A PUBLIC EXPENDITURE REVIEW OF THE HEALTH AND POPULATION SECTORS

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Glossary of Abbreviations

PHC	Primary Health Care
NRR	Net Replacement Rate
GOB	Government of Bangladesh
PER	Public Expenditure Review
ADP	Annual Development Plan
TFR	Total Fertility Rate
HEU	Health Economics Unit
TAP	Technical Advisory Panel
NGO	Non-Governmental Organisation
MOHFW	Ministry of Health and Family Welfare
MOF	Ministry of Finance
MCH	Maternal and Child Welfare
HFA	Health For All
CDR	Crude Death Rate
CBR	Crude Birth Rate
IMR	Infant Mortality Rate
MMR	Maternal Mortality Rate
EPI	Expanded Programme of Immunisation
PP	Project Proforma
TAPP	Technical Assistance Project Proforma
CPR	Contraceptive Prevalence Rate
GDP	Gross Domestic Product

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Executive Summary

As the preparatory process for the 5th Population and Health Project gets underway, it is vital that the Government of Bangladesh and its foreign development partners draw lessons from the past. Planning for the future requires a careful review of historical expenditure patterns and their contribution to sector goals. A substantial amount of resources has been targeted to the health and population sectors over the past ten years. Indeed, the proportion of GDP allocated to the health and population sectors more than doubled between 1985/86 and 1994/95 and per capita expenditure has grown sharply, see Table I. It is important to evaluate the impact of this increase and it is the role of this Public Expenditure Review (PER) to perform just such an analysis. By comparing progress towards key goals with public expenditure trends this study can emphasise the strengths and weaknesses of current strategies. It is hoped that this will guide policy makers and planners in their future investment decisions.

The PER is divided into five sections. After a brief introduction, an overview of the health and population sectors is presented in sections B and C. The analysis includes a statement of objectives, recorded progress to date and an examination of current and past public expenditure trends. The interrelationships between these factors are then assessed, as far as the data currently allows. In Section D the study examines the future resource envelope available to the GOB, in general, and the health and populations sectors, in particular. It seeks to establish whether future resource availability will allow the GOB to continue its current rate of expansion of funding in the health and population sectors. Finally, conclusions and recommendations are set out for the planning process of the 5th Population and Health Project.

A brief summary of the main findings of the PER is enclosed.

Health

Over the past five years, the GOB has significantly expanded its funding of the health sector. This has been achieved by increasing the proportion of funds allocated to the health sector from the ADP and Revenue Budgets. Furthermore, in keeping with its objectives, GOB has targeted this expansion of funding within the health sector towards Primary Health Care activities, especially in its ADP projects.

Nevertheless, despite some notable success stories, progress toward some critical GOB objectives has been slower than targeted. For instance, maternal health care indicators do not seem to have responded as planned. This suggests that resources have not been targeted appropriately in this important area.

Population

The combined efforts of GOB and its foreign development partners have made excellent progress toward goals for contraceptive prevalence and fertility. In particular, the expected fall in the population growth rate below 2% will be a substantial achievement. Nevertheless, such gains need to be consolidated and sustained for the realisation of the goal of an NRR equal to one.

There has been significant growth in the amount of funds, in constant prices, which has been allocated to the population sector and primary health care activities in particular. However, the sector appears to be financially dependent on GOB's foreign development partners to a much greater degree than the health sector. This may make self-reliance difficult outside the very long-run.

Furthermore, the data available seems to indicate that substantial recurrent activities are contained in the ADP and are not covered by the Revenue Budget. Some of these items are being funded by donors. Such reliance on external aid to fund revenue activities may undermine sustainability in the sector, by making progress more dependent on GOB's foreign development partners.

Future Resource Availability

It is expected that the economy will continue on its path of favourable economic growth, averaging as high as 6% per year, if GOB manages to push through various economic reforms. It is envisaged that the size of GOB's resource base and, correspondingly, the overall size of the ADP will grow by almost 5% each year, on average.

Nevertheless, it may not be possible to maintain the extremely commendable expansion in GOB funding, witnessed in recent years. The pressing needs in the health and population sectors may open up a potential resource gap which may be too large to be filled by reallocating GOB funds from other sectors.

Table I: Summary Statistics - Health and Population Sectors

Units: US$ million (1994/95 prices)

	1990/91	1991/92	1992/93	1993/94	1994/95
Health					
- ADP	52.3	51.0	58.5	74.0	92.8
- Revenue	93.7	96.9	93.3	118.8	129.2
- Total	146.0	147.9	151.9	192.9	222.1
Population					
- ADP	113.5	113.3	129.0	146.1	140.7
- Revenue	9.2	10.0	10.8	11.0	11.4
- Total	122.7	123.3	139.8	157.1	152.1
Total Health and Population	268.7	271.2	291.6	350.0	374.2
Proportion of GOB Budgets	5.9%	5.9%	6.1%	6.8%	6.9%
Proportion of GDP	2.1%	2.0%	2.1%	2.4%	2.4%
Per capita expenditure (US$)	2.4	2.4	2.5	3.0	3.1
Funding					
- GOB	174.5	186.1	206.0	222.5	252.3
- Donor	94.2	85.0	85.6	127.5	121.8

Sources: GOB, WB, IMF

Recommendations for Future Action

- **Strengthen the Planning Process through economic analysis** - there is need to strengthen the planning process in the health sector. While GOB seems to have been effective in increasing resources for target areas, such as PHC, it is debatable whether these resources have been used in the most cost-effective manner. Hence, economic evaluation of key strategies in the health sector is required. Such initiatives could feed into the development of an official *National Health Plan*. Furthermore, it is important that economic analysis be used to cost the strategies contained in any such plan.

- **Improve GOB Financial Databases** - It is crucial that GOB continues to improve its financial databases, particularly for the health and population projects contained in the ADP. Indeed, the regular monitoring of expenditures would give the planning bodies in MOHFW and the Planning Commission vital data for effective decision making.

- **Investment in Maternal Health activities** - The area where need is most apparent is maternal health care. It is recommended that a *Technical Advisory Panel (TAP)* be convened which can guide the HEU in an assessment of the cost-effectiveness of alternative programmes in this area. The TAP would be made up of resident experts in the Maternal Health field who could contribute technical direction to the economic analysis. The results of this study could be used to guide investments in this area.

- **Assess GOB's long term liabilities in the population sector** - Given the extensive donor funding of recurrent activities in the population sector it is important to assess the financial sustainability of outputs. It may be advisable for GOB to expand its funding of revenue items in the population sector to meet operating costs if this analysis suggests that external funds are being used to meet domestic liabilities. Further research is needed to analyse the potential roles of the private sector and households in this area.

- **Assess recurrent cost implications of *future* plans** - While the forthcoming study on recurrent costs will highlight some of GOB's liabilities in the health and population sectors, it is important to conduct a more comprehensive assessment of the situation and develop an on-going sentinel costing system. Not only is information required on ADP projects, but also data are needed on expected outputs of projects and their operating costs. One initiative which may help in this process is the development of a system of *National Health Accounts*. When implemented successfully, planners would have detailed information on operating costs at each level of the health care and family planning system.

- **Mobilise extra resources for the future** - Given projected future resource constraints it is necessary to assess the potential for mobilising extra non-GOB resources, particularly from households and institutions. Are there sectors where *cost-recovery* may be more appropriate? In what areas could the competitive forces of the private sector be used to compliment existing GOB activity? In particular, what are the comparative advantages of private sector operations and NGOs vis-à-vis GOB? Could *health insurance schemes* be developed for certain sections of the population?

- **Improve resource use within the sectors** - To help future sustainability it will be important for GOB to reorient the mix of current initiatives in the health and population sectors to guarantee maximum impact towards targeted objectives from invested resources. Resources need to be directed to those programmes which are focused on key targets and which are the more cost-effective of alternatives. Only by prioritising activities will GOB achieve its long run objectives as planned.

A. Introduction and Methodology

As the Government of Bangladesh (GOB) and its foreign development partners look to design a 5th Population and Health Project it is vital for them to draw lessons from the past. Planning for the future requires a careful review of historical expenditure patterns, especially those incurred over the last five years. These can give vital clues to the cost-effectiveness and sustainability of current initiatives in the health and population sectors as well as providing insights into the current planning process. It is very timely then that as part of the preparation process for the 5th Population and Health Project that this Public Expenditure Review (PER) has been commissioned. The last comprehensive PER of the Bangladesh economy was performed in 1989 under the World Bank. Since then the GOB has invested substantial resources into the health and population sectors and a new PER is not only advisable but also necessary given the current debate about the efficacy of programme approaches and the way forward for Bangladesh.

This study aims to set out, therefore, the progress made towards stated objectives in the health and population sectors. It examines the link between such progress and the funding pattern of investments in each sector. While the analysis is restricted to GOB funded health and family planning facilities it is well understood that these are only a part of the whole. In this context, the PER should be seen as an evolving process. It is hoped that the PER will become a regular publication of the GOB and that it will expand its breadth and depth of analysis as databases improve and economic skills are institutionalised.

The study also examines the future resource envelope available to the GOB, in general, and to the health and populations sectors, in particular. It is especially important to ask whether future resource availability will allow the GOB to continue its current rate of expansion of funding in the health and population sectors. This is not merely a financial consideration. The administrative load associated with running many projects and their components can indeed be onerous. This raises the important concept of the administrative capacity of GOB in this area. Finally, conclusions and recommendations for the preparatory process of the 5th Population and Health Projects are set out.

It must be repeated that the focus of the study is the operations and investment of GOB and, to some extent, its foreign development partners in the health and population sectors. It is understood, nevertheless, that a complete analysis of the health sector would also review the role of the private sector, traditional healers and NGOs, as well as household behaviour. Unfortunately, such research is beyond the scope of this analysis. Where particular topics for further work are thought interesting and pertinent they are highlighted. In particular, the potential for *cost-recovery* and *health insurance schemes* is well worth investigation. In addition, because of limitations of time and data the scope of the study has been restricted to the operations, activities and projects of the MOHFW. It is understood that this is a very narrow definition of the health and population sectors. Indeed, in one sense all activities have a bearing on health status and population growth. At the very least, education and sanitation have an important impact on both sectors. Again our apologies must go to the reader with the hope that interested parties will further pursue these important areas of research.

Unfortunately, several areas of analysis have been curtailed by a shortage of reliable and comprehensive data. In some cases, therefore, conclusions have been drawn on available but incomplete information. For instance, most aggregate data cited for the ADP is based on revised allocations rather than actual expenditure. This is a second-best position, but expenditures are historically equal to 80% of revised allocations on an aggregate level. Furthermore, additional data would, most probably, only lead to a refinement of conclusions. Nevertheless, it is hoped that, to strengthen the planning process in the future, the GOB will continue to expand its capacity for both financial and physical data collection through such initiatives as the Budget Sector Reform Project. Indeed, it is essential for GOB to institutionalise as quickly as possible an effective mechanism for financial monitoring in the health and population sectors. Furthermore, a system of *National Health Accounts* might help the GOB plan for operating costs in the health and population sectors. Both initiatives would help GOB maximise its impact in these crucial areas of the economy.

B. The Health Sector

1. Objectives of GOB in the health sector

In order to be able to assess the effectiveness of public expenditure it is necessary to understand the objectives of GOB in the health sector. If the planning and budgeting process is operating effectively, then these objectives will shape investments and operating costs. By monitoring the progress made towards GOB's goals alongside public expenditure trends, this study can highlight areas where current strategies are working well and areas where alternatives may be more appropriate. Unfortunately, the absence of a formal health plan makes our analysis more difficult. Instead we have to rely on the health objectives which come from the Five Year Plans.

Over the past twenty years four Five Year Plans have provided the guidelines for the development of the health and population sector. Despite their different orientation, all of them have emphasized the importance of Primary Health Care (PHC) as the key strategy to improving the health status of the population. The emphasis of the *First Five Year Plan* was to create a rural health infrastructure to provide MCH services at local levels. In the *Second Five Year Plan* the primary objective was to increase the coverage of health care services and narrow rural-urban disparities. Particular importance was given to PHC. As part of the *Third Five Year Plan* a comprehensive National Strategy for Maternal and Child health was endorsed by GOB. In addition, GOB accepted the global strategy of *Health For All (HFA) by the Year 2000* as a national goal. Hence, the overall objectives of the *Fourth Five Year Plan* are human resource development, and the promotion, development and operation of a national health care system which will achieve the goal of HFA by 2000.

Major health objectives of the Fourth Five Year Plan (1990-95) include:

- *improvement of the health status of the population, especially of mothers and children;*
- *strengthening and consolidation of Primary Health Care to improve quality and quantity of health services;*
- *improvement of nutritional status of the population;*
- *prevention of communicable diseases;*
- *provision of health and family planning services in a package to the family with a view to increasing its welfare*
- *fostering appropriate health manpower development and its optimum utilization*
- *promotion of adequate production, supply and distribution of essential drugs, vaccines and other diagnostic and therapeutic agents*
- *improvement of health system planning and management capabilities.*

In order to measure the progress achieved to date toward these goals, we have set out, in Table 1, the targets that were to be reached by the end of 1995, according to the Fourth Five Year Plan. In addition, we have highlighted the expected status of indicators in 1994, using a variety of sources. Some differ concerning the precise level of certain indicators for 1994 (e.g. for IMR, MMR and EPI Coverage) but, in general, most concur on the rate of progress. Even where there are discrepancies these do not appear to be substantial.

Table 1: Health Sector Status Indicators

Indicators	1991	1994 (expected)	1995 (target)
CDR (per 1000 population)	11.0	11.0	12.0
CBR (per 1000 population)	31.6	31.0	30.0
IMR (per 1000 live births)	91.3	88.0	80.0
MMR (per 1000 live births)	5.0	5.6	4.5
Life Expectancy (Years)	56.0	57.0	55.0
Population covered by PHC (%)		50.0	80.0
EPI Coverage (under 1 year) (%)		70.0	80.0
Access to Safe Water (%)	45.0	80.0	
Access to Sanitation (%)		10.0	
Delivery by Trained Personnel (per 100 deliveries)		20.0	50.0
Nutrition (per capita daily calorie intake)	1900	2076	2100

Sources: GOB, WB, UNICEF

As Table 1 displays, there has been significant progress toward some targets in the health sector. Indeed, it is very important that GOB should not under-play its successes. There has been massive investment in the rural health infrastructure, through the construction of almost 400 health complexes at Thana level. Such investment is an important boost to PHC activities. In addition, EPI and Vitamin A distribution can be pointed to as success stories. Immunisation has increased from a lowly 2% in 1984 to approximately 70% in 1995. Furthermore, the target for the CDR was met early in the life-time of the 4th Five Year Plan.

Still, other goals are highly unlikely to be met by the end of 1995. In particular, the data would seem to suggest that maternal and child health care is lagging behind GOB's targets, although today's Under 5 mortality rate compares very favourably to its level in the mid 1970s. Nevertheless, progress on reducing IMR has been slower than forecast, although quite good, and little has been achieved with respect to the MMR. Delivery by trained personnel has also not increased with expectations and malnutrition is widespread.

Why have some of GOB's health targets not been achieved? There are many possible reasons for this, some within GOB's control and many not. It is the scope of this study to focus only on the former and, even more specifically, those related to the public expenditure programme. Three possible causes of this situation which are of particular interest to the PER are set out below. These may work alone or in conjunction with each other:

- *Over-ambitious targets* - goals are set at levels which are not feasible within the time-frame even given appropriate resource allocation and management of projects.

- *Insufficient funding of the health sector* - GOB and its foreign development partners do not make available sufficient resources for the attainment of key goals in the sector.

- *Sub-optimal allocation of resources within the health sector* - the resources mobilised by all parties are sufficient but are not utilised to their maximum effect.

It is useful to consider each factor individually, as each points to a specific type of limitation in the planning process. There has been a substantial increase in funding in the health sector in aggregate, as we discuss later in this section. However, what is less clear is whether such funds have been targeted to particular areas of priority and, once targeted, whether they have been allocated optimally to health projects and activities. Furthermore, it also difficult to identify whether overall targets were feasible given historical funding patterns. Perhaps the question of resource allocation to and within the sector is of particular importance. It would appear that while there has been an impressive investment of capital in health service infrastructure this has not always been backed up by the managerial procedures and funds to operate health services at an efficient level. Low utilisation rates at key points in the system may be a sign that the quality of service is less than desired and that services are potentially underfunded. For instance, can the shortage of doctors at rural health centres be attributed to a weak incentive package? Would such limitations be overcome by the development of a comprehensive official health plan? In the next section we concentrate our analysis on the funding of the public sector health care activities keeping in mind these issues.

2. Review of GOB funding of the health sector

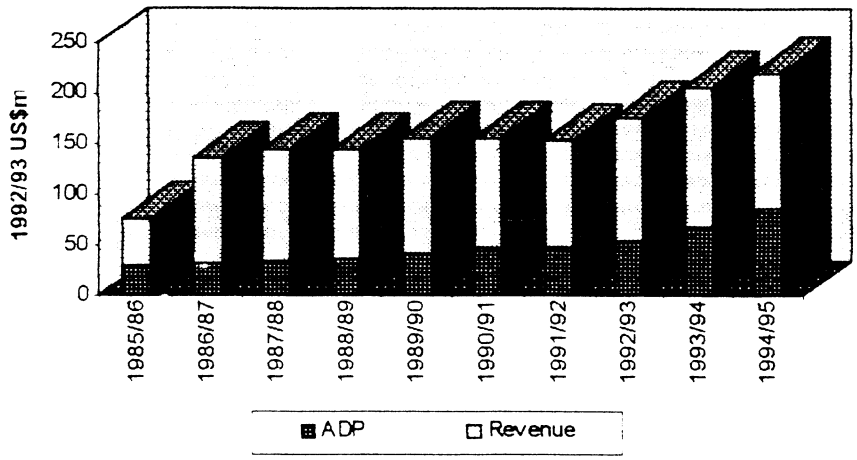
Since the mid-1980s the GOB, along with its foreign development partners, has significantly expanded the funding of the health sector both in the ADP and the Revenue Budget. Since 1986/87, the resources devoted to the health sector have, in real terms (i.e. constant US dollars), expanded by an annual average of 6% and such growth has been even more pronounced for the health projects in the ADP. Indeed, the revised allocations to health projects in the Development Budget have increased by an impressive 13% *per annum*, in constant US dollars, see Diagram 1.

Diagram 1 compares annual revised Budget allocation figures, provided by the MOF, converted into constant US dollars for ease of comparison. It is interesting to note the particularly large increase in the last two fiscal years. Between 1991/92 and 1994/95 the total funds allocated to the health sector increased by almost US$ 70 million, in 1992/93 prices, equating to an expansion of 40%. It is apparent that GOB and its foreign development partners have done much to expand the resources available to the health sector.

Does such a growth in resources reflect a sector-wide pattern or have there been substantial reallocations to health? Closer analysis of the ADP and the Revenue Budget data reveals that the increase in overall funding of the health sector has been achieved through just such a reallocation. Between 1985/86 and 1994/95, the *share* of the ADP and Revenue Budgets going to the health sector almost doubled from 2.2% to 4.3%. There has not been such a large inter-sectoral reallocation in the last five years but health is undoubtedly receiving a larger share of the

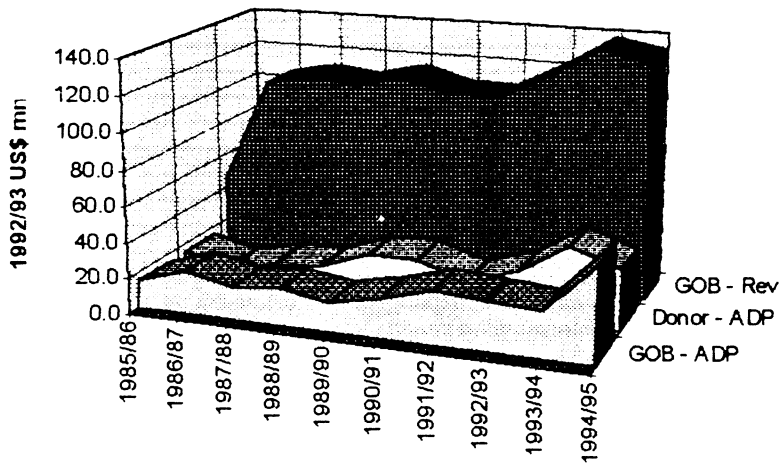
total. Although such an expansion demonstrates GOB's commitment to the health sector there may be a limit to the future potential of such redistribution.

Diagram 1: Total funding of the Health Sector in the ADP and Revenue Budgets, real US$, 1985/86-1994/95



Nevertheless, it is worth analysing the distribution of funding between GOB and its foreign development partners. Has the increase in funding been due solely to an expansion of external funds? The available data would seem to suggest otherwise. GOB has increased funding of the sector from its **own** resource base. Between 1990 and 1995 GOB funded approximately 52% of the revised allocations for the health projects in the ADP, with the 1994/95 budgetary allocation reaching a very respectable 61%.

Diagram 2: Funding of the Health Sector by GOB and its foreign development partners



The funding patterns of GOB and its foreign development partners throughout the 3rd and 4th Population and Health Projects are displayed in Diagram 2. By far the single largest source of expenditure has been GOB's Revenue Budget. Overall, there has been a slight decline in the share of funding that GOB has contributed to the health sector, from 87% in the late 1980s to 83% in the first half of the 1990s. Still, the sheer size of GOB's spending demonstrates its continued commitment to the health sector. Indeed, GOB health sector funding has been growing by an average of 9%, or 12 million dollars, every year, in constant 1992/93 prices over the last five years.

Although any expansion of funding in the health sector is to be welcomed a more complete analysis of the ADP and Revenue Budgets is needed to see exactly where these additional funds have gone. What type of activities have benefited from this expansion? Can such an expansion be sustained? How has this expansion helped GOB reach its objectives? Critics have argued that without an explicit formal health plan allocations may not be guided toward their area of maximum impact. This raises questions concerning the design of health sector activities and the link between their outputs and the sectoral goals. To address some of these questions it is vital to take a closer look at the type of activities funded by GOB in the Development and Revenue Budgets. Before we proceed with this analysis, though, it is worth reviewing in more detail some of the sources of GOB's funding in the health sector. This may help our understanding of the sustainability of the recent expansion. Once this has been done we will turn to issues of the allocation of resources **within** the health sector.

Some of GOB funding to the health sector, as with all other areas of investment, is effectively dependent upon external *commodity* aid and *food* aid. GOB receives such aid in kind, and having sold or auctioned off these goods, uses the receipts to boost its own resource base. In contrast to project aid, which is shown as donor contribution in Diagram 2, commodity aid and food aid have the eventual effect of boosting the GOB's **own** resources. This, in turn, allows GOB to direct more resources into the ADP and, more specifically, the health sector. Hence the question must be raised as to whether food and commodity aid have produced an **apparent** increase in GOB funding, which is actually due to an increase in external assistance.

To answer this question it is necessary to take a macro view of the economy. It is almost impossible to track the revenue from the sale of commodity and food aid, except in those circumstances where it is tied to particular activities. Hence, it may be unclear which of these funds are used to boost the GOB's *health* expenditure programme. Nevertheless, in one sense this is of little concern since all GOB activities are funded from the same pot. Such aid represents an opportunity cost if foregone. In other words, even if the funds were not directed to the health sector they might be allocated to another sector, which in turn would free up resources for the health sector. Hence, an *overall* analysis of the relative sizes of the different types of aid will suffice.

Diagram 3: Foreign Assistance to Bangladesh, by type, 1985/86 to 1994/95

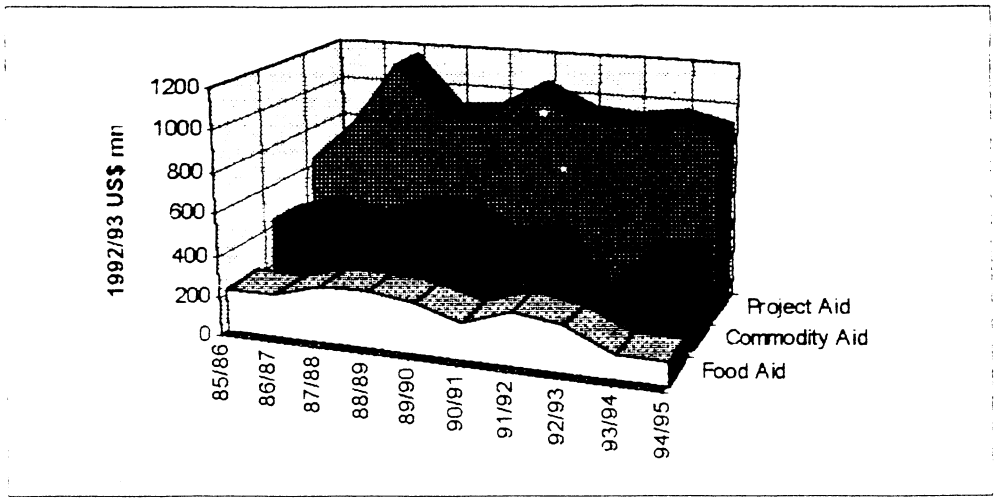


Diagram 3 displays the real amounts of actual aid, by type, which have boosted GOB activity since 1985/86. As the diagram shows the combined share of commodity aid and food aid has fallen from an average of 45% in the mid to late 1980s to only 36% in the early 1990s. (All indications are that this type of aid will continue to be less important in the future, barring a major natural disaster.) This decline has taken place against a backdrop of increasing GOB funding of the health and population sectors. Hence, the *growth* in the allocation to health would seem to have come almost entirely from the GOB's own domestic resource base.

Still, any reduction in commodity aid and food aid will make further growth in the GOB's funding of such investments more difficult. In any case it would reduce a valuable resource base for GOB, which in turn might impact on the delivery of health and population services. Indeed, there must be widespread concern about a potential reduction in USAID's large input of food aid into the Bangladesh economy. This raises questions of financial sustainability to which we will return in Section D. At present it is estimated that commodity aid and food aid may make up as much as 25% of GOB's funding of the health and population sectors, approximately equal to US$ 60 million. Such figures can only be estimates at this stage, however, and further research is needed in this important and often overlooked area.

Health Projects in the ADP

According to the 1994/95 ADP, GOB and its foreign development partners currently fund 63 projects in the health sector, including both PPs and TAPPs. There is no existing database which monitors the allocation and expenditure of ADP projects in a consistent and disaggregated manner. This makes analysis of the projects in the ADP more difficult. It is hoped that the database which has been compiled by the HEU as part of this exercise will provide the first step to such a goal. It is understood that the Budget Reform Team is keen to develop further such a planning and monitoring system as part of the next Budget cycle. However, it will also be necessary to enhance this process with a *National Health Accounts* system, which will provide sufficiently disaggregated data for effective economic analysis in the sector. Such a system will undoubtedly be a real asset to GOB, strengthening existing planning capacity. In the meantime,

summary data based on revised allocations for the ADP health projects are available as shown in Table 2. This aggregates the projects by year since 1991/92 and highlights the proportions funded by different sources and the type of expenditure planned.

Of particular interest is the breakdown between capital and recurrent allocations made in the ADP and shown in Table 2. It is unclear, though, as to the consistency and integrity of such classifications. No formal definition is given by GOB in published form regarding the components of capital and revenue allocations. However, informal discussions with various institutions indicate that revenue spending includes the following items:

- Salaries of expatriates
- Salaries of local project staff
- Fuel
- Rent
- Maintenance of buildings
- Maintenance of vehicles
- Bills and charges

Included under capital are other items, such as construction, vehicles and training. Although this broad disaggregation is approximately correct there are some gray areas where it is not immediately clear whether categories are used appropriately or consistently (e.g. some recurrent elements of training and regular medical supplies). This is not to say that classification of such line items is always apparent and internationally agreed. There are many items which are developmental in nature but are recurrent in form, for instance training. Still, given there are no published guidelines it is assumed that the individual planning officer has discretion over classification and this will inevitably lead to some inconsistencies. However, a cursory analysis of the data is still probably of use, until a more rigorous classification system is introduced. Interested readers are encouraged to examine the HEU's second Working Paper, *An Analysis of Recurrent Costs in GOB Health and Population Facilities*, for a fuller discussion of this topic.

As can be seen from Table 2, the funding of capital items is far greater than revenue activities. This is to be expected in the Development Programme. Although, recurrent items accounted for 25% of funding in 1993/94 this dropped back to a more normal 16% in 1994/95. This indicates that it is unlikely that foreign development partners are meeting GOB liabilities in the ADP for the health sector. This supposition is re-enforced by the size of and recent growth in the Revenue Budget for health. Nevertheless, a more complete analysis of the relationship between the GOB's Development and Revenue Budgets is undertaken in HEU's second Working Paper cited above.

Table 2: Summary Division of Funding and Activities of Health Projects in the ADP

Financial Year	GOB	Donor	Capital*	Revenue*
1990/91	45.9%	54.1%	81.2%	18.8%
1991/92	63.4%	36.6%	85.8%	14.2%
1992/93	52.0%	48.0%	83.4%	16.6%
1993/94	48.0%	52.0%	74.7%	25.3%
1994/95	61.4%	38.6%	83.5%	18.3%

Source: GOB, WB
* Derived from ADP Publications

It is not possible to disaggregate the ADP project data in a consistent and comprehensive manner by using current databases of GOB. In HEU's analysis of recurrent cost implications, in its second working paper, much work was done to try and establish just such a database. Table 3 below highlights some of the preliminary findings of this work. It classifies expenditure on ADP projects in the health and population sector by line item. It is not a complete database for the projects but it is hoped that it can be extended and incorporated into the budgetary process in a relatively short period of time. In all, 67 Project Directors returned completed forms and this amounts to 60% of the projects in 1994/95, falling to 53%, 44%, 28% and 17% for each earlier year back to 1990/91. The proportion of expenditure covered by the results of the survey is much higher: for 1994/95 it is 84%, 1993/94 it is 73% and 1992/93, 75%.

Table 3: Survey Results - Expenditure in Health and Population Projects

Units: US$ million

	1990/91	1991/92	1992/93	1993/94	1994/95
Construction	0.54	10.39	15.48	12.10	31.47
Purchase of Equipment	8.47	7.77	9.55	15.93	18.34
Purchase of Land	1.05	0.17	0.09	0.03	0.92
Training	0.93	1.14	2.56	5.49	9.47
Technical Assistance	1.15	1.13	1.25	3.47	5.30
Supplies	9.51	21.85	27.22	39.62	48.07
Operation and Maintenance	2.83	3.86	4.45	5.02	5.81
Salaries	17.21	23.35	22.03	25.12	26.41
Allowances	20.85	13.66	17.79	17.96	19.81
Others	0.83	1.87	13.24	15.13	20.20
Total	63.36	85.20	113.66	139.86	185.79

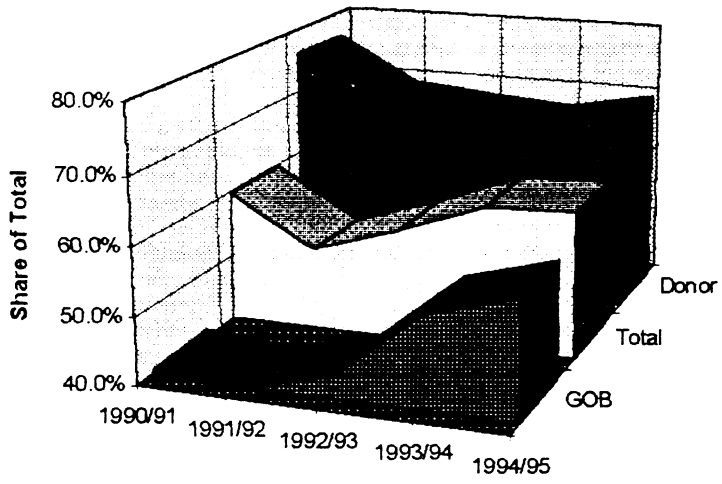
Funding of PHC within the ADP

Allocation and expenditure patterns within the health sector should reflect the priorities of GOB. As was noted earlier in this report the priority area for GOB intervention has been PHC (PHC) throughout its Five Year Plans. By making an approximate disaggregation of the projects in the ADP it is possible to discern how PHC activities have been funded. This may indicate how the achievement of health sector targets has been assisted by public expenditure patterns.

It is important to note, however, that such a disaggregation can never be precise given the limitations of time and data in this exercise. Some projects may provide inputs into different levels of the health sector e.g. large hospitals may still provide some primary health care. In such cases it is often difficult to place values on the proportion of funding going to different levels of the health sector. Nevertheless, orders of magnitude estimates have been made which minimise the margins for error and provide us with useful, if general, information on the range of health activities and investments. Indeed, finding a good working definition of PHC for analysing public expenditure is always a difficult task. There have been many and varied attempts in the development literature, each with a slightly different emphasis. Hence, our analysis is forced to be only as good as our assumptions. Included in PHC we have assumed are all investments in Thana Health Complexes, including construction, and the operation and development of services at rural and community levels. Refinement of this definition would probably involve a closer look at the services delivered at THCs but such research is left for a later date.

Diagram 4 details past and on-going proportions of funding from each source directed to PHC. The results of the analysis seem to indicate that while at the beginning of the 4th Population and Health Project the GOB allocated the bulk of Development Expenditure to areas other than PHC by 1994/95 it had targeted over 50% of its ADP health funding to PHC activities. **Hence, not only has GOB reallocated development expenditure toward health care in the past five years but it has also, according to our definition, reallocated funding within the health sector toward PHC.** The proportion of health care funding allocated to PHC by GOB and its foreign development partners is highlighted in Diagram 4.

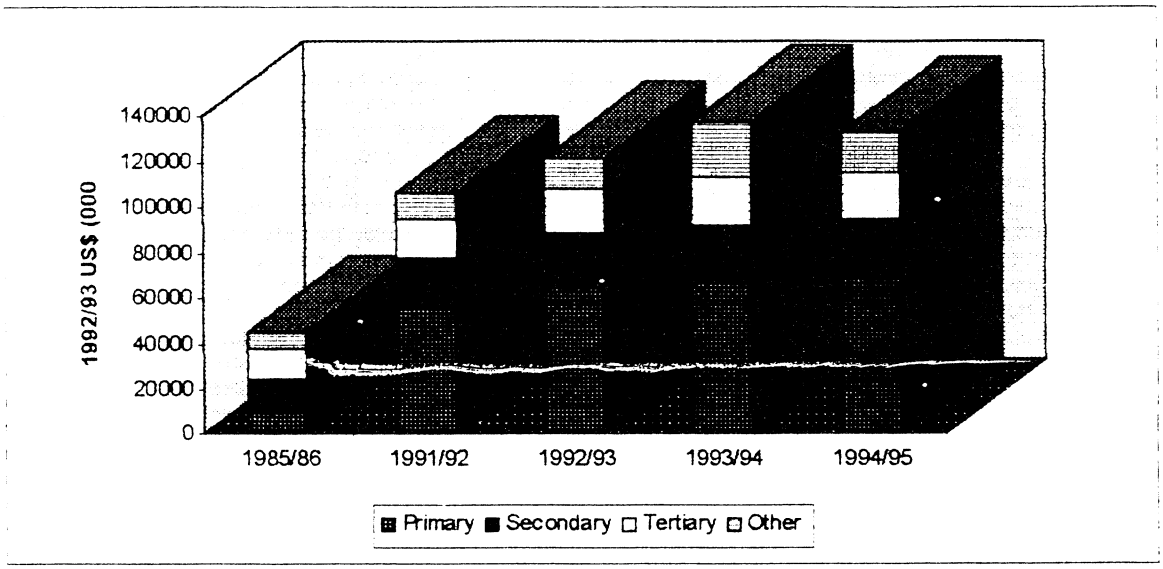
Diagram 4: Proportion of Health care funding directed to PHC, 1990/91-1994/95.



Health Activities in the Revenue Budget

Between 1991/92 and 1994/95 the funding of health activities under the Revenue Budget increased by an average of 7% per year, or 24% in total. It is important to ask again which level of the health sector benefited most from this expansion. If we make an approximate division of funding in the health sector into four components (primary, secondary, tertiary and other) it is possible to draw some conclusions on the operating costs in the health sector. For convenience, under *primary* we consider the basic package of curative services and preventive programmes. *secondary* is concerned with general curative hospital based services. *tertiary* consists of more specialised hospital services, while *others* consists of the administrative and planning operations of MOHFW headquarters.

Diagram 5: Revised Revenue Allocations to the health sector, 1985/86 & 1991/92-1994/95



In Diagram 5, the growth, between 1991/92 and 1994/95, in revised allocations for each sector is highlighted, along with the breakdown for 1985/86 as a point of comparison. As can be seen there has been an enormous expansion in the funding of health activities under the Revenue Budget from the mid-1980s. The major beneficiary of this growth was primary health care, increasing from only 20% of the Revenue Budget in 1985/86 to over 50%. In contrast, within the 1990s, there has been no substantial alteration of shares. The share going to PHC did drop by almost 5% between 1992/93 and 1993/94, from 53.4% to 48.7%, but it largely recovered in the 1994/95 Revenue Budget, back to 52% of health sector revenue allocations. (Particular areas of expansion over the last few years have been the funding of *Headquarters*, *Other Medical Schools and Colleges* and *Works and Maintenance*.) It would appear that within the last five years the expansion of health care funding in the Revenue Budget has been spread fairly evenly over different levels of the health sector. Given the massive amount of investment that there has been into rural health infrastructure and PHC activities, it may be wondered whether there will have to be similar substantial growth in the funding of PHC activities in the Revenue Budget. Again, further analysis of this requires disaggregated data on the operating costs of health facilities, which could be provided by a *National Health Accounts System*.

Summary

- From the preceding analysis it is apparent that, over the past five years, the GOB has significantly expanded its funding of the health sector by reallocating resources from other areas of the economy. In particular, and in keeping with its objectives, it appears to have redirected funding within the health sector towards PHC, especially in its funding of the ADP projects.

- Nevertheless, it is evident that, despite some success stories, progress toward some of GOB's objectives has been slower than targeted. For instance, maternal care indicators do not seem to have responded as planned, even with the increased funding of PHC activities.

- Care must be taken to ensure that all the running costs of new investments in PHC are adequately financed in GOB's Revenue Budget. Only in this way will investment in PHC be able to achieve its desired outcome. The recurrent cost liabilities of such investments are analysed in HEU's second Working Paper: *An Analysis of Recurrent Costs in GOB Health and Population Facilities.*

- The GOB planning process needs to be strengthened, so that realistic and affordable targets can be supported by effective strategies which can be easily implemented. The development and completion of a realistic, formal Health Plan would be a major step toward a more efficient planning process and the realisation of GOB's goals in the health sector. Furthermore, it is important that economic analysis be used to cost the strategies contained in any such plan.

- It is crucial that GOB continues to improve its financial databases particularly for the projects contained in the ADP. In particular, the monitoring of expenditures would give the planning bodies in MOHFW and the Planning Commission vital data for effective decision making.

C. The Population Sector

1. Objectives of GOB in the population sector

The size and rate of growth of the population in Bangladesh has long been recognised as one of the most urgent and critical constraints to development. The population has more than doubled since the early 1960s, currently around 120 million, making Bangladesh the most densely populated non-city state in the world. The fact that the economic infrastructure of Bangladesh has been able to cope with such a large increase in population is a remarkable feat. However, it is well understood by GOB and its foreign development partners that the population growth rate must be controlled if equitable economic growth is to occur. In addition, with the urban population projected to increase by 80% to 35 million by 2000 there will be tremendous pressure on urban facilities. Hence, all Five Year plans have emphasised the special need for control of the rate of growth of the population. The overall aim has been to achieve a Net Replacement Rate (NRR) equal to one as quickly as possible. Despite great leaps towards this objective, the prospect of reaching this target by the year 2000 has all but disappeared. Nevertheless, even if it were only reached by 2010 or 2015 this goal would be an outstanding achievement for GOB.

The Fourth Five Year Plan envisages the creation of a greater degree of public awareness of the severity of the population issue. Major objectives of the Fourth Five Year Plan for population include:

- *giving priority to planning and implementation of population control and family planning both at the national and local level*
- *integration of population issues within the overall development programme right down to the community level*
- *reduction of rapid growth of population within the shortest possible time*
- *improvement of the health status of mothers and children*
- *decentralization of authority and responsibility for programme planning, strategy formulation and resource utilization*
- *initiation of multi-sectoral population programme*

Many of the overall goals of the population sector are very similar to those in the health sector. Hence, as we come to discuss key indicators in the population sector we only limit ourselves to an analysis of the progress made toward control of population growth, see Table 4. It is understood that this is too narrow a focus for a comprehensive assessment of the population sector, but for ease of analysis a more limited approach has been adopted. For information on indicators of maternal and child health care the reader is referred back to the section on health-care objectives.

Table 4: Progress made toward key population sector indicators

Indicators	1990	1991	1995 (Expected)	1995 (Target)
Population Growth Rate	2.15	2.07	1.96	1.82
TFR (per woman)	4.3	4.0	3.98	3.4
CPR (%)	39		46	50

Sources: GOB, BBS, WB

In many ways the population sector is becoming a success story. There is an almost universal awareness of family planning and it is reported that almost all women of reproductive age know of one modern family planning method. Although targets are not forecast to be met by the end of 1995, Table 3 does highlight the substantial progress that has been made. The CPR has increased over the course of the five year period (and from only 7.7% in the mid 1970s). This, in turn, has contributed to a lower TFR. It appears that modern contraceptive methods are being used over traditional ones and that spacing methods are proving increasingly popular. In turn the overall population growth rate is expected to drop below 2% per year in 1995.

Despite the progress made, the great challenge facing the GOB and its foreign development partners will be maintaining such initiatives over the foreseeable future in order to be able to achieve and consolidate an NRR of one. To examine such areas of sustainability it is necessary to review the Public Expenditure patterns in the population sector and it is to this matter that the study now turns.

2. Review of GOB funding of the population sector

In a similar manner to the health sector there has been a substantial increase in GOB assisted activities in the population sector over the last decade. In constant dollar terms, funding for the population sector has increased by an average annual rate of 8.5% between 1985/86 and 1994/95. Such an expansion is to be commended. Table 5 highlights this growth and compares the expansion in the funding of population activities in the ADP and in the Revenue Budget. Nevertheless, it is immediately apparent from Table 5 that few activities are funded through the GOB's Revenue Budget. In the *health* sector, between 1990/91 and 1994/95, the ratio of ADP funding to Revenue Budget revised allocations was 33:66, whereas in the *population* sector it averaged 90:10. This seems to imply that either many of the investments in the ADP are not sustained at an efficient level or that many of the recurrent costs of population initiatives are actually being included in the ADP, and possibly funded by donors! If the latter is the case then continued good progress toward key population indicators would seem to be highly dependent upon the flow of donor funds to Bangladesh. Further analysis of this situation is required before any final judgement can be made. In particular, it will be necessary to disaggregate ADP Population projects into functional categories of expenditure. Interested readers are referred to HEU's second Working Paper.

Table 5: Funding of Population Activities in the ADP and Revenue Budget

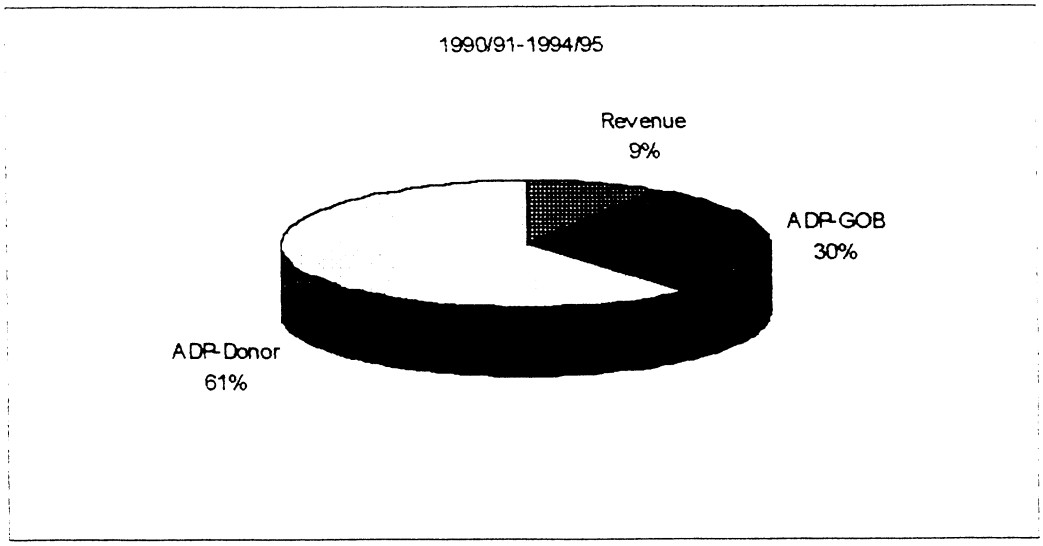
Units: 1992/93 US$ million

	1990/91	1991/92	1992/93	1993/94	1994/95
ADP	88.4	91.5	88.1	112.2	122.0
Revenue	8.7	9.5	10.2	10.4	10.8
Total	97.1	100.9	98.3	122.6	132.8

Source: GOB, IMF

It is also worth analysing the funding of the population sector by source, i.e. the relative proportions funded by GOB and its foreign development partners. This is highlighted in Diagram 6. Here the funding patterns of GOB and its foreign development partners, over the last five years, are averaged. External resources account for over 60% of total funds in the population sector and this position has changed little over the past decade. Hence it would appear that there is a *greater reliance on external assistance in the population sector than in the health sector*. The extent to which this might create problems for the financial sustainability of the achievements in the population sector is unclear. If the activities funded by donors are project specific then they may not be liabilities which will accrue to the GOB in the long run. In contrast, if donors are funding the recurrent costs of the permanent infrastructure of the population sector then there may be more cause for concern. (Further analysis of resource uses and sources in the health and population sectors will be conducted in a *Flow of Funds* study, to be completed by HEU, designed to map out the financial flows in the sectors. The study will form the basis for much future economic analysis.)

Diagram 6: Funding of the Population Activities in the Development and Revenue Budgets by Source



Population Projects in the ADP

Between 1990/91 and 1994/95 the number of projects in the population sector increased from 35 to 47 according to the ADP. Over the same period funding of ADP population projects increased by an average of 8% each year, in constant 1992/93 US dollars. As with health, detailed

disaggregated data is not currently available on all the projects in the population sector. However, summary statistics on the proportion of total funds from different sources and the different types of expenditure category can be derived from the published ADPs as set out in Table 6. One of the key areas for analysis is again the break-down between capital and revenue expenditure within the ADP. For a complete discussion of this breakdown the reader is referred to the section on health projects in the ADP, earlier in this study.

Table 6: Summary Division of Funding and Activities of Population Projects in the ADP

	GOB	Donor	Capital	Revenue
1990/91	29.7%	70.3%	50.3%	49.7%
1991/92	31.5%	68.5%	49.0%	51.0%
1992/93	38.3%	61.7%	51.6%	48.4%
1993/94	31.3%	68.7%	58.6%	41.4%
1994/95	33.5%	66.5%	59.6%	40.4%

Source: GOB, WB

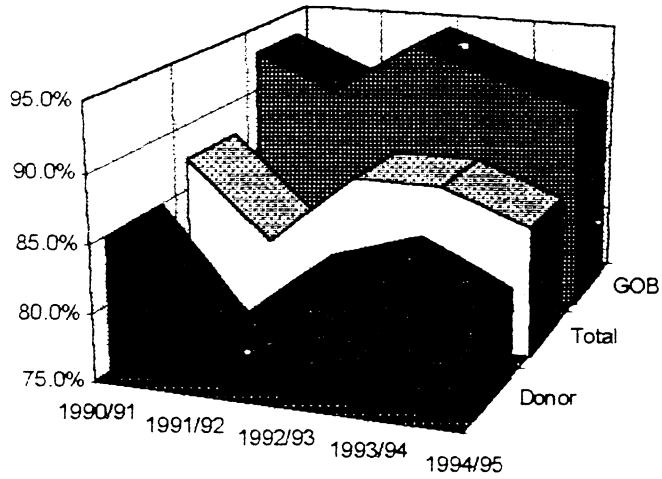
Table 6 reveals that there is a substantial amount of revenue activity in the population projects in the ADP. Indeed, in 1991/92 the amount of funding going to such recurrent activities actually outweighed the total earmarked for capital investment in the sector. What exactly is the composition of this revenue expenditure? Does it consist of liabilities which GOB will ultimately have to meet or of costs associated with the running of different projects which, in due course, will disappear? At this stage it is not possible to say conclusively and interested readers are encouraged to wait for the results of the *Recurrent Cost Analysis* study for a more complete and informed analysis of this situation.

The proportion of revenue costs in the ADP has been falling in recent years, reaching approximately 40% in the 1994/95 financial year. Nevertheless, it is apparent that GOB funding of the ADP projects in the population sector has not met these revenue costs at any stage over the last five years. **This implies that GOB's foreign development partners are funding revenue activities in the ADP.** While foreign funded revenue activities were at least equal to 20% of the ADP allocation to the population sector in 1990/91 this proportion had fallen to 6.9% by 1994/95. Such a reduction of dependence is good but the fact that it exists at all must raise questions concerning the long run sustainability of the initiatives in the population sector. Yet again, it is important to consider the difference between recurrent costs which are limited to the duration of any particular project and those which will have to be borne in the long run by the GOB.

While it is useful to examine the sources of funding of the population sector it is also vital to assess the areas to which such funding is allocated. In particular, given the importance of PHC activities to the overall goals and strategies of GOB it is essential to discern what proportion of ADP funds is directed to this area. Diagram 7 reveals the proportion of funds from GOB and donors which is allocated to PHC activities within the population projects in the ADP. As can be seen GOB comes out of this analysis extremely favourably, averaging almost 93% of its resources into PHC population activities. Donors achieve a still respectable 83%. These differences in funding patterns between GOB and its foreign development partners may be indicative of different approaches to population control. Perhaps, given such differences, there is need for

consensus building to determine the cost-effectiveness of different types of family planning activity. This might be especially important given the need for maximum impact at minimum cost to help sustainability in the sector.

Diagram 7: Proportion of Funds allocated to PHC activities in ADP Population Projects



Population Activities in the Revenue Budget

As was noted earlier the funding of the *population* sector in the Revenue Budget is small compared to that of the *health* sector and also compared to the funding of population projects in the ADP. Diagram 8 highlights the difference between the health and population sectors. In the diagram, the share of the Revenue Budget directed towards health and population activities is shown over the past decade. While the proportion of funds allocated to the health sector varies from under 3% in 1985/86 to over 5% in 1993/94, in the population sector the share of funds never exceeded 0.5% at any stage in the last ten years. Are GOB liabilities in the population sector not being reflected in the Revenue Budget?

The next step is to examine the activities which **are** being funded in the Revenue Budget. Table 7 sets out the amounts, in real US dollars, which have been allocated to different budget heads over the past five years, based on revised allocations where available. The share of funding allocated to different areas have remained approximately constant over the last ten years. *Thana offices* have received the bulk of the funds, around 60%, while the *Directorate of Population Control* has been allocated just less than 25% of the funds. *Hospitals and dispensaries* have taken just over 10% of the funds and the remainder has been allocated to *medical and surgical requisites*. Hence, the *allocation* of funding in the Revenue Budget does seem at first glance to be in accordance with GOB's priorities. However, as we have argued earlier, there may be some *omissions* from the GOB's Revenue Budget.

Diagram 8: Proportion of funds allocated to the Health and Population Sectors in the Revenue Budget.

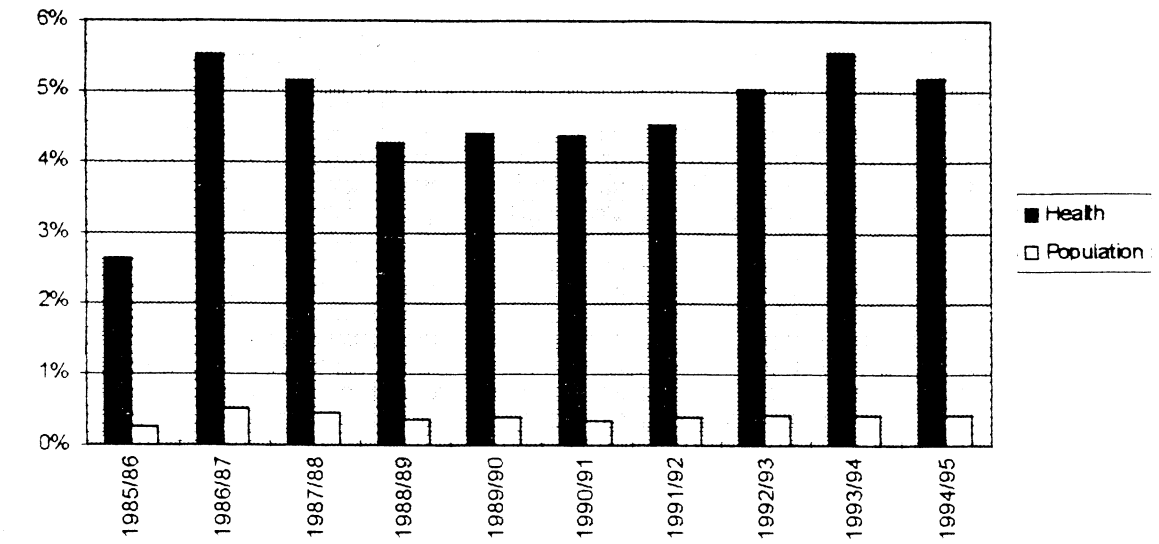


Table 7: Funding of Population Activities under the Revenue Budget
Units: 1992/93 US$ ('000)

	1990/91	1991/92	1992/93	1993/94	1994/95
Directorate of Population Control	1,969	2,241	2,509	2,522	2,565
Hospitals and Dispensaries	1,000	1,007	1,174	1,240	1,268
Medical and Surgical Requisites	150	135	140	146	141
Thana Offices	5,587	6,070	6,373	6,522	6,812
Total	8,705	9,453	10,197	10,430	10,786

Source: GOB, IMF

Summary

- The combined endeavours of GOB and its foreign development partners in the population sector have made excellent progress toward goals for contraceptive prevalence and total fertility. In particular, the expected fall in the population growth rate below 2% will be a substantial achievement. Nevertheless, such gains need to be consolidated and sustained for the NRR to be made equal to one.

- There has been significant growth in the amount of funds, in constant prices, which have been allocated to the population sector, and primary health care activities in particular. However, the population sector appears to be much more financially dependent on foreign

development partners than the health sector. This may make self-reliance in this sector difficult outside the very long-run.

- The data available seems to suggest that there are substantial revenue costs in the ADP, some of which are being funded by donors. It is not possible to break down precisely the composition of such costs, but their absence from the Revenue Budget could imply that GOB is not meeting its liabilities. If this is the case then, it may be important for GOB to increase its funding of recurrent activities in the population sector through its Revenue Budget.

D. Future Funding of the health and population sectors

One important area for analysis, especially in light of the design of the upcoming 5th Population and Health Project, is the projection of the future resource envelope available for the health and population sectors. Such forecasts allow us to set out the likely resource ceiling within which the GOB will have to operate. In particular, by projecting forward current allocations and expenditure it can be seen whether the recent expansion of activities in the health and population sectors is financially viable in the long run. If it is not then this implies there will either have to be a redesign of the mix of current initiatives, a reallocation of GOB funds towards the health and population sectors or a mobilisation of additional resources from non-GOB sources.

Fortunately, macro-economic indicators in Bangladesh have pointed towards substantial growth in economic activity over the past few years, despite a high rate of unemployment. GOB has adopted a package of reforms to boost economic growth and set ambitious plans for revenue generation. Recent growth estimates for the economy have settled around 5% for 1994 95. In global terms such growth rates are extremely healthy but given the rapid rate of population growth they need to be.

After consulting with leading economists in Bangladesh, the HEU was able to make provisional projections of the GOB resource base. These forecasts are shown in Diagram 9, detailing projections for revenue from taxation, non-tax sources and receipts from commodity aid and food aid. The latter are included in our forecasts as they can boost the effective level of resources that GOB has at its disposal. The forecasts for taxation revenue were based on a partial equilibrium analysis, using various regressions and estimates of the growth in GDP. (While the model uses a 6% growth rate in GDP as a base, this assumption can be relaxed if it is thought to be too optimistic.) Of course, the projections are only as good as the data used and in trying to establish relationships between key variables some regressions have less than desired degrees of freedom. In particular, the static nature of the analysis has its limitations. More accurate results would have to rely on the development of a macro-economic model for Bangladesh, the formulation of which would take a substantial amount of resources and time. However, in its absence the revenue projections give us a useful rule-of-thumb estimate of the likely future resource constraints.

For the purposes of this projection, it is assumed that the ADP and the Revenue Budget grow at the same rate as the GOB revenue base. This gives us total growth in the Budgets of 4.3% in the latter half of the 1990s, 4.4% between 2000 and 2005 and 4.5% thereafter, until 2010. Now if we presume that health and population take a fixed proportion of the ADP and Revenue Budget, in line with current allocations, then we can calculate the GOB's resource ceiling for the health and population sectors.

Projecting forward we can, therefore, compare present expenditure patterns against probable resource availability. Ideally, we would forecast future expenditure patterns on the basis of costed strategies towards GOB objectives. In the absence of this information we have merely extrapolated forward current expenditure patterns. This is not without use, as it may highlight the degree to which the GOB resource and administrative base may be overburdened without careful

planning. Nevertheless, it will still be important to carry out a comprehensive costing of GOB's plans. Only then will a more accurate picture be available.

Diagram 9: Projected Future Revenue Sources of the GOB

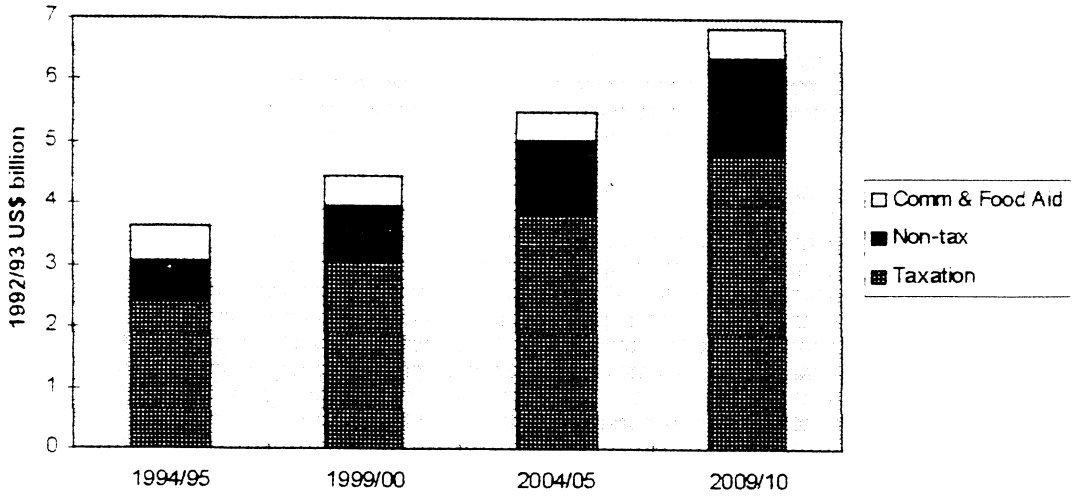


Diagram 10: Projections of Resource Availability against Future Allocations in the Health Sector

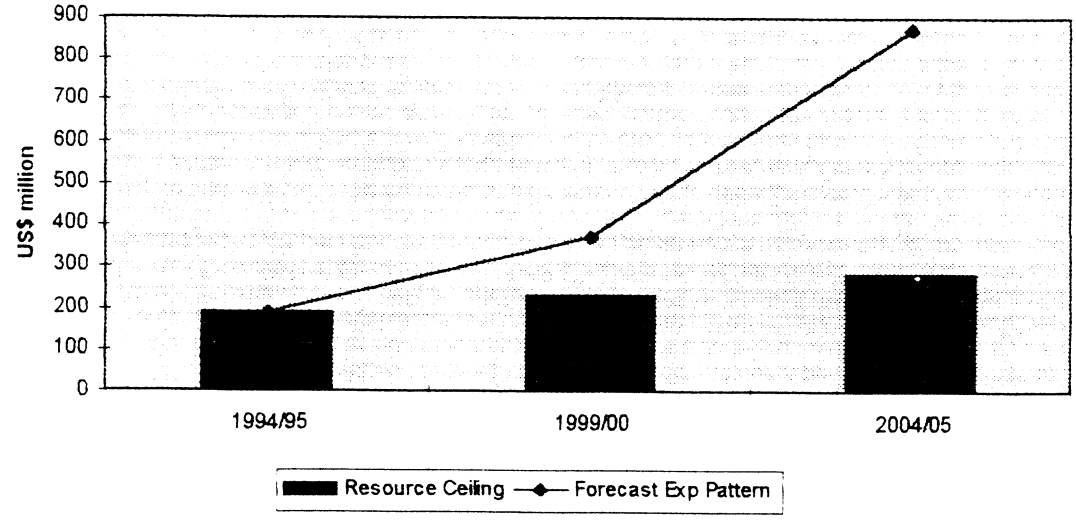
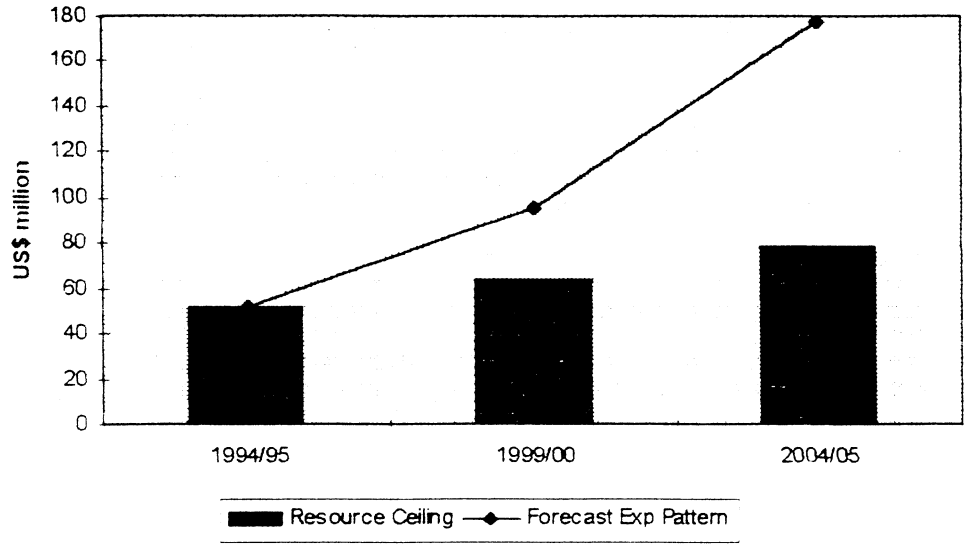


Diagram 11: Projections of Resource Availability against Future Allocations in the Population Sector



The results of this analysis are very clear. **The current rate of expansion of GOB investments and running costs in the health and population sectors may open up a large resource gap if it were to continue into the future.** Diagrams 10 and 11 compare, both for health and population, the forecast resource availability and the projections of expenditure. In both cases there is a substantial shortfall of resources. For instance in the health sector it is estimated that in the year 1999/00 there would be a resource gap of approximately $142 million, in 1992/93 prices. In the population sector the shortfall is not as large but is still a sizeable $32 million.

Hence, the data at its most simple states that GOB revenue in the future will not be able to sustain allocations to the health and population sectors if they continue to increase at their current rate. Of course, it has to be remembered that the projections are based on the growth of GOB allocations in the last five years. Now, it may be noted that allocations do not amount to actual expenditure but, historically, the amount of expenditure in any financial year is only 20% less than the revised allocations. Notwithstanding, it is not good practice to assume that projects will not proceed as planned. It might also be argued that funding is not expected to increase at the same rate in the future. Still, with reference to the progress made to date toward key health and population targets, as outlined in earlier sections, it would seem intuitive that current initiatives would have to be maintained if not bolstered if future targets are to be met. Indeed, the Preparatory Review Group for the Mid-Term Review of the 4th Population and Health Project estimated that there would have to be an exponential increase in funding to meet input requirements. From such a viewpoint this study's projections may be viewed as conservative.

It is important to ask how sensitive to changes in assumptions these results are. Forecasting requires supposition about the path of future variables and their interrelationships. If these differ from their expected level how will this affect the results of the model? For instance, if we assume that taxation increases with GDP, at 6%, what impact will this have on the forecast shortfall of resources? The changes in assumptions make little difference to the forecast resource gap, which

is still a substantial US$ 132 million, in 1992/93 prices, for health and US$ 29 million for the population sector.

Given such a *potential* resource gap in the future what are the options available to the GOB? This is particularly important since some donors are facing an uncertain period with respect to their levels of assistance. It appears that there are three basic strategies which could be employed by GOB, alone or in combination:

- **Mobilisation of additional GOB resources**

  This strategy requires the GOB to reallocate additional resources to the health and population sectors. This option has been used in the past as GOB sought to expand its funding of the health and population sectors in the time-frame of the 4th Population and Health Project. Still, there is a limit to the extent to which any such reallocation can continue. To meet its objectives in the sector and expand its initiatives GOB would have to increase the proportion of funds allocated to health and population in **both** its Development and Revenue Budgets. To meet the potential resource gap the allocation to the health and population sectors would have to increase from under 7% to over 10% of the GOB's budgets.

  Now, this scenario ignores the relatively small base of the GOB's funding of population activities in the Revenue Budget. Hence, an additional reallocation of resources will probably be required for this activity over and above the projected increase outlined above, if GOB is to meet all of its liabilities. Such a large *additional* reallocation may be difficult for the GOB. In any case it will have a significant opportunity cost in terms of its activities in other sectors. Hence additional reallocations may only be a partial solution, at best.

- **Mobilisation of additional resources from outside GOB**

  The second option for GOB would be to seek additional resources from other areas. Donors might be the most obvious source and this would indeed be a timely moment for any such appeal. However, given the fiscal austerity facing the aid programmes of a number of Western governments, USAID included, a significant expansion of funding in the health and population sectors may be difficult. Even if donors did meet the gap, this might only postpone problems of financing and render unsustainable some future investments. It would also weaken GOB claims toward increasing self-reliance.

  Alternatively GOB might turn to the household sector in its efforts to mobilise additional resources. There is some evidence that households might be willing to pay for services from GOB facilities if quality were improved. However, before this can occur, the potential for cost-recovery and its impact upon poor households needs to be assessed more rigorously. In addition, it is not known to what extent the private sector might be involved further in the delivery of health care to the population. Research is probably needed on the role of the private sector vis-à-vis the public sector before this option can be evaluated fully. Still, reports from other South and South East Asian countries suggest that strategies involving cost-recovery may be inequitable as well as financially unrewarding.

- **Reorientation of the current GOB initiatives in the health and population sectors**

  The third option is that GOB redesigns its current approach to initiatives in the health and population sectors. The current mix of projects may have to be altered in whole or part to make the investments in the health and population sectors more focused in terms of their cost-effectiveness, affordability and sustainability. At the same time this may reduce the burden of excessive administration on GOB staff which is already stretching existing capacity. Such an approach could limit the expansion in expenditure in the health and population sectors to what can be afforded while improving the impact of GOB's initiatives on its current problems in the sectors. A programme approach may, *in theory*, be one means by which such a transition could occur. Nevertheless, the requirements of successful transition may be very demanding, particularly in terms of time, resources and planning.

While it is clear that GOB relied on reallocating resources to the health and population sectors in the past there is a limit to which it can continue to pursue this strategy. Given this GOB can adopt two approaches: it can harness the competitive forces of the private sector and contract out or privatise various health care services and/or it can reorient its own mix of initiatives. Both strategies require in-depth research and analysis not only into their theoretical benefits and costs but also into the practical realities of their adoption.

E. Conclusions and Recommendations

This is a crucial time for the GOB and its foreign development partners. By starting the preparatory process for the 5th Population and Health Project, both are committing substantial future resources to the health and population sectors. Given the pressing problems that exist in Bangladesh it is vital that these resources are used in a manner which guarantees their maximum impact and their sustainability in the future. To help achieve this goal this section highlights the main issues that have arisen out of the PER and makes recommendations about the way forward for the health and population sectors in Bangladesh.

Health

Over the past five years, the GOB has significantly expanded its funding of the health sector by reallocating resources from other areas of the economy. In particular, and in keeping with its objectives, it seems to have redirected funding within the health sector towards PHC, especially in its funding of the ADP projects

Nevertheless, it is evident that, despite some success stories, progress toward some of GOB's objectives has been slower than targeted. For instance, maternal health care indicators do not seem to have responded as planned, even with the increased funding of PHC activities.

Recommendations

- The GOB planning process needs to be strengthened, so that realistic and affordable targets can be supported by effective strategies which can be easily implemented. The development and completion of a realistic, formal Health Plan would be a major step toward a more efficient planning process and the realisation of GOB's goals in the health sector. Furthermore, it is important that economic analysis be used to cost the strategies contained in any such plan.

- The area where need is most apparent is maternal health care. It is recommended that a *Technical Advisory Panel (TAP)* be convened which can guide the HEU in its assessment of the cost-effectiveness of alternative programmes in this area. The TAP would be made up of resident experts in the Maternal Health field who could contribute technical direction to specific economic studies. The results of this analysis could guide investment in this area.

- Furthermore, care must be taken to ensure that all the running costs of new investments in PHC are adequately financed in GOB's Revenue Budget. Only in this way will investment in PHC be able to achieve its desired outcome.

- It is crucial that GOB continues to improve its financial databases particularly for the projects contained in the ADP. In particular, the monitoring of expenditures would give the planning bodies in MOHFW and the Planning Commission vital data for effective decision making.

Population

The combined efforts of GOB and its foreign development partners have made excellent progress toward goals for contraceptive prevalence and total fertility. In particular, the expected fall in the population growth rate below 2% will be a substantial achievement. Nevertheless, such gains need to be consolidated and sustained for the realisation of the goal of an NRR equal to one.

There has been significant growth in the amount of funds, in constant prices, which has been allocated to the population sector and primary health care activities in particular. However, the sector appears to be financially dependent on GOB's foreign development partners to a much greater degree than the health sector. This may make self-reliance difficult outside the very long-run.

Furthermore, the data available seems to suggest that there are substantial revenue costs hidden in the ADP, some of which are being funded by donors. It is not possible to break down precisely the composition of such costs, at present, but their absence from the Revenue Budget could imply that GOB is not meeting all of its liabilities.

Recommendations

- It may be advisable for GOB to expand its funding of revenue items in the population sector to meet operating costs. At present, the data suggests that external funds are being used to meet recurrent costs which may be GOB liabilities. While this may be necessary in the short run, given resource constraints, it may mean that outputs are not sustainable in the long run. A more detailed examination of this issue is contained in HEU's second Working Paper: *An Analysis of Recurrent Costs in GOB Health and Population Facilities*

- If the GOB cannot increase its funding of such revenue activities then it might consider other ways of sharing costs to reduce its own liabilities, either from the private sector or the household sector or using programmes with very low maintenance costs. Unless, GOB can guarantee there are sufficient resources for future revenue expenditure then fresh investment may only lead to unsustainable outputs. Worse still, too few resources spread too thinly over many activities may actually undermine some of the progress made in the sector to date.

- While the forthcoming study on recurrent costs will highlight some of GOB's liabilities in this sector, it is important to conduct a more comprehensive assessment of the situation. Not only is information required on ADP projects, but also data are needed on *expected outputs* of projects and their *operating costs*. One initiative which may help in this process is the development of a system of *National Health Accounts* and a *Sentinel Costing System*. When implemented successfully this would give planners a detailed disaggregation of operating costs at hospitals, health centres and family welfare units.

Future Resource Availability

It is expected that the economy will continue on its path of favourable economic growth, averaging as high as 6% per year, if GOB manages to push through various economic reforms. However, the built-in growth in population may produce growing numbers of unemployed,

skewing the benefits of such growth. It is envisaged, though, that the size of GOB's resource base and, correspondingly, the overall size of the ADP will grow by almost 5% each year, on average.

Nevertheless, the extremely commendable expansion in GOB funding, witnessed in recent years, cannot be maintained. The pressing needs in the sectors may open up a potential resource gap which may be too large to be filled merely by reallocating health and population a larger slice of GOB's financial pie. While GOB successfully relied on reallocating resources to the health and population sectors in the past there is a limit to which it can continue to pursue this strategy.

Recommendations

The following activities may help overcome the constraint of limited resource availability in the future:

- Assess the potential for and impact of mobilising extra resources, particularly cost-recovery from households and institutions. Are there sectors where cost-recovery may be more appropriate?

- Assess the possible role of the private sector - in what areas could their competitive forces be used to compliment existing GOB activity? In particular, what are the comparative advantages of private sector operations and NGOs vis-a-vis GOB? Could *health insurance schemes* be developed for certain sections of the population?

- Reorient the mix of current initiatives in the health and population sectors to guarantee maximum impact from invested resources. To achieve this, the planning process must be strengthened so that realistic targets can be reinforced with cost-effective and sustainable GOB policies and strategies. This will help prioritise current initiatives and direct resources to those programmes which are focused on key targets and which are the more cost-effective of the alternatives. The design, development and approval of an National Health Plan may help in this endeavour.