women becomes an important end in itself. The Program of Action enunciates *the right to universal, comprehensive reproductive health care* pointing out that education and access to resources is essential for empowerment.
- The 1995 World Summit on Social Development confirmed the Program of Action agreed to in Cairo. The 20/20 Initiative aims at *ensuring that all people have access to basic services*.

## 6.3. International Milestones

The processes and milestones in the international context are reflected in a number of different ways in the policies and strategies of bilateral and multilateral agencies. Some important milestones in the development in some international agencies are listed in the figures below.

World Bank 1980	1984	1993	1997
Health Policy: Basic Health Infrastructure CHW/paraprofessionals Logistics and supplies MCH/FP Management	WDR: Pop. and Dev: Government Resp. to reduce mortality and morbidity	WDR: Inv. in Health Cost-effective Essential health services	HNP strategy Improve HNP outcome Enhance performance of health care systems Sustainable health care financing

UNFPA 1973	1993	1994
Mandate: Population and FP Build knowledge and capacity Promote awareness Assist dev. countries Assume a leading role in UN	Mandate confirmed Program areas: Family Planning IEC Data Collection Policy formulation	After ICPD: Program areas: Universal access to RH incl. FP + sex. health Support pop. and dev. strategies Promote awareness of pop. & dev. Advocate mobilization of resources.

UNICEF 70-80ies	1990	1995	1997
Child Survival and Development Universal Child Immunizations  Bamako Initiative	Nutrition Strategy Breastfeeding Vit. A supplementation  Micro nutrients (?)	Health Strategy Implementation Plan Management of childhood diseases Malaria control/Guinea Worm Eradication Adolescents and Women’s Health Safe Motherhood (IEC) Prev. of mother/child transm .HIV/AIDS. Strength. govt cap. to ensure ess. health serv. for children, adolescents and women.	Revitalizing PHC Eradication Adolescents and Women’s Health Safe Motherhood (IEC) Prev. of mother/child transm .HIV/AIDS. Strength. govt cap. to ensure ess. health serv. for children, adolescents and women. Integration of programs/SWAP

UNESCO 1948	1960	1990	2001-2010
The declaration of human rights, Article 26. Right to education	The Convention against Discrimination in Education,	The World Declaration on Education for All adopted by the World Conference on Education for All,	International Basic Education Decade (planned)

#### **6.4. Statistical follow-up of UN conferences.**

UN Statistical Division has two main functions. First, they serve as a secretariat for the UN Statistical Commission and in this capacity they work to coordinate and develop global statistical standards. Second they collect, compile and disseminate statistical information from all UN member-states to the UN system at large. Both these functions are important from our perspective.

The UN Statistical Office does not revise the data they receive from the member states and hence their database is well designed to follow the changes within a country over time. Due to potentially different statistical methods or different applications of methods and standards they might however not be well suited for cross-country comparisons.

The work to coordinate the development indicators was discussed by the UN Statistical Commission 8-10/3-1999 and by ECOSOC 10-11/5-1999 and is presented in the ECOSOC report to the Secretary-General E/1999/11: Integrated and coordinated implementation and follow-up of major United Nations conferences and summits. Of special interest is the presentation of four sets of indicators by the UN Statistical Office and the number of countries for which this information is available.

### 6.4.1. List of Indicator Data Set from UN Statistical Division approved by ECOSOC

#### Cross-conference indicator initiatives

<i>of</i> <u>Programme name</u> <u>indicators</u>	<u>Responsible</u> <u>institution/ body</u>	<u>Purpose</u>	<u>Number</u> <u>Conferences</u>
Minimum National 15 <sup>a</sup> Social Data Set (MNSDS)	Statistical Commission	To monitor the major areas of concern addressed by the recent major United Nations conferences. The Statistical Commission also invited users to build on MNSDS to meet national needs and circumstances, and to provide feedback on the implementation and use of the MNSDS <sup>b</sup> (Habitat II)	International Conference on Population and Development, World Summit for Social Development, Fourth World Conference on Women, and United Nations Conference on Human Settlements
Basic Social Services for All	Administrative Committee on Coordination (ACC), Task Force on Basic Social Services for All	To bring to the attention of a broader audience the goals of recent United Nations conferences in areas relating to basic social services, and to give a concise statistical overview of the range of current national situations and of the progress that will be needed to achieve the goals (Habitat 11)	International Conference on 3 <sup>c</sup> Population and Development, World Summit for Social Development, Fourth World Conference on Women, and United Nations Conference on Human Settlements
United Nations conference Development Assistance Framework- common country assessment (UNDAF-CCA)	United Nations inter- agency working group on indicators, representatives from all the member agencies of the United Nations Development Group	To review and analyse the national development situation and identify key issues as a basis for advocacy and policy dialogue <sup>d</sup> To highlight potential major issues in a country by focusing attention on and measuring progress in specific areas	See list in annex 1 40 indicators)
International 21 <sup>e</sup> development goals <sup>18</sup> PARIS 21 10 indicators	Economic Cooperation and Development (OECD), United Nations, World Bank	To monitor progress towards a selection of conference goals as presented in <i>Shaping the 21st Century: The Contribution of Development Cooperation</i> and adjust development strategies as required. To give an integrated world view of human well- being in its economic, social and environmental aspects Conference on Women	World Conference on Education for All, United Nations Conference on Environment and indicators) Development, International Conference on Population and Development, World Summit for Social Development, Fourth World

<sup>a</sup>See report of the Expert Group on the Statistical Implications of Recent Major United Nations Conferences (E/CN.3/AC.1/1996/R.4,annex).

<sup>b</sup> *Official Records of the Economic and Social Council, 1997, Supplement No. 4 (E/1997/24), para. 67 (b).*

<sup>c</sup>Under the auspices of the Task Force, the Department of Economic and Social Affairs prepared the wall chart on Basic Social Services for All, 1997 (ST/ESA/SER.A/160); see also United Nations, "Charting the Progress of Populations" (ESA/P/WP.149), 1998.

<sup>d</sup> United Nations Development Group, "Guidelines, Common Country Assessment", final draft, 31 March 1999, annex A, boxes A (Conference indicators) and C (Contextual indicators). The framework also contains some qualitative indicators on governance and civil and political rights.

<sup>e</sup> OECD, a Working Set of Indicators of Development Progress: <http://www.oecd.org/dac/Indicators/htm/list.htm>

<sup>18</sup> Launched in April 1999 by OECD/DAC, World Bank, & UNDP as International development goals indicators, later presented as PARIS 21 indicators

#### 6.4.2. List of Indicators in indicator Data Set from UN Statistical Division approved by ECOSOC

### Union of core indicator sets (Minimum National Social Data Set (MNSDS), Organisation for Economic Cooperation and Development (OECD)-United Nations-World Bank<sup>19</sup> - PARIS 21, United Nations Development Assistance Framework- common country assessment UNDAF-CCA), a basic social services for all (BSSA))

Topics/indicator	MNSDS	PARIS 21	UNDAF	CCA	BSSA	Number of countries <sup>b</sup>
1. Population and population growth						
Estimated population size by age and sex <sup>c</sup>	x					
Total population <sup>d</sup>		x	x		x	145
Total fertility rate		x	x			190
2. Health and mortality						
Life expectancy at birth	x	x	x		x	144
Under-five mortality rate	x	x	x		x	163
Infant mortality rate	x	x	x		x	190
Proportion of the population with access to primary health care services			x		x	79
Human immunodeficiency virus (HIV) adult prevalence rate			x			145
HIV prevalence in pregnant women aged 15-24 <sup>e</sup>		x	x			124
3. Reproductive health						
Maternal mortality rate (per 100,000 live births)	x	x	x		x	140
Contraceptive prevalence rate	x	x	x		x	159
Percentage of births attended by appropriately trained health/skilled personnel		x	x			74
4. Food security and nutrition						
Percentage of household income spent on food				x		
Percentage of population below minimum level of dietary energy consumption				x		
Proportion/prevalence of underweight children <sup>f</sup>		x	x		x	86
5. Education						
Adult literacy rate		x	x		x	164
Net primary enrolment ratio		x	x			102
Percentage reaching grade 5/completion of grade 4		x	x			101
Average number of years of schooling completed <sup>g</sup>	x					
Literacy rate of persons aged 15-24 <sup>h</sup>		x	x			77
6. Gender equality and women's empowerment						
Percentage of seats held by women in national government, including parliament				x		
Percentage of paid employees who are women				x		54
Ratio of girls to boys in primary & secondary education <sup>i</sup>		x	x		x	126
7. Child's health welfare						
Percentage of children one year of age immunized against measles				x		145
Percentage of children aged 10-14 who are employed				x		147
8. Employment						
Unemployment rate	x			x		
Informal sector employment as percentage of total employment				x		
Employment-population ratio <sup>j</sup>	x			x		
9. Income and poverty						
Household income per capita (level and distribution)	x					
Poverty headcount ratio (percentage of population below national poverty line)				x		56
Poverty headcount ratio (percentage below \$1 a day)		x		x		59
Poverty gap ratio		x		x		51
Monetary value of the minimum food basket <sup>k</sup>	x					
Poorest fifth's share of national consumption		x		x		74
10. Housing and basic household amenities and facilities						
Percentage of population with access to adequate sanitation	x			x		78
Percentage of population with access to safe drinking water	x	x		x		115
Number of persons per room, excluding bathroom <sup>l</sup>	x			x		
11. Environment						
Arable land per capita		x				146
Percentage change in forest land area in the last 10 years		x				143
Percentage of the population that relies on traditional fuels for energy use		x				
Countries with national sustainable development strategies		x				171
Intensity of freshwater use		x				133
Biodiversity: land area protected		x		x		135
Energy efficiency: gross domestic product (GDP) per unit of energy use		x		x		136
Carbon dioxide emissions (per capita)		x		x		176
12. Drug control and crime prevention						
Area under cultivation of coca, opium poppy and cannabis				x		
Number of crimes per 100,000 inhabitants				x		
Prevalence of drug abuse				x		
Seizures of illicit drugs				x		

<sup>19</sup> Launched in April 1999 as OECD/DAC, World Bank, UNDP indicators, later presented as PARIS 21 indicators

13. Economics				
Total gross national product (GNP)		x		
GNP or gross domestic product (GDP) per capita	x	x	x	141
External debt (US\$) as percentage of GNP		x	x	105
Decadal growth rate of GNP per capita (US\$)			x	
Investment as percentage of GDP		x		123
Trade as percentage of GDP n		x	x	
Aid as percentage of GNP		x		112
Share of foreign direct investment (FDI) in GDP			x	
Percentage of public expenditures on social services			x	

Note: Several of the indicators in this presentation are specified by sex in the different sets. However, classification by sex should be applied to all indicators, where feasible.

a United Nations Development Group, "Guidelines: Common Country Assessment", final draft, 31 March 1999, annex A, boxes A (Conference indicators) and C (Contextual indicators). The framework also contains some qualitative indicators on governance and civil and political rights.

b Number of countries on the basis of indicators presented either in the UNDP Human Development Report, 1998 (New York, Oxford University Press, 1998) or in the 1997 World Development Indicators (World Bank). The source of the number of countries for the Adult Literacy Rate is United Nations Educational, Scientific and Cultural Organization (UNESCO).

c MNSDS: where appropriate and feasible, by ethnic group.

d UNDAF: by age, to identify target groups.

e OECD: use Adult rate if data not available; UNDAF HIV prevalence in pregnant women under age 25 who receive antenatal care in capital cities/major urban areas.

f UNDAF: children under age 5 who are underweight, stunted and wasted.

g MNSDS: by urban/rural and, where possible, by income class.

h OECD: in addition, ratio of literate females to males.

i UNDAF: only secondary education.

j MNSDS: where appropriate, by formal and informal sector.

k MNSDS: food needed for minimum nutritional requirement.

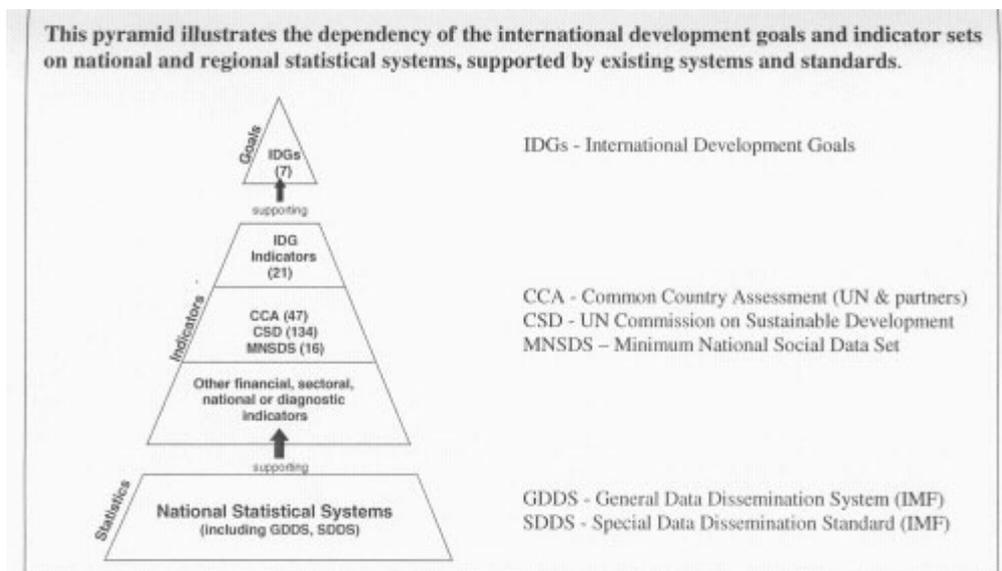
l UNDAF: if data are not available, floor area per person.

m UNDAF: US dollars and purchasing power parities (PPPs).

n UNDAF: share of exports in GDP

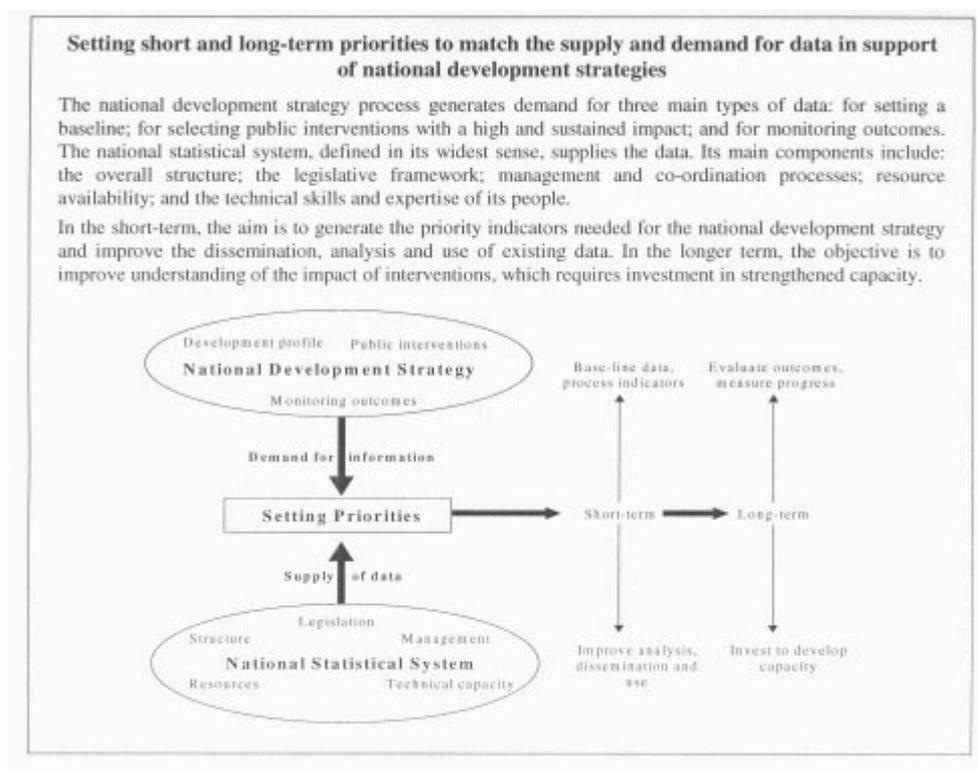
## 6.5. PARIS21

The PARTnership In Statistics for development in the 21st Century or PARIS21 was initiated by users and producers of statistics alike based upon a mutual interest for data and documentation from several professions and interest groups at the turn of the century. Following the discussions from the UN summits in the end 1990s the need for standardized statistical information was raised by a number of agencies. The UN Statistical Commission took charge, reviewed and jointly presented a number of initiatives i.e. the IMF data sets for national statistical institutes being the General Data Dissemination Standard (GDSS) and the Specialized Data Dissemination Standard (SDSS), and the subject matter indicator datasets being the Minimum National Social Data Set (MNSDS), UN Commission on Sustainable Development indicators (CSD), and the Common Country Assessment indicators (CCA). The UN Statistical Commission reviewed how the indicators could serve to monitor the International Development Goals and presented a proposal for the UN Economic and Social Council (ECOSOC). This process led to a set of 21 indicators of the International Development Goals, an indicator set endorsed by the UN system, the World Bank, IMF and the OECD Development Assistance Committee (OECD/DAC).



Source: [www.paris21.org/pdf/4pagenoteENgr.pdf](http://www.paris21.org/pdf/4pagenoteENgr.pdf)

These agencies called for a meeting of senior policymakers and statisticians in PARIS in November 1999. The meeting endorsed again the indicators and launched the PARTnership In Statistics for development in the 21st Century or PARIS21 initiative ([www.paris21.org/index.htm](http://www.paris21.org/index.htm)).



The PARIS21 initiative has from the outset organized a series of meetings linked to other formal meetings on policy issues, monitoring and statistics. The work is organized around a set of task forces with open and voluntarily membership working mainly by e-mail. A special emphasis is given to poverty monitoring for the PRSP process. The so-called Utstein-group of donors, United Kingdom, the Netherlands, Germany and Norway initiated this focus. The former two provided the initial funding for a special consortium implemented by the World Bank. This consortium has now attracted funding from other donors as well and provides short-term support for establishing poverty monitoring and long-term support for building capacity for continuous poverty monitoring for the PRSP process.

<b>PARIS21, Task Teams</b> ( <a href="http://www.paris21.org/html/task_teams.htm">www.paris21.org/html/task_teams.htm</a> )
1) Advocacy Products Making the case for better information
2) Information Exchange Statistical capacity building projects and events
3) Sequenced Information Strategies Process and experience with strategies
4) Indicators Poverty monitoring and statistical capacity
5) Methodologies and Technologies New developments and costs
6) Census Funding and management of censuses

## 6.6. PRSP

The World Bank and IMF have launched a renewed effort to reduce poverty and have declared their intention to support low-income countries developing and implementing a poverty reduction strategy to be presented in a Poverty Reduction Strategy Paper. The idea is that these papers will present both a macroeconomic framework as in the old Policy Framework Papers and a poverty reduction strategy. Countries preparing a PRSP approved by the two Bretton Woods institutions will be eligible for the Heavily Indebted Poor Countries (HIPC) II initiative. The PRSP papers are to be presented both in an interim version, iPRSP, and in a final version, PRSP. The main content of a PRSP will be a strategy to reduce poverty and ensure a sound macro-economic policy in a country. But it is also a precondition that the PRSP should include a poverty-monitoring plan. This would comprise a plan to monitor the

poverty reducing actions as well as a plan to monitor poverty as such. Monitoring poverty will include the nature of or various dimensions of poverty, incidence and intensity of poverty, geographical and socio-economic distribution and information on barriers and opportunities the poor are facing and finally potential causal factors increasing or rather reducing poverty.

There is still a process to develop the content of PRSPs, but guidelines from the World Bank and IMF and the first set of PRSPs prepared are setting some standards. Both the guidelines and the papers prepared do include indicators of implementation of special poverty reducing actions, of macro economic indicators, and poverty end goal indicators. So far the Basic Policy Data approach of presenting indicators of the chain of events leading up to a possible outcome is not promoted.

The PRSP program is well documented at the World Wide Web and includes both a very comprehensive sourcebook ([www.worldbank.org/poverty/strategies/sourctoc.htm](http://www.worldbank.org/poverty/strategies/sourctoc.htm)), iPRSP and PRSPs released ([www1.worldbank.org/prsp/](http://www1.worldbank.org/prsp/)) and a number of other documents ([www.worldbank.org/poverty/strategies/index.htm](http://www.worldbank.org/poverty/strategies/index.htm)).

## 6.7. SWAP

Securing national leadership for a country's health sector development, institutional structures and capacity for regulating and managing a national health system lead to thinking about how donor financing for the health sector should be organized in order to support reform processes. Following the intentions in the WDR 1993, the World Bank in 1994 started to talk about Sector Investment Programs that would ideally involve all donors in the sector in supporting national programs.

Several international meetings on sector-wide approaches have since taken place: first in Copenhagen, then in Dublin<sup>20</sup>. Several countries are now along with their partners, striving towards a mode of operation different from the previous project support for a SWAP.

## 6.8. Essential Health Care Packages

Terms like basic services, basic care and essential clinical services have for quite a while been used in different contexts and in a number of different publications, but the term *essential package* was specified in World Development Report 1993<sup>21</sup>. In the report the term actually consists of two parts: *the essential public health package* and *the essential clinical services*. The recommended package to be provided by the public includes the following elements, where the estimated annual costs per participant, per capita and per DALY is given for low and middle-income countries:

- EPI plus
- School health program
- Other public health programs (incl. family planning, health and nutrition information)
- Tobacco and alcohol control program
- AIDS prevention program

Similarly a minimum essential package for clinical services includes the following elements:

- Short-course chemotherapy for tuberculosis
- Management of the sick child
- Prenatal and delivery care
- Family planning
- Treatment of sexually transmitted diseases
- Limited care<sup>22</sup>

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<sup>20</sup> A document co-sponsored by WHO describing the discussions and concepts is published.

<sup>21</sup> World Bank. 1993. World Development Report 1993, Investing in Health.

<sup>22</sup> Limited care includes assessment, advice, alleviation of pain, treatment of infection and minor trauma, and treatment of more complicated conditions as resources permits.

The rationale behind introducing the essential package is welfare economic, based on estimations of disability adjusted life years (DALYs), public goods, external effects and market errors. The underlying assumption is thus that services should be provided and financed privately, unless one can prove that it is more beneficiary to provide these publicly.

The more recent term *a core set of interventions* is very similar, and focuses on interventions or programs that should be provided as a set. The countries themselves should decide on which interventions should be included according to their situation and the overall goals and objectives of the sector. The benefit of focusing on the essential package/core set of interventions is that indicators for health sector development could become more apparent.

### **6.8.1. DALY**

The global burden of disease (GBD) study (Murray and Lopez, 1990) and the World Development Report 1993 has produced a framework for establishing a measure for health outcome, which incorporates premature mortality and disability into a single time-based measure, Disability Adjusted Life Years (DALYs). DALYs are a type of health gap that measures the difference between a person's health and a normative goal of living in full health. This measure has increasingly been used for assessing the relative importance of different health problems as a basis for priority setting in disease prevention, health promotion and for the development of health care services. It combines information about mortality and morbidity, thereby providing measures of burdens caused by disease, disability and death. A related term is Disability Adjusted Life Expectancy (DALE), which may be interpreted as the expectation of life lived in equivalent full health.

Some of the criticism has been the lack of demographic and epidemiological data in developing countries, and the use of aggregated data, which may disturb the focus on the poorer parts of the population. Also the social valuation of disease and disability will vary between cultures.

In spite of these and other weaknesses, both DALY and DALE provide an opportunity to compare data across countries and regions, but should probably only be used critically as additional information to other data.

## **6.9. Standard surveys providing information for poverty monitoring and analysis**

There are four major sources for data for poverty monitoring and analysis, as follows:

- Administrative data
- Standard quantitative surveys (incl. censuses)
- Ad hoc quantitative surveys
- Qualitative data collection

### **6.9.1. Administrative data**

Administrative records and data collection provide a large share of data for poverty monitoring and analysis. As already discussed there are standard for how to collect, categorize and present this information. Unfortunately there might be more than one standard, the countries may retain an old version of a standard, or apply their own standard, but with one important exemption administrative data are in general available according to international standard. The one important exemption is on government finance statistics where many countries apply accounting categories (salaries, equipment, maintenance etc.) rather than functional (primary school, secondary school, tertiary education etc.). Hence comparable administrative data will be available for most sector data, while functional sector data will be missing for many countries.

### 6.9.2. Standard quantitative surveys (incl. censuses)

There are four large institutional groups developing and supporting the implementation of standards quantitative surveys and censuses focusing on social sectors and poverty reduction, as follows:

- UNFPA; developing and supporting population censuses
- World Bank, developing and supporting household surveys for analysis and monitoring
- UNICEF, developing and supporting surveys on social issues including poverty
- USAID/ Macro International, supporting/ developing and implementing demographic and health surveys.

UNFPA has for several decades been more or less the sole technical supporter of population and housing censuses in developing countries. There are no official prototype census forms, but there is a strong tradition ensuring a standard set of variables and two standard forms, i.e. one core form and one extended form. The census form will all include household roster information, demographics, education, economic activity, health limited to fertility, mortality and disability and housing amenities.

Census information has a complete coverage and provides essential poverty related information at any level, but usually only every decade. There has been discussion on how to combine census and survey information. So far only Stats South Africa has really conducted such a combined analysis. By utilizing combined census and survey information they have presented detailed maps showing the distribution of poverty indicators at the very local level. One could imagine that the next step would be to combine such an analysis with administrative records showing equality or discrepancy in the geographical distribution of such as health and education service standard and use, outcome (achievements and status) and poverty. With the current developments in so-called small area statistics there are all reasons to expect this to become common. However at this stage such data are not commonly available.

World Bank has been a leading agency in developing poverty related household surveys for the last two decades. The Living Standard Measurement Study (LSMS) (Grootaert, C., 1986) surveys was developed and implemented from the end 1980s. Initially the LSMS surveys were close to the prototype version but over the years they have come to include large country specific modules while still maintaining the standardized and comparable information. The LSMS surveys were followed, but not replaced, by the Integrated Household Survey (IHS) (Delaine et al., 1991), the Priority Survey (PS) (Grootaert, C. & T. Marchant, 1991) and the Community Survey (CS). While LSMS, IHS and CS are designed to provide information for analysis, the PS was designed as a faster and lighter survey for monitoring purposes. Currently the World Bank has moved one step further towards monitoring instruments by developing a more dedicated monitoring survey instrument, the Core Welfare Indicators Questionnaires (CWIQ) (World Bank, 1999a) which also aims at measuring the use of public services and user satisfaction of these services. While LSMS surveys, IHSs and PSs linked to a household budget survey do provide information on incidence and distribution of poverty, a stand-alone PS only gives proxy indicators for poverty. Each of LSMS, IHS, and PS do contain the same type information as in a census but with more details and large modules on employment, agricultural production and other income generating activities. The CS will focus on available economic and social sector services and prices, but also social norms and traditions. A CWIQ will again include census type of information and as already stated information on use of public services and user satisfaction of these services. Prototype LSMS, IHS and PS are available in printed formats. The CWIQ is available both on paper and as CD-ROM. No CS prototype has been produced. It is also only implemented in fewer countries.

UNICEF has been supporting several types of survey initiative including a standard nationwide households survey called the Multiple Indicator Survey<sup>23</sup> (UNICEF, 1995). Another main focus has been on dedicated action oriented surveys such as food security surveys to monitor distribution and impact of food aid and drought relief.

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<sup>23</sup> <http://www.unicef.org/reseval/pdfs/mics.pdf>

USAID/ Institute for Resource Development, Macro international is the only bilateral agency with support to a survey program comprising a large range of countries. Following the tradition from the World Fertility Study and the phase I DHS, the current Demographic and Health Survey prototype, DHS-II (Macro International 1990 a & b), was developed already in 1990 and has been implemented in several round in a large number of countries. As the title indicates it focuses on demographics and health and provides information needed for this approach within the health sector.

### ***6.9.3. Ad hoc quantitative surveys***

Single surveys might of course be the first test of what could become a survey program. And most countries will implement dedicated surveys from time to time. However in some countries, ad hoc surveys are rather the rule of the game. This might be due to poor planning but more often due to lack of permanent funding hence the country and statistical office has to respond to donor funding and requirements. This is hardly an ideal situation and does not allow for proper monitoring.

### ***6.9.4. Qualitative data collection***

Over the last years collection of qualitative information has been more systematized in many countries, but there is still a long way to go before this type of information is available on a semi-regular basis allowing for systematic presentation.

## **7. Policy of International Agencies and Internationally Recommended Data Sets**

### **7.1. World Bank**

The World Bank is a major actor in our three areas of interest, policy work, reporting of indicators and methodological development. Policy work is coordinated from central units and implemented on a regional basis. Reporting of indicators is mainly done at a global level, but the Africa region has their own activities. Methodological work is done both at the global level and within the Africa region.

#### **7.1.1. Policy related work**

You would expect that the World Bank had a comprehensive policy to reduce poverty. In one sense they do have. They do their Public Expenditure Reviews where they try to trace the allocation of public funding to sectors and within sectors. Over the last 5 years they have conducted a remarkable large number of poverty policy documents at country level. The latter documents present the level and distribution of poverty and certainly quite some other information on differences between poor and non-poor.

The World Bank has established a tradition that their World Development Report focuses on poverty every ten year and hence again in 2000 (to be labeled 2000/2001). The main developments presented by the WDR are on the poverty concept and presentation of information across income groups, rather than on a policy analysis or on a causal analysis of why people are poor.

Hence, while the World Bank obviously is the leading agency on poverty, they still do not present an analysis of why poor people are losing out and hence they do not present a comprehensive pro-poor policy.

The global Data Development Group is however just starting to look into the issue of whether it is possible to trace the poverty impact of public and other resource allocations. This work is however at an early stage and they were not really committing themselves to a certain approach yet. It will however be essential to follow this work.

#### **7.1.2. Poverty Reporting**

The World Bank is clearly the leading agency to collect and disseminate poverty-related information. At country level they present both statistics and summary information from participatory approaches such as beneficiary assessments and participatory poverty analysis. At the regional level, the Africa region seems to be in front. They have a triple approach:

- the traditional paper presentation of statistics accompanied by internet presentation of some data,
- the Africa Live Database, and
- a database for metadata and micro-level data from household-surveys

The traditional statistics is more or less a copy of the global information and provides standard information including on poverty, but not the data needed to trace the poverty impact.

The Africa Live Database is a new and interesting approach. The idea is to build a system and capacity in all African countries to allow them to feed statistical information as it is produced into a country level database which then more or less automatically updates the Africa Live Database in Washington and then back to the countries. This is not a dynamic database but might turn very useful for two reasons, both due to increased speed in disseminating information but probably even more important because it will allow for and requires standardized data reporting. This is a very interesting approach to follow from our perspective and reflect on whether to copy or extend.

The more informal database for metadata and micro-level data from household-surveys is also a very interesting approach. They already have an impressive collection of micro-level data including a

number of NORAD partner-countries in Africa. The main feature is again the possibility to search in a meta-database, allowing you to look for certain variables of interest across countries and as time evolves also over time. A critical factor for non-Bank employees is of course whether the application for access to data works smoothly. Only experience will tell.

The data people in the Africa region is also looking at other options for easy accessible information, such as by scanning all statistical reports from independence and up to date for Mauritania. By retyping the list of content and tables and retaining the images of the other pages they have managed to strike a proper balance between low costs and the possibility to search on variables, concepts and years.

Poverty reporting at the global level has a different but again useful approach. Here the emphasis has been on the written annual statistical reports that over the last years have been upgraded in both content and presentation. As per date, the World Development Indicators report seems to be the most comprehensive statistical report presenting poverty related statistical variables rather than indicators.

As already mentioned there is however quite some activities just being launched. Another very interesting approach is to provide statistical information for the country level work such as for the Comprehensive Development Framework and the successor of the old Policy Framework Papers, i.e. the Poverty Reduction Strategy Papers, refer to next paragraph. These will over some time be developed for all HIPC (Heavily Indebted Poor Countries) countries. The Development Data Group in the World Bank promised to keep us updated on the work plan for the first half of 2000 and invite Norway to participate. We declared interest in participation in one African country such as either Uganda or Mozambique.

The social consequences of adjustment, the pressures from IMF and other agencies, along with the wish for debt relief has led to the development of Poverty Reduction Strategy Papers (PRSP). The PRSPs build upon the PFP approach led by IMF, but substantial changes are implemented. The PRSPs are now a collaborative and more open exercise to be led by the country itself and as the nametag says it will address poverty policy. Along with this the countries are asked to prepare strategies for more concrete indicators, which ideally should be uniform, but also country specific. A series of tool kits are currently being developed, among these on *education* (Deonne Filmer & Jeff Hammer), *health* (Adam Wagstaff & Dave Gwatkin) and social protection, but also on three core technical issues, namely *poverty analysis*, *import analysis* and on *participation* (?). *Water and sanitation* may be covered under *infrastructure*. The tool kits should be adding to policy and will be drafted by mid-January ([www.worldbank.org-poverty](http://www.worldbank.org-poverty)). PRSPs may be updated on regular basis, but this is not decided upon yet.

## 7.2. WHO

After the Alma Ata conference on PHC a number of similar conferences have taken place. The Riga conference (1988), convened by WHO, confirmed the Alma Ata strategy and underlined the importance of intensified social and political obligation, commitment and priority action to equity. The WHO conference in Sundsvall, Sweden, reiterated that health gains depend on social justice and equitable redistribution of resources internationally and nationally. Concern about under-resourced health services, inefficiency of systems and the unlikeliness of increasing public spending lead to an increased focus on cost-efficiency in health care. In 1999 WHO was reorganizing the agency, but still emphasized specific diseases such as malaria, tobacco, HIV/AIDS, polio, TB and preventable blindness.

### 7.2.1. World Health Report

The WHR 1998 presents an overview of the global health situation and trends from the 1950s to 2025. Results are based on an assessment carried out in 1997 using 1997 or latest available data. Since 1979, the member states of WHO have carried out monitoring and evaluation of the Alma Ata Strategy. The WHR 1999 -*Making a difference* challenges the international community to examine

the difference health can make in humanity's continuing progress. The report shows how the pursuit of lasting improvements in health, when supported by vision and leadership, can also secure considerable social and economic gains.

The data coverage varies for the different indicators in the short list presented in the report. In general, official statistics reported to WHO are incomplete, and are often not comparable among countries nor are they up to date. The report therefore uses “the best available and reasonably reliable data from all sources”. Sources include national reports, reports of all WHO offices and information from WHO collaborating centers, as well as personal communications.

The main source of estimates relating to *demographic indicators*, including life expectancy at birth, fertility and infant mortality as well as number of deaths and population by age, was the Population Division, Department of Economic and Social Information and Policy Analysis, United Nations (UNPD).

A number of statistical values such as the under-5 mortality rate were derived from those estimates, but *otherwise no attempt was made to refine figures taken from recognized sources*. Surveillance data for a number of diseases of major public concern are lacking. Using whatever reliable estimates available, diseases/conditions were assessed according to their effect on people’s health at different stages of life in order to provide an overview.

Least developed countries (LDCs) are defined according to the Committee for Development Planning, UN, and includes; (i) GDP per capita, (ii) augmented physical quality of life index (APQL), and (iii) economic diversification index (EDI). The statistics include the following headings: 1. Population and demography, 2. Health status, 3. Health care and environment, 4. Education, and 5. Economy

In the statistical annexes for WHR 1999 a list of basic data is presented for most countries. These are listed below along with the sources.

Total population (1)	Size (000), Annual growth rate (%)
Dependency ratio (1)	(per 100)
Total fertility (1)	
Infant mortality rate (1)	(per 1000)
Probability of dying (1)	(per 1 000) under age 5, between age 15 and 59
Maternal mortality ratio (2)	(per 100 000)
Life expectancy at birth (1)	(years) Males, Females
Average years of educ. (3)	for population aged 25+, Females, Male excess over females
Malnutrition (4)	Stunting among children under age 5 (%), Males, Females
GDP per capita	Adjusted for purch. power, in 1985 US\$, Ann. growth rate (%)
Children imm. against measles (5) (%)	
Health expenditures (6)	Total (% of GDP), Public (% of GDP), Public (% of total)

- UN dataset *World population prospects 1950 – 2050* (the 1998 revision), New York, UNPD, 1998
- Caution! Global best estimates for 1995 are under development, WHO
- Barro R, Lee JW. International measures of schooling years and schooling quality. *American economic review*, papers and proceedings, 1986, 2:218-223
- WHO *global database on child growth and malnutrition*.
- Department of vaccines and other biologicals, health technology and pharmaceuticals cluster, WHO
- Health, nutrition and population indicators: A statistical handbook, the World Bank, 1999

Sources: The World Health Report 1998 - *Life in the 21<sup>st</sup> Century, a Vision for All*, WHO 1998  
 The World Health Report 1999 – *Making a difference*, WHO 1999

**7.2.2. World Health Report 2000**

In the recent years the centrality of health in the efforts to achieve human development has been recognized. Health is seen both as a critical input to development and as an outcome of development,

as well as a fundamental human right with a value in itself. WHO has during the last years put focus on health systems, their capability and development.

Prior to World Health Report 2000 WHO has developed a Framework for Health System Performance Assessment. This presents an approach to deal with three problems of measurement in public health:

- Normative choices should be made explicit. Recommendations should be based on evidence rather than on ideology.
- When normative choices are made explicit, empirical measurement of informed preferences is the basis rather than arbitrary parameter value assignment.
- Rather extreme forms of cultural relativism that has hampered comparative analysis in public health.

The work presented by the WHR is really a first round and the reader should expect new and amended rounds over the years to come. Already at this stage we find the WHR approach very interesting, In fact WHR is clearly the international approach working along the same lines as planned for Basic Social Sector Data. As you would expect there are large differences. One is resource capacity. Another is that WHR focuses on composite indicators while Basic Policy Data plans to use straightforward measures supplemented by well-established indicators, which are easy to interpret for the professional user. The WHR 2000 still deserves attention since it is the only international approach that presents a chain, which could be said to express a potential causal chain from resources (expenditures) to performance of service and further to attainment of goals.

#### ***World Health Report 2000 - review***

The World Health Report 2000 gives the first presentation of country figures for a new list of measures and indicators. Another new feature is the inclusion of uncertainty intervals in the tables to communicate the fact that the presented figures are subject to errors, and based on assumptions and models.

	<i>Component</i>	<i>Measure</i>
ATTAINMENT OF GOALS	Health level	DALE
	Health distribution	Equality of child survival
	Responsiveness, level	Index
	Responsiveness, distribution	Index
	Fairness in financial contribution	Index
	Overall goal attainment	Composite Index
PERFORMANCE	On level of health	Actual DALE/Maximum DALE
	Overall health system performance	Actual Composite Index/Maximum Composite Index
EXPENDITURE		Health expenditure, % and per capita

#### **Summary measure on health**

A variety of such measures exist. They fall in two groups: 'Health expectancies' and 'health gaps'. Expectancies express the number of years an individual can expect to live with certain characteristics either from birth or from a given age, e.g. dementia-free life expectancy.

Health gaps express the differences between actual health and some stated norm or goal.

Health expectancies do not depend on the particular age structure of a population. They are relatively easy to explain, and measured in units that are meaningful to a non-technical audience.

Health gaps are usually expressed in absolute terms and are age-structure-dependent, and preferable for purposes that require causal attribution.

For the WHR 2000 the measure Disability-Adjusted Life Expectancy (DALE) was recommended. This measure incorporates premature mortality and non-fatal health outcome in a population and thus reflects the number of years that an individual born today would expect to live in full health.

Estimates for all member states were calculated applying a combination of health survey data, life tables and health state preferences. Substantial problems remain as self-reported instruments lack comparability both across populations and across time.

### **Health inequalities.**

Two families of measures are developed: Measures of inter-individual differences (IID) and measures of individual-mean differences (IMD). Three normative choices are implicit in the choice of an inequality measure:

- The choice between IID, being sensitive to the distribution of individuals in the range of observed values, and IMD that are more sensitive to the mean.
- Absolute or relative inequality?
- The weight given to the tails of the distribution.

In WHR2000 tables the expected survival time for children under age 5 years is chosen as variable, from which a composite index has been created. It is an IID-measure, partly relative and gives heavy weight to extreme values.

### **Responsiveness.**

The responsiveness of health systems refers to their ability to meet the legitimate expectations of populations for the non-health improving aspects of the system.

Responsiveness has seven components, grouped into two categories: 'Respect for persons' and 'client orientation'. The choice of a measure implies the decision on relative weight given to each of the two categories, and the weights attached to the more detailed components.

The measurement of outcome in the level of responsiveness was based on a survey of app. 2000 key informants in selected countries. Half of the informants were WHO staff, the other half were respondents from Internet.

Scores on each component, ranging from 0 to 10 were combined into a composite score.

### **Responsiveness inequalities**

The key informant surveys were also used for data collection on responsiveness distribution.

Household surveys are assumed to be the best means of collecting this kind of data, but responsiveness distribution indicators have not been available at an international level.

On the basis of the number of times the key informants cited a social group as facing worse responsiveness levels than average, intensity scores were calculated. Four groups were used: The poor, women, old persons and disadvantaged ethnic groups. An inequality score was constructed combining intensity scores and population percentages, crudely adjusted for obvious overlap between groups. The authors clearly put a warning flag that this index should be treated more as a qualitative categorization than a quantitative exercise.

For non-survey countries, regression methods were applied.

### **Fairness in financial contribution**

Included in the key informant survey was also a set of questions that aimed at eliciting preferences for the choice of indicator for fair financing. The preferred system was one where each household contributed an equal share of its disposable income, defined as income left over after expenditures on food (income above subsistence).

Health expenditure comprises out-of-pocket payments, insurance, but also income taxes, value added taxes and social security contributions. The index formula gives a heavy weight to households that have spent a large share of their permanent income above subsistence on health.

Analyses based on survey data were performed for 21 countries. For the remaining 170 member countries, estimates were based on covariates.

### **Composite measure of goal attainment**

WHO adopted the simplest form of a composite measure of overall health system attainment: A weighted sum of the previous measures of health, responsiveness and fairness of financial contribution.

Again, the key informant survey questionnaire included several questions about preferences on the relative weights of the five goals. In addition, the respondents were asked to rank the goals of the health system from least to most important. The following weights were derived on the five

components: 25 % on level of health, 25 % on distribution of health, 12,5 % on level of responsiveness, 12,5 % on distribution of responsiveness and 25 % on fairness in financial contribution. The relative importance attached to responsiveness and fairness in financial contribution was substantially higher than WHO expected to find.

### **Performance of health systems on level of health**

This measure intends to reflect the national health systems' efficiency in producing health. Performance on the level of health is defined as the ratio between actually achieved levels of health and the levels of health that could be achieved with the most efficient health system. Health is measured in terms of healthy life expectancy using DALE as the indicator. Econometric methods were used to decide maximum DALE for a given level of health expenditure and other non-health system factors (frontier production analysis).

The estimates seem to overestimate efficiency. The five highest ranked countries have efficiency indices above 0,97. It is not likely that they could only improve their systems by 3 %. Assumptions can be debated, for instance was it decided not to account for the presence of AIDS in the assessment of efficiency.

### **Overall health system performance**

An identical approach as for the level of health was applied. Again there is an implicit overestimation of efficiency in the model since the estimates assume that the best-performing country in the sample has an efficiency of 1. This is very unlikely to be the case, but at present the extent of overestimation is not known.

### **Health expenditure per capita**

National Health Accounts may be defined as an integrated set of cross-classifications aiming to measure health related activities and economic flows: Inputs, outputs and resource use, contributing to the enhancement of health status. Focus is on the levels and trends of expenditure (public and private), provision of goods and services, and sources of financing. The current developmental stage of WHO national health accounts leans more towards a measurement of the financing flows. Only one tenth of WHO countries have undertaken a financial synthesis respecting fully NHA standards. In order to accelerate the emergence of NHA in the rest, WHO provides a basic set of indicators for all member countries, referred to as NHA-2000. The figures for two thirds of the countries are based on periodic specialized international publications and one third is estimated based on varying degrees of information available.

Selected indicators are:

*In %:*

- Total expenditure on health, of GDP
- Public expenditure, of total expenditure on health
- Out-of-pocket expenditure, of total expenditure on health
- Tax-funded and other public expenditure, of public expenditure on health
- Social security expenditure, of public expenditure on health
- Public expenditure on health, of total public expenditure

*In US\$ per capita:*

- Total expenditure at official exchange rate
- Out-of-pocket expenditure at official exchange rate
- Total expenditure in international dollars
- Public expenditure in international dollars
- Out-of-pocket expenditure in international dollars

### 7.3. UNESCO

On their Web site UNESCO has introduced a set of indicators for the education sector. The web site gives access to a database with the following options:

- National education systems, inst., teaching staff and enrolment by level of education
- National education systems
- Institutions by level of education
- Teaching Staff by level of education and sex
- Pupils/students by level of education and sex
- Enrolment by level
- Pre-Primary
  - Pupils enrolled by sector and sex
- Primary
  - Pupils enrolled by sex
  - Pupils enrolled by grade and sex
  - Pupils enrolled by age and sex
  - Repeaters by grade and sex
  - New entrants by sex
- Secondary
  - Pupils enrolled by program orientation and sex
  - Pupils enrolled by grade (General education)
  - Pupils enrolled by age and sex
  - Repeaters grade and sex (General education)
- Tertiary
  - Students enrolled by sex
  - Students enrolled by ISCED level
  - Students enrolled by field of study
  - Graduates by sex
  - Graduates by ISCED level
- Public expenditure on education
- Total, current and capital educational expenditure
- Current expenditure by level of education
- Current expenditure on education by purpose
- Literacy
- Estimated number of illiterates by age.

Figures are to be requested on country/region x year level. The full data matrix is of course not available, and the coverage rate, obviously highly variable, is an open question.

#### 7.3.1. ADEA

The lack of availability of consistent and comprehensive information on the status of education in Africa, led to an initiative by the Association for the Development of Education in Africa (ADEA). In 1994 ADEA began to address this problem by sponsoring the compilation and dissemination of cross-country and country group comparative data sets. The data sets are updated and published every three years. Since the initiative was launched in 1994, three "Statistical Profiles of Education in Sub-Saharan Africa" have been published.

Furthermore, in 1995 ADEA sponsored the development of a Windows-based program (Statistical Profile of Education in Sub-Saharan Africa - SPESSA) allowing the electronic dissemination of the data sets. Data are compiled by the ADEA from UNESCO and World Bank sources and provide information on the principal features of educational development for forty-seven countries in the region.

### **7.3.2. SACMEQ**

SACMEQ - Southern Africa Consortium for Monitoring Educational Quality - was created in 1995 by Ministries of Education in fifteen countries in the region. This gave formal status to an ongoing work to establish long-term strategies for building the capacity of educational planners to monitor and evaluate basic education systems. The International Institute for Educational Planning in UNESCO (IIEP) agreed to join SACMEQ after receiving an invitation from the participating Ministries. SACMEQ's mission is to undertake integrated research and training activities that will expand opportunities for educational planners to gain the technical skills required to monitor, evaluate and compare the general conditions of schooling and the quality of basic education. Further to generate information that can be used by decision-makers to plan the quality of education.

Till now, two educational policy research projects have been carried out. SACMEQ I was conducted in seven countries, and set down agendas for government action on issues related to baseline indicators for educational inputs, the general conditions of schooling, equity assessments for human and material resource allocations, and the literacy level of Grade 6 students.

SACMEQ II was commenced in 1998 and will be completed in 2001. All fifteen countries participated in the initial phase of this project that implied testing of data collection procedures. The main data collection includes an assessment of the performance levels of students and their teachers in the areas of literacy and mathematics.

Several prestigious universities and associations have recognized the high quality of SACMEQ policy reports and associated research materials. The venture has so far been a success. Four critical features of the design and implementation of research and training programs have been identified that may explain this pleasant state.

- (i) A co-operative working style has been fostered that has enabled national research co-ordinators to work together as a team and to learn from each other. The same technical procedures have been employed across countries, and ensured that SACMEQ reports offer policy advice that can be applied within countries, across countries and at sub-regional levels.
- (ii) Decision-makers in participating MOE were consulted at two essential stages: Initially when defining a short list of high-priority policy concerns, and in the final phase where all policy suggestions were discussed and clarified prior to publication. These moves ensured that the research process gave decision-makers "what they asked for".
- (iii) A determination to apply the world's best research methodologies.
- (iv) The reporting of educational resource allocations used both "level" and "dispersion" information for administrative regions.

## **7.4. UNICEF**

### **7.4.1. Water, Environment and Sanitation Division (WES)**

Water and sanitation is seen as a *basic right*, thus also for the poor, and central to sustainable development. Currently the division separates water from sanitation, with an emphasis on the latter. There is also increased attention on communication methods, behavior and attitude, utilization, cost-sharing/cost-recovery, health impact etc. The division has a number of programs e.g. school sanitation, hygiene & education, urban sanitation etc. There are no universal indicators, but the division wishes to standardize the definition of "coverage" globally or regionally and improve monitoring systems to include *impact* and *process indicators* as well as coverage figures. The division collaborates with the World Bank Social Policy Group and UNDP. An informally suggested list of indicators is as follows: urban/rural, rich/poor, coverage by type of service e.g. pipe-water, tap water, hours per day, days per week, quality etc.

### **7.4.2. Health Division**

There are five major issues of concern to the division, and these are: 1) the decrease in immunization coverage in Africa, 2) the deteriorating health systems and decrease in donor interest is seen as a

major problem. Nevertheless, this has led to a global alliance between UNICEF, WHO and the World Bank, chaired by the latter. 3) HIV/AIDS, especially among adolescents in Sub-Saharan Africa, 4) and the support for own staff with regards to HIV/AIDS. The unit is also concerned with *developing key indicators* for the sector.

#### 7.4.3. Education Division

In the 70s UNICEF had a closer collaboration with UNESCO on basic education. In 1990 there was a world conference among the Education For All (EFA) partners, where the focus was on universal primary education, i.e. on access and gender equity. In the PARIS21 list this is only described as *literacy*. UNICEF has a new focus on 1) early childhood care and development, 2) access and quality, 3) assessment for developing education in Africa. There is an emphasis on cross-sectoral collaboration for a “child friendly school”. In education UNICEF relies on *UNESCO data* (UNESCO Institute of Statistics), which is considered to be of uneven quality and *on cluster surveys*. EFA assessment is also important and 18 core indicators have been developed with regards to this.

#### 7.4.4. Division of Evaluation, Policy and Planning (EPP)

There is a critique that the process of policy reform is too linear, i.e. the assumptions that the process from policy to impact are too simple (Rebecca Sutton, *The Policy Process: An Overview*, ODI March 1999). With regards to malnutrition there is a UNICEF database. UNICEF does not use UNESCO very much. There is also a common country assessment (CCA). For maternal mortality WHO/UNFPA are considered to provide a solid estimate. Otherwise, DHS surveys are essential, and UNICEF never takes figures face value, but manipulates the data.

#### 7.4.5. The State of the World's Children

The State of the World's Children 2000 readdresses the Convention on the Rights of the Child (1989) and the commitment for children and adolescents at the World Summit for Children (1990). The report calls for leadership to meet the challenges of the 21<sup>st</sup> century, especially in light of the HIV/AIDS situation.

In general the tables in this annual report are derived from many sources and thus will inevitably contain a wide range of data quality. Official government data received by the responsible United Nations agency have been used whenever possible. In the many cases where there are no reliable official figures, estimates made by the responsible UN agency have been used. Where such internationally standardized estimates do not exist, the tables draw on other sources, particularly data received from the appropriate UNICEF field office. Where possible, only comprehensive and representative national data have been used.

Data for *life expectancy, total fertility rate, crude birth rates, crude death rates*, etc. are part of the regular work on estimates and projections undertaken by United Nations Population Division (UNPD). These and other internationally produced estimates are revised periodically, which explains why some of the data will differ from those found in earlier UNICEF-publications. In addition, the statistical tables contain data from Multiple Indicator Cluster Surveys, carried out in 1995 and 1996 by more than 60 countries worldwide as a means of assessing the progress made for children in the context of the goals of the World Summit for Children.

The tables include nutrition, health, education, demographic indicators, economic indicators, women, rate of progress and basic indicators. In the list of *basic indicators* the following are included:

Under 5 mortality rate	(UNICEF, UNPD, UN St. Div.)
Infant mortality rate	(UNICEF, UNPD, UN St. Div.)
Total population	(UNPD)
Annual no. of births (1,000)	(UNPD)
Annual no. of deaths under 5	(UNPD)
GNP per capita	(World Bank)
Life expectancy at birth (years)	(UNPD)
Total adult literacy rate	(UNESCO)

Primary school enrolment ratio (gross)	(UNESCO)
% share of household income (lowest 40% and highest 20%)	(World Bank)

Sources: UNICEF, *The State of the World's Children 2000*  
UNICEF, *Strategies in Water and Environmental Sanitation*, 1995

## 7.5. UNDP/HDR

For more than two decades, the statistical activities of UNDP has focused on developing statistical indicators addressing overall human development. The history of the current indicators goes back to the Physical Quality of Life indicators developed around 1980. It was however the development of the Human Development Indicators around 1990 that brought UNDP back at the center again. The HDI was an answer to the World Bank focus of a monetary/ consumption oriented poverty measurement. The HDI has three important features. First, it focuses straight on human end goals rather than material resources or means to achieve the end goals. Second, as already stated, it is a multidimensional approach focusing on health/demography, education, and economic development. Third, for income, the contribution is given a reduced weight for extremes. Currently there are two important focuses in the HDR work. First there is an emphasis on capacity building for statistics by the national UNDP offices and national consultants, 120 countries has produced one or more national HDRs. Second, UNDP continues to develop additional indicators, including gender, poverty and this year human rights.

UNDP was one of the original institutions behind the IDGs and PARIS21. Up to end 2000 UNDP was still not very active and it was only in 2001 the organization really moved towards the front by launching the Millennium Development Goals, the MDGs. The MDGs are built upon the IDGs but take those further along three lines:

- The MDGs add one level to the IDGs and comprises 8 development goals, 18 development targets and 48 indicators.
- The MDGs add one goal addressing a "Global Partnership for Development". The focus is on donor support and the idea is to monitor several dimensions of both the level and composition of Official Development Assistance. It should be added that these indicators are to be monitored separately for the least developed countries, Africa, landlocked countries and small islands developing states. These indicators are already well designed to monitor the composition of the overall regional and global donor assistance and specific donor commitments. But is also has a potential to monitor total support from a single donor and overall support to a single recipient country.
- The MDGs further develop and add to most of the other dimensions of the IDGs as well. Some of these are of special interest in our perspective, as follows:
  - Hunger is included as a sub-dimension on poverty and measured as "proportion of population below minimum level of dietary energy consumption". The definition is operationally equal to extreme poverty and the presentation as a hunger indicator manages to link it to an absolute level still being comparative across countries. Hence it has a potential as an alternative to the one-PPP\$-a-day poverty line.
  - 2 x tub
  - 2 x malaria

The 48 indicators and 18 targets presented in annex 2 ([refer to http://www.un.org/News/Press/docs/2001/pi1380.doc.htm](http://www.un.org/News/Press/docs/2001/pi1380.doc.htm)) represent the following 8 dimensions:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability

## 8. Develop a global partnership for development

The MDG indicators reflect well the goals and targets and are in general well known indicators for which information is widely available. However some of the indicators are far from available at a general level. Some work is definitely needed to adjust and make consistent standards household surveys and these indicators. But if this is done, these indicators might turn out to be very useful for monitoring of poverty related issues.

UNDP has already started the work to apply the MDG approach at country level. However in this first round the main emphasis is on the following two issues:

- presenting trends and levels based upon available data and
- reviewing capacity for monitoring and analysis.

So far two country level reports are presented, one for Vietnam (United Nations Country Team/ Vietnam 2001) ([http://www.un.org.vn/undocs/IDT2001/IDT-MDG-Engl\(0720\).pdf](http://www.un.org.vn/undocs/IDT2001/IDT-MDG-Engl(0720).pdf)) and one for Tanzania (United Nations Country Team/ Tanzania 2001). Both reports manage well to utilize existing information and even to handle the presentation and utilization of quite similar but still distinctively different concepts and data providing a balanced mix of textual presentation and interpretation and of statistical data. One essential sub-component is on capacity building and one would assume that for the years to come, national teams would produce the reports. If so, it will be important to ensure a fully coordinated capacity building and production of reports for the MDG and the NORAD policy data approach presented in this report.

## 7.6. UNFPA

### 7.6.1. Technical Branch, Technical and Policy Division

This division develops strategies and guidelines for reproductive health, and provides technical support and suggests indicators. There are a number of initiatives in the field of population and reproductive health, among these the review of Cairo (ICPD) with documents on further steps, of which one is on indicators. About US\$ 1 million has been allocated for an interagency meeting aiming at identifying process indicators, particularly for safe motherhood. The September 99 report on the CCA initiative focuses on how to measure benchmarks. WHO suggests 17 indicators to measure reproductive health. On gender indicators there is a general agreement, whereas quality of care is more complex. The UNFPA work on indicators at country level, include Rainard Rosenbaum in Mexico, Rojello Fernandez Castilla in Peru, and some work in Chile. UNFPA is moving from log frame to a result based approach, and has established a Result Based Unit headed by Nicola Jones.

### 7.6.2. State of the World Population

The statistical tables in this year's State of World Population report give special attention to indicators that can help track progress in meeting the quantitative and qualitative goals of the International Conference on Population and Development (ICPD) in the areas of mortality reduction, access to education, and access to reproductive health services including family planning. Future reports will include different *process measures* when these become available, as ICPD follow-up efforts lead to improved monitoring systems.

Infant mortality rate (M/F*)		UNPD
Life expectancy at birth, M/F*		UNPD
Maternal mortality rate *		WHO, UNICEF, the World Bank
Gross primary enrolment ratios, M/F	UNESCO; <i>World Education Report</i>	
Gross secondary enrolment ratios, M/F	UNESCO; <i>World Education Report</i>	
Adult illiteracy, M/F*		UNESCO; <i>World Education Report</i>
% reaching grade 5 of primary education.		UNESCO; <i>World Education Report</i>
Contraceptive knowledge		UNPD
Births per 1,000 women aged 15-19	UNPD	
Contraceptive prevalence*	UNPD	
Total population 1999		UNPD

projected population 2025	UNPD
Average annual pop. growth rate	UNPD
% urban	UNPD
Urban growth rates	UNPD
Total fertility rate	UNPD
Births with skilled attendants*	WHO
Central govt. exp. on educ. and health.	World Bank
External assistance for population.	UNFPA
Under-5 mortality	UNPD
Per capita energy consumption.	World Bank
Access to safe water.	WHO/UNICEF
<i>Indicators for monitoring ICPD goals (incl. * above)</i>	
% of GDP at PHC w./3 or more integr. repr. health services dir./indir.	
% access to PHC.	
Under 5 mortality rate M/F	
Net primary school enrolment M/F	

### 7.6.3. Indicators for Population and Reproductive Health Programs

The approach in this document is the link between indicators and Log frame. It aims at measuring *activity* and *output* as program or project deliverables, and *purpose* and *goals* as reflecting changes in behavior and impact. The document classifies indicators in details, indicates purpose, data sources and frequency of collection, and finally relates these to international conference goals.

Sources: UNFPA, *Indicators for Population and Reproductive Health*, UNFPA Tech. and Policy Division, 1998  
UNFPA, *the State of the World Population 1999, 6 billion, a time for choices*

## 7.7. UN Population Division

The Population Division works closely with UN Statistical Division. The division is responsible for the publication “World Population Prospects”, and confirms that they do not take data face value, but smooth them before presenting them. They also publish manuals etc. for demographic estimation. They use the data from agencies like UNICEF and WHO for e.g. maternal mortality. They also claim that the World Bank uses UNPD figures. UNPD works closely with a number of universities such as LSE, LSHTM – Center for Population Studies, Princeton University – Population Studies Center, etc.

## 7.8. UN Statistical Division

UN Statistical Division has two main functions. First, they serve as a secretariat for the UN Statistical Commission and in this capacity they work to coordinate and develop global statistical standards. Second they collect, compile and disseminate statistical information from all UN member-states to the UN system at large. Both these functions are important from our perspective.

The UN Statistical Office does not revise the data they receive from the member states and hence their database is well designed to follow the changes within a country over time. Due to potentially different statistical methods or different applications of methods and standards they might however not be well suited for cross-country comparisons.

## 7.9. ECOSOC

ECOSOC has served an important facilitator role such as providing inputs to the series of UN led summits and conferences in the 90-ies. Policy reports from the summits, capacity building, impact on UN policies and interventions, monitoring progress, covers policy in countries. While the UN Statistical Commission is the agency to coordinate statistical methods and standards, ECOSOC will

use the information available as an input to develop a common global approach on policy issues. Obviously they can never achieve further common agreements than the member states allow. Focus in 1999: Poverty eradication, human resources, Sub-Saharan Africa. Collaborates with WB and national consultants

## **7.10. FAO**

Not planned for visit. They have embarked on a program to develop pro-poor policies and should be considered for further electronic cooperation and a visit on site.

## **7.11. IDB**

In addition to the central office in Washington DC, IDB has 3 regional offices as well as 26 country offices. With regards to data IDB currently reviews the databases available but also carries out their own household surveys (Section for Health and Education). The macro level data is generally based on ministry of finance data. Health surveys also cover the private sector. IDB is moving more towards reform issues and policy level. Increasingly there is a focus on the poor and is currently pushing countries in the region to develop Standard National Health Accounts by the year 2002. A total of 8 countries have developed this already. IDB carries out standardized burden of disease studies, and uses WHO 1999 data in doing so. A distinction is made between high and low income countries and in-country breakdown on poor/non-poor, sex, etc.

### **7.11.1. IDB databases**

IDB has developed databases, which are available on the web<sup>24</sup>. The databases include one on economic and social data disaggregated to country level. The social sector here includes education, health, population (Gini coefficients, poverty data) and vital statistics (mainly death rates). The sources of the data are stated for each data entry specifically, and include a number of different sources, from the national bureaus of statistics to IMF, the World Bank, PAHO, IDB and individual surveys. The data is still rather incomplete, but is in the process of being built up.

## **7.12. ILO**

Not included for the first phase.

## **7.13. IMF**

IMF has traditionally focused on economic statistics but has broadened the scope over the very last time. They are currently promoting a global data dissemination strategy comprising a General Data Dissemination Strategy and a specialized version for countries with a more developed statistical system. Since a plan for the implementation of the GDDS will become a precondition for future IMF credit-approval the content of this standard is essential. And this time around, the GDDS will include minimum requirements also for social statistics. At this stage the minimum standard is not fixed and IMF collaborates with the World Banks statistical teams working within the Africa region to develop these standards.

From our perspective the most important sub-dimensions of economic statistics are allocation of the governmental budgets, first between sectors/ line ministries and then within such as between primary, secondary and tertiary social services. We learned that IMF is still requesting for both the between and within sector allocations for social and health sectors from the member-states. But during the last 10 years this information has not been keyed in, compiled or disseminated. The IMF staff said it was

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<sup>24</sup> Source: [www.database.iadb.org](http://www.database.iadb.org)

unlikely that this information would be available from NORAD partner-countries but this might be worthwhile to check at a later stage.

IMF has been the main supporter of the old Policy Framework Papers (PFPs), which are now being replaced by Poverty Reduction Strategy Papers (PRSPs). Currently it looks as if the recipient government, the World Bank and IMF, develops the PRSPs trilaterally.

### 7.14. DFID

The organization is currently in the process of producing a number of consultation documents related to poverty and the various sectors. Two of these are already widely circulated for comments, namely the one “*Economic Well-being*” and “*Better Health for Poor People*”. These papers are related to the international development targets (IDT)<sup>25</sup>.

*Economic Well-being* focuses on the economic aspects of poverty reduction and sets out a strategy for achieving increased economic well-being for poor people. The indicator is the proportion of people living below a dollar a day, and the goal is reduction from ¼ to 1/8 of the world’s population by the year 2015. The core message of the paper is that the livelihoods of poor people must be at the center of any strategy for poverty reduction, and that growth is essential to this. The \$1/day is adjusted for national differences in purchasing power, which requires national household expenditure/consumption surveys and international price comparison surveys used to establish purchasing power parities between countries. Primary responsibility for compiling these data at the global level rests with the World Bank, based on nationally produced data. The Bank is committed to produce three-yearly estimates. The need to strengthen capacity to collect and analyze economic data is stressed. Potential indicators include:

- Taxation incidence
- Budget deficit
- Employment ratios
- Social sector spending
- Military expenditure
- Domestic and external debt
- Trade openness
- Gross domestic fixed investments
- Gross national savings
- Population growth

The other Target Strategy Paper, *Better Health for Poor People*, also bases its analysis and strategies on the IDTs<sup>26</sup>. The strategic choices stated are the balance between bilateral and multilateral aid, the country focus in the bilateral programs, and the focus on the 20% poorest. This can only be done through partnership with other international agencies and coordinated action, set international standards, share statistics, new mechanisms for international collaboration (SWAP, UN reforms, UNDAF and CDF). The indicators are:

- Infant mortality rate
- Under 5 mortality rate
- Maternal mortality rate
- Births attended by skilled personnel

<sup>25</sup> Reducing by one half the proportion of people living in extreme poverty by 2015 etc., and the related indicators.

<sup>26</sup>

- (1) 2/3 reduction in IMR and U5MR by 2015
- (2) ¾ reduction in MMR by 2015
- (3) Universal access to reproductive health services by 2015
- (4) 25% red. in HIV among 15-24 year-olds in worse affected countries by 2005, and globally by 2010

- |  |
|--|
| <ul style="list-style-type: none"><li>▪ Contraceptive prevalence</li><li>▪ HIV prevalence in 15-24 year old pregnant women</li></ul> |
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Sources: DFID, International Development Target Strategy Paper, Better Health for Poor People, consultation document, Nov. 1999

DFID, International Development Target Strategy Paper, Economic Well-being, consultation document, Nov. 1999

## **7.15. SIDA**

SIDA is currently supporting development and testing of a user satisfaction survey. This is a semi-fast survey, which will tell you whether the population surveyed is satisfied with the service provided and their overall situation. This approach originates from Consumer Satisfaction surveys in the 1960s but has since then a long story including being used for Public service satisfaction surveys in developed countries in the 1970s and applied for quality of life survey at the same time. This survey gives you a fast overview of the current priorities and service satisfaction of the population. It might however be quite biased towards short-term problems and it should be stressed that this survey is supplementary to factual description of the current and past situation.

## **7.16. Summary of Responsibilities**

Primary responsibility for compiling poverty data at the global level rests with the World Bank, based on nationally produced data. The Bank is committed to produce three-yearly estimates. IMF and the World Bank support the development of Poverty Reduction Strategy Papers (PRSPs) at the country level. The World Bank is also responsible for compiling information on the economic well-being indicators of poverty gap and inequality of consumption, which again are based on poverty national household income and consumption surveys.

Information on child malnutrition is collected by UNICEF and WHO, and is based on a wide range of information provided by national MOH. The OECD/DAC is committed to disseminate information on all the IDT indicators through their Web-site and by other means.

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# Appendix 1 - Measuring Development Progress: a Working Set of Core Indicators - International Development Goals

## GOALS

## INDICATORS

### Economic well-being

#### Reducing extreme poverty

The proportion of people living in extreme poverty in developing countries should be reduced by at least one-half by 2015. *(Copenhagen)*

1. Incidence of Extreme Poverty: Population Below \$1 Per Day
2. Poverty Gap Ratio: Incidence times Depth of Poverty
3. Inequality: Poorest Fifth's Share of National Consumption
4. Child Malnutrition: Prevalence of Underweight Under 5s

### Social development

#### Universal primary education

There should be universal primary education in all countries by 2015. *(Jomtien. Beijing. Copenhagen)*

5. Net Enrolment in Primary Education
6. Completion of 4th Grade of Primary Education
7. Literacy Rate of 15 to 24 Year-Olds

#### Gender equality

Progress towards gender equality and the empowerment of women should be demonstrated by eliminating gender disparity in primary and secondary education by 2005. *(Cairo. Beijing. Copenhagen)*

8. Ratio of Girls to Boys in Primary & Secondary Education
9. Ratio of Literate Females to Males (15 to 24 Year-Olds)

#### Infant & child mortality

The death rates for infants and children under the age of five years should be reduced in each developing country to two-thirds the 1990 level by 2015. *(Cairo)*

10. Infant Mortality Rate
11. Under 5 Mortality Rate

#### Maternal mortality

The rate of maternal mortality should be reduced by three-fourths between 1990 and 2015. *(Cairo. Beijing)*

12. Maternal Mortality Ratio
13. Births Attended by Skilled Health Personnel

#### Reproductive health

Access should be available through the primary health-care system to reproductive health services for all individuals of appropriate ages, no later than the year 2015. *(Cairo)*

14. Contraceptive Prevalence Rate
15. HIV Prevalence in 15 to 24 Year-Old Pregnant Women

### Environmental sustainability & regeneration

#### Environment

There should be a current national strategy for sustainable development, in the process of implementation, in every country by 2005, so as to ensure that current trends in the loss of environmental resources are effectively reversed at both global and national levels by 2015. *(Rio)*

16. Countries with National Sustainable Development Strategies
17. Population with Access to Safe Water
18. Intensity of Freshwater Use
19. Biodiversity: Land Area Protected
20. Energy Efficiency: GDP per Unit of Energy Use

#### Emissions

21. Carbon Dioxide

### General

#### Indicators

#### Other selected indicators of development

For reference:	Population	GNP per Capita	Aid as % of GNP
	Gross National Product	Adult Literacy Rate	External Debt as % of GNP
		Total Fertility Rate	Investment as % of GDP
		Life Expectancy at Birth	Trade as % of GDP

This list is neither exclusive nor comprehensive and some elements (e.g. environment) remain under discussion. It reflects progress to date in identifying core indicators that are relevant to the development goals selected from the series of UN Conferences held in the 1990s, and which now form a wide consensus on development priorities. The goals were selected because they were important in their own right and as meaningful proxies for broader development goals. The selection does not imply any diminished commitment to other goals accepted by the international community, at international conferences or elsewhere. The list reinforces other indicator initiatives, such as the Minimum National Social Data Set of the United Nations Statistics Division, and the General Data Dissemination System of the IMF.

## Appendix 2 - Millennium Development Goals (MDGs)

### Goals and targets

### Indicators

#### Goal 1. Eradicate extreme poverty and hunger

- Target 1.** Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day
- Target 2.** Halve, between 1990 and 2015, the proportion of people who suffer from hunger
1. Proportion of population below \$1 per day
  2. Poverty gap ratio (incidence x depth of poverty)
  3. Share of poorest quintile in national consumption
  4. Prevalence of underweight children (under five years of age)
  5. Proportion of population below minimum level of dietary energy consumption

#### Goal 2. Achieve universal primary education

- Target 3.** Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
6. Net enrolment ratio in primary education
  7. Proportion of pupils starting grade 1 who reach grade 5
  8. Literacy rate of 15-24-year olds

#### Goal 3. Promote gender equality and empower women

- Target 4.** Eliminate gender disparity in primary and secondary education, preferably by 2005, and to all levels of education no later than 2015
9. Ratio of girls to boys in primary, secondary and tertiary education
  10. Ratio of literate females to males of 15-to-24-year-olds
  11. Share of women in wage employment in the non-agricultural sector
  12. Proportion of seats held by women in national parliament

#### Goal 4. Reduce child mortality

- Target 5.** Reduce by two thirds, between 1990 and 2015, the under-five mortality rate
13. Under-five mortality rate
  14. Infant mortality rate
  15. Proportion of 1-year-old children immunized against measles

#### Goal 5. Improve maternal health

- Target 6.** Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
16. Maternal mortality ratio
  17. Proportion of births attended by skilled health personnel

#### Goal 6. Combat HIV/AIDS, malaria and other diseases

- Target 7.** Have halted by 2015 and begun to reverse the spread of HIV/AIDS
- Target 8.** Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases
18. HIV prevalence among 15-to-24-year-old pregnant women
  19. Contraceptive prevalence rate
  20. Number of children orphaned by HIV/AIDS
  21. Prevalence and death rates associated with malaria
  22. Proportion of population in malaria risk areas using effective malaria prevention and treatment measures
  23. Prevalence and death rates associated with tuberculosis
  24. Proportion of tuberculosis cases detected and cured under directly observed treatment short course

#### Goal 7. Ensure environmental sustainability<sup>a</sup>

- Target 9.** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
- Target 10.** Halve by 2015 the proportion of people without sustainable access to safe drinking water
- Target 11.** By 2020 to have achieved a significant improvement in the lives of at least 100 million slum dwellers
25. Proportion of land area covered by forest
  26. Land area protected to maintain biological diversity
  27. GDP per unit of energy use (as proxy for energy efficiency)
  28. Carbon dioxide emissions (per capita)  
(Plus two figures of global atmospheric pollution: ozone depletion and the accumulation of global warming gases)
  29. Proportion of population with sustainable access to an improved water source
  30. Proportion of people with access to improved sanitation
  31. Proportion of people with access to secure tenure  
(Urban/rural disaggregation of several of the above indicators may be relevant for monitoring improvement in the lives of slum dwellers)

## Goal 8. Develop a Global Partnership for Development<sup>a</sup>

<b>Target 12.</b> Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (Includes a commitment to good governance, development, and poverty reduction — both nationally and internationally)	[Some of the indicators listed below will be monitored separately for the least developed countries (LDCs), Africa, landlocked countries and small island developing States] Official development assistance 32. Net ODA as percentage of OECD/DAC donors' gross national income (targets of 0.7 per cent% in total and 0.15 per cent for LDCs)
<b>Target 13.</b> Address the Special Needs of the Least Developed Countries (Includes: tariff and quota free access for least developed countries' exports; enhanced programme of debt relief for HIPCs and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction)	33. Proportion of ODA to basic social services (basic education, primary health care, nutrition, safe water and sanitation) 34. Proportion of ODA that is untied 35. Proportion of ODA for environment in small island developing States 36. Proportion of ODA for transport sector in landlocked countries
<b>Target 14.</b> Address the special needs of landlocked countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	Market access 37. Proportion of exports (by value and excluding arms) admitted free of duties and quotas 38. Average tariffs and quotas on agricultural products and textiles and clothing 39. Domestic and export agricultural subsidies in OECD countries 40. Proportion of ODA provided to help build trade capacity
<b>Target 15.</b> Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Debt sustainability 41. Proportion of official bilateral HIPC debt cancelled 42. Debt service as a percentage of exports of goods and services 43. Proportion of ODA provided as debt relief 44. Number of countries reaching HIPC decision and completion points
<b>Target 16.</b> In cooperation with developing countries, develop and implement strategies for decent and productive work for youth	45. Unemployment rate of 15-to-24-year-olds
<b>Target 17.</b> In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	46. Proportion of population with access to affordable essential drugs on a sustainable basis
<b>Target 18.</b> In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	47. Telephone lines per 1,000 people 48. Personal computers per 1,000 people [Other indicators to be decided]

<sup>a</sup> The selection of indicators for goals 7 and 8 is subject to further refinement.

## Appendix 3 - Indicators for a Core Set of Health Interventions

Accessibility		Specification	19 _ _
<b>Physical access Nationally</b>	<b>Are the health services in general and the basic health package in particular accessible to the population?</b>	Urban/rural	/
	Total number of health centers per 100,000 population	"	/
	Number of doctors per 100,000 population	"	/
	Number of medical assistants per 100,000 population	"	/
	Number of nurses per 100,000 population	"	/
	Proportion of population within 5/10/15 km from a fixed health center	"	/
	Proportion of population within 5 km from a health post/mobile clinic/HC	"	/
	Proportion of population within 5 km to basic health package	"	/
	Proportion of population with access to safe water	"	/
	Special conditions affecting access in the district or in sub-districts	"	/
<b>Lowest income quintile</b>	<b>Are the health services in general and the basic health package in particular accessible to the poor?</b>		
	Proportion of population within 5/10/15 km from a fixed health center	"	/
	Proportion of population within 5 km from a health post/mobile clinic/HC	"	/
	Proportion of population within 5 km to basic health package	"	/
	Proportion of population with access to safe water	"	/
<b>Sub-districts with particularly low...:</b>	<b>Are there any sub-districts/areas with particularly poor accessibility to basic health services or resources for health care?</b>		
	Total number of health centers per 100,000 population	Sub-district:	/
	Number of doctors per 100,000 population	"	/
	Number of medical assistants per 100,000 population	"	/
	Number of nurses per 100,000 population	"	/
	Proportion of population within 5/10/15 km from a fixed health center	"	/
	Proportion of population within 5 km from a health post/mobile clinic/HC	"	/
	Proportion of population within 5 km to basic health package	"	/
	Proportion of population with access to safe water	"	/
<b>Technical efficiency</b>	<b>Are the activities carried out without wastage of inputs and at the minimum possible costs?</b>	"	/
	What is the total no. of drugs per prescription?	"	/
	What is the % of prescriptions that include injections?	"	/
	What is the % staff costs (salaries etc.) of total costs?	"	/
	What is the total no. of patients per provider/staff?	"	/
	What is the absenteeism rate in the unit?	"	/
	What are the average costs per intervention/activity? a), b), c), d)	"	/
	What staff are only used for certain interventions/activities where there is slack?	"	/
	What is the shortage/excess?	"	/
	What is the shortage/excess of health units?	"	/
<b>Utilization of basic package</b>	<b>Is the utilization of the basic package adequate?</b>		
Total coverage	What is the total coverage of different parts of basic package? a), b), c), d), e)	"	/
Geographical utilization	Sub-districts/areas with particularly high or low utilization/coverage? a), b), c), d), e)	<b>High</b>	<b>Low</b>
Urban/rural	What is the urban/rural utilization of the different services? a), b), c), d), e)	<b>Urban</b>	<b>Rural</b>
Lowest/highest income quintiles	What is the low income and high-income utilization of the different interventions? a), b), c), d), e)	<b>Lowest quintile</b>	<b>Highest quintile</b>

## Appendix 4 - Education - Recommended and suggested indicators

### PARIS21, OECD-UN-World Bank

#### *Indicators on Universal primary education:*

##### Use:

- 5. Net Enrolment in Primary Education

##### Outcome:

- 6. Completion of 4<sup>th</sup> Grade of Primary Education
- 7. Literacy rate of 15 to 24 Year-Olds

#### *Indicators on Gender equality:*

##### Use:

- 8. Ratio of Girls to Boys in Primary and Secondary Education

##### Outcome:

- 9. Ratio of Literate Females to Males (15 to 24 Year-Olds)

#### *General indicators:*

##### Outcome

- Adult literacy rate

### Education for All Year 2000 Assessment

An interagency Technical Advisory Group (UNDP, UNESCO, UNFPA, UNICEF, WB) selected 18 core EFA indicators. Originally 47 indicators were proposed, but the number reduced because of concerns about the reporting burden.

#### **Expenditure:**

- 7. Public current expenditure on primary education a) as a percentage of GNP; and b) per pupil, as a percentage of GNP per capita
- 8. Public expenditure on primary education as a percentage of total public expenditure on education

#### **Quality:**

- 9. Percentage of primary school teachers having the required academic qualifications
- 10. Percentage of primary school teachers who are certified to teach according to national standards
- 11. Pupil-teacher ratio

#### **Use:**

- 1. Gross enrolment in early childhood development programs, age-group 3 to 5 unless something else applies
- 2. Percentage of new entrants to primary grade 1 who have attended some form of early childhood dev. program
- 3. Apparent (gross) intake rate in primary grade 1- percentage of the pop. of official entry age
- 4. Net intake rate: New entrants of the official primary school entrance age as a percentage of the corresponding population
- 5. Gross enrolment ratio
- 6. Net enrolment ratio

#### **Outcome:**

- 12. Repetition rates by grade
- 13. Survival rate to grade 5 (percentage of a pupil cohort actually reaching grade 5)
- 14. Coefficient of efficiency (ideal number of pupil- years needed for a cohort to complete the primary cycle, expressed as a percentage of the actual number of pupil-years)
- 15. Percentage of pupils having reached at least grade 4 who master a set of nationally defined basic learning competencies
- 16. Literacy rates of 15-24 year olds
- 17. Adult literacy rate: Percentage of the pop. aged 15+ that is literate
- 18. Literacy Gender Parity Index: ratio of female to male literacy rates

## **United Nations Statistics Division: Minimum National Social Data Set (MNSDS)**

### **Additional variable on Outcome:**

- Average numbers of years of schooling completed

## **United Nations Development Assistance Framework - common country assessment (UNDAF-CCA)**

### **Additional variables**

#### **Use:**

- Net primary enrolment ratio

#### **Outcome:**

- Adult literacy rate
- Percentage reaching grade 5/completion of grade 4
- Literacy rate of persons aged 15-24

## **Basic Social Services for All (BSSA)**

### **Additional variable on Outcome:**

- Adult literacy rate

## **World Education Indicator program**

UNESCO in partnership with concerned agencies and Member States

One objective is to

...establish a core set of policy-relevant and internationally comparable World Education Indicators together with methodological and quality standards, and to promote its world-wide production and dissemination

### **a) World Education Indicators on Internet and CD-rom**

A somewhat different categorization of indicators:

#### **Resources input:**

- Pupil-teacher ratio by level or type of education
- Percentage of female teachers
- Percentage of teaching staff in private educational institutions
- Public expenditure on education as percentage of GNP
- Public expenditure on education as percentage of total government expenditure
- Public current expenditure on education as percentage of total expenditure on education
- Teachers' emoluments as percentage of public current expenditure
- Percentage distribution of public current expenditure by level of education
- Public current expenditure per pupil (student) as percentage of GNP per capita

#### **Access, participation:**

- Apparent intake rate in primary education
- Transition from primary to secondary education
- Gross enrolment ratio by level of education
- Net enrolment ratio by level of education
- Age-specific enrolment ratios
- Enrolment in secondary education by type of education
- Number of students in tertiary education per 100000 inhabitants
- Percentage of students in tertiary education by ISCED level
- Percentage of female students in each ISCED level of tertiary education
- Students in tertiary education by ISCED fields of education
- Percentage of private enrolment
- School-life expectancy: Expected number of years of formal schooling

### **Internal efficiency**

- Percentage of repeaters
- Repetition rates
- Survival rates by grade
- Coefficient of efficiency
- Year input per graduate

### **Output**

- Percentage distribution of graduates from tertiary education by ISCED fields of education

### **Learning outcome**

- Literacy rate of population 15-24 years old

### **Outcome/impact**

- Adult literacy rate
- Educational attainment

### **Quality**

- Pupil-teacher ratio by level or type of education

### **Disparities**

- Percentage of female teachers
- Percentage of female students in each ISCED level of tertiary education
- Percentage of teaching staff in private educational institutions
- Percentage of private enrolment

## **b) UNESCO/OECD: World Education Indicator Pilot Project**

Launched in 1997 to extend OECD-INES experience to 13 + 4 non-OECD countries

### **Participation in education**

P1.1. Number of students in public and private education per 100 persons in the pop. aged 5 to 29

P1.2. Distribution of students by type of institution and by mode of enrolment

P2.1. Expected years of schooling for a five year old child

P3.1 Enrolment rates in public and private institutions by age

P4.1 Net entry rates for lower secondary, upper secondary and tertiary level of ed. by gender and mode of participation

P5.1 Transition characteristics at each year of age from 15 to 20: net enrolment rates by level of ed. in public and private institutions

P6.1 Lower secondary ed. graduation rates at typical ages of graduation

P6.2 Upper secondary ed. graduation rates at typical ages of graduation

P7.1 Student enrolment as a percentage of the employed population

### **Repetition rates**

R1.1 repetition rates

### **Teachers and other educational personnel**

T1.1 Teaching staff in public and private institutions as a percentage of the total employed pop.

T1.2 Part-time teachers in public and private institutions as percentage of all teaching staff by level of ed.

T2.1 Educational, administrative or professional support personnel

T3.1 Women as a percentage of teaching staff in public and private institutions by level of ed.

T4.1 Teachers' annual gross salaries in public institutions in PPP US\$

T4.2 Teachers' annual gross salaries in government dependent private institutions in PPP US\$

T4.3 Teachers' annual gross salaries in independent private institutions in PPP US\$

T5.1 Additional bonus as a percentage of gross salary for teachers in public institutions

T5.2 Additional bonus as a percentage of gross salary for teachers in government dependent private institutions

T5.3 Additional bonus as a percentage of gross salary for teachers in independent private institutions

### **Classroom practices**

- C1.1 Ratio of students to teaching staff by level of education (calculation based on full-time equivalents)
- C2.1 Ratio of students to teaching staff of pre-primary, primary, secondary and tertiary level of education relative to student/teaching staff ratio at the primary level
- C3.1 Total intended instruction time for students in lower secondary education in hours per year
- C4.1 Intended instruction time for major subject areas as a percentage of total intended instruction time at lower secondary level

### **Educational finance**

- F1.1 Educational expenditure as a percentage of GDP for all levels of education combined, by source of funds
- F2.1 Public educational expenditure as a percentage of total public expenditure
- F2.2 Direct expenditure for institutions and transfers to the private sector as a percentage of total government expenditure. Tertiary level of education combined
- F2.3 Distribution of public and private sources of initial funds for educational institutions
- F2.4 Percentage of all public expenditure for educational institutions for public institutions, government dependent private institutions, independent private institutions
- F4.1 Expenditure on educational services per student in public and private institutions by level of education in PPP converted US\$
- F5.1 Educational expenditure by level of education, resource category for public and private institutions

## Appendix 5 - IMF: General Data Dissemination System (GDDS)

### The Data Dimension of the GDDS

#### A. Comprehensive Frameworks

Core frameworks	Coverage, classification, and analytical framework	Encouraged extensions	Periodicity <sup>1/</sup>	Timeliness
National accounts	Producing and disseminating the full range of national accounts aggregates and balancing items in nominal and real terms, yielding gross domestic product, gross national income, gross disposable income, consumption, saving, capital formation, and net lending/borrowing. Producing and disseminating sectoral accounts and national and sectoral balance sheets as relevant.		Annual	10-14 months
Central government operations	Producing and disseminating comprehensive data on transactions and debt, emphasizing: (1) coverage of all central government units; (2) use of appropriate analytical framework; and (3) development of a full range of detailed classifications (tax and nontax revenue, current and capital expenditure, domestic and foreign financing) with breakdowns (debt holder, instrument, currency), as relevant.	General government or public sector operations data, strongly encouraged where subnational levels of government or public enterprise operations are of analytical or policy importance.	Annual	6-9 months
Broad money survey	Producing and disseminating comprehensive data emphasizing: (1) coverage of all depository corporations (banking institutions), (2) use of an appropriate analytical framework; and (3) development of classifications of external assets and liabilities, domestic credit by sector, and components of money (liquidity) and nonmonetary liabilities.		Monthly	2-3 months
Balance of payments	Producing and disseminating comprehensive data on the main aggregates and balancing items of the balance of payments, including e.g. imports and exports of goods and services, trade balance, income and transfers, current account balance, reserves and other financial transactions, and overall balance, with detailed components as relevant.	International Investment Position (IIP)	Annual	6-9 months

1/ The GDDS should be viewed as encouraging improvements over time in the periodicity and timeliness of data dissemination that are consistent with improvements in data quality. Objectives for timeliness are set out in terms of ranges of time in recognition of the diversity of countries covered by the GDDS.

## Appendix 6 - Acronyms and Abbreviations

ADEA	Association for the Development of Education in Africa
AIDS	Acquired ImmunoDeficiency Syndrome
APQL	Augmented Physical Quality of Life index
BCG	Bacillus Calmette-Guérin (Tuberculosis vaccine)
BSSA	Basic Social Services for All
CD-ROM	Compact Disc Read-Only-Memory
CDF	Comprehensive Development Framework
CPI	Consumer Price Index
CRC	UN Convention on the Rights of the Child
CS	Community Survey
CSD	UN Commission on Sustainable Development Indicators
CWIQ	Core Welfare Indicator Survey
DALE	Disability Adjusted Life Expectancy
DALY	Disability Adjusted Life expectancy in Years
DFID	Department of International Development (UK)
DHS	Demographic and Health Survey
DPT3	Diphtheria, Pertussis, and Tetanus vaccination
ECOSOC	UN Economic and Social Commission
EDI	Economic Diversification Index
EFA	Education For All
EPI	Epidemiology Information
FAO	Food and Agricultural Organization (of UN)
GBD	Global Burden of Disease
GDDS	General Data Dissemination Standard
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
GNI	Gross National Income
GNP	Gross National Product
HDI	Human Development Index
HDR	Human Development Report
HIPC	Heavily Indebted Poor Countries
HIV	Human Immunodeficiency Virus
HNP	Health National Plan
ICPD	International Conference of Population and Development
IDB	Inter-American Development Bank
IDG	International Development Goals
IDT	International Development Targets
IEC	Community Information, Education, Communication
IHS	Integrated Household Survey
IID	Inter-Individual Differences
IIEP	The International Institute of Education Planning
IMD	Individual Mean Differences
IMF	The International Monetary Fund
iPRSP	Interim Poverty Reduction Strategy Paper
ISCED	International Standard Classification of Education
LSE	London School of Economics
LSHTM	London School of Hygiene and Tropical Medicine
LSMS	Living Standard Measurement Study
MCH	Mother and Child Health Care
MCH/FP	Mother and Child Care/ Family Planning
MDG	Millennium Development Goals and indicators
MFA	Ministry of Foreign Affairs

MMR	Measles, Mumps, Rubella
MNSDS	Minimum National Social Data Set
MOE	Ministry of Education
MOH/MIDHR	Ministry of Health/ Ministry of International Development and Human Rights
NER	Net Enrollment Ratio
NGO	Non-Governmental Organizations
NHA	National Health Accounts
NORAD	Norwegian Agency for Development Cooperation
OECD	Organization for Economic Cooperation and Development
OECD/DAC	OECD/ Development Assistance Committee
P <sub>0</sub>	Poverty headcount
P <sub>1</sub>	Poverty gap
P <sub>2</sub>	Poverty intensity
PARIS21	PARtnership In Statistics in the 21 <sup>st</sup> Century
PFP	Policy Framework Paper
PHC	Primary Health Care
PPP\$	Purchasing Power Parity
PRSP	Poverty Reduction Strategy Paper
PS	Priority Survey
RH	Rural Health
SACMEQ	Southern Africa Consortium for Monitoring Educational Quality
SDDS	Special Data Dissemination Standard
SIDA	Swedish Agency for Development Cooperation
SNA	System of National Accounts
SOSIT	SOcial Sector IniTiative (NORAD)
SPESSA	Statistical Profile of Education in Sub-Saharan Africa
STD	Sexual Transmitted Diseases
SWAP	Sector Wide Assistance Program
TB	Tuberculosis
U5MR	Children under 5 years Mortality Rate
UN	United Nations
UNDAF	UN Development Action Frame
UNDAF/CCA	UNDAF Common Country Assistance
UNDP	United Nations Development Program
UNESCO	UN Educational Scientific and Cultural Organization
UNFPA	UN Family Planning Association
UNICEF	UN Children's Fund
UNPD	UN Population Division
USAID	United States Agency for International Development
WDI	World Development Indicators
WDR	World Development Report
WEI	World Education Indicators
WES	Water, Environment and Sanitation Division of UNICEF
WHO	World Health Organization
WHR	World Health Report

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