

**INVESTMENT STRATEGY AND EXPENDITURE REQUIREMENTS  
FOR THE SOCIAL DEVELOPMENT**

by

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# INVESTMENT STRATEGY AND EXPENDITURE REQUIREMENTS FOR SOCIAL DEVELOPMENT

## 1. INTRODUCTION

The prospects of an emerging modern developing democratic welfare state are innumerable; but deficiencies are also evident. Neglects in the areas of social services (e.g., education, basic health, public health etc.), in many developing countries, have been considered responsible for this inadequacy. However, the OECD Report (1985, p.60) on "Social Expenditure" noted:

*If there is the political will to implement the necessary changes, not only can the quality of these services be improved but also there might be further redistribution, including the alleviation of poverty, as the incidence of low education and health standards, which are associated with inequality and poverty, is reduced.*

In fact, a positive association between sustained economic growth and government spending in the social sector is now being demonstrated by many economists. In a recent study, Nancy Birdsall (1993) found that Pakistan's economy could have achieved 25 percent higher per capita income in 1985 had the primary school enrollment rates in 1960 been as high as that of Indonesia (at 67 percent) rather than the 30 percent rate that existed in Pakistan. Not only that, Birdsall's research further established a profound propitious relationship between investment in female education with lower rates of infant mortality and fertility.

Public spending in social sectors can thus play a critical role in enhancing the standard of living as well as quality of life of the people, particularly the poor people. However, given limited resources, government needs to design expenditure policies efficiently and effectively to achieve its short-term and long-run targets. In this context, the World Development Report (1991, p. 11) noted:

*Government must spend more, and more efficiently, on primary education, basic health care, nutrition, and family planning. That requires shifts in spending priorities; greater efficiency and better targeting of expenditures, and in some cases greater resource mobilization.*

In view of the above considerations, and given that, both federal and provincial

explicit commitments to accelerate the process of improving the coverage, quality and effectiveness of the social sectors in the country in the form of a three year (1993-95) Social Action Program (SAP), the purpose of this paper is threefold:

- a) Analyze whether the existing public expenditure pattern meets the objectives of improving the access to and the quality of services delivered by the social sector institutions of Punjab.
- b) Derive the implications for inter- and intra-sectoral allocation of resources between sectors and also between recurring and development expenditures.
- c) Identify the major areas of wastage and then delineate an effective and efficient investment strategy with a view to promoting greater cost effectiveness for social services.

While analyzing the strategy of investment for the social sector, a public expenditure model was developed.<sup>1</sup> The model has been used to answer some of the major issues in social sector planning - **should tfae expenditures be target driven** (reflecting the social welfare implications), or **constrained by implementation** capacity, or **governed by considerations of cost effectiveness, or be undertaken in** response to demand.

In order to keep a broader and long-term perspective, we have designed the model in such a way that it not only caters to the needs of the SAP (1993-95) but also extends to the end of the perspective plan period, 2003, and covers all social sectors including those forming part of SAP. This type of long-term modeling will enable an assessment of the viability of the perspective plan targets in the social sectors. Furthermore, since the figures for budget allocations are now available, we also compare these with the ones generated by oar model in order to analyze the discrepancies between then and subsequently make appropriate recommendations for change in the expenditure priorities of GO Punjab.

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1 Details of the model are available from the author on reque st.

## **2. EXPENDITURE ALLOCATIONS AND FTS IMPLICATIONS**

In this section, we first briefly present an analysis of actual allocations of current and development expenditures and the adequacy of development expenditure in relation to the Seventh Five-Year Plan targets. This is followed by the targets follow this for the Perspective Plan (1988 to 2003) with a view to highlight the physical infrastructure required to achieve the desired targets. Then, with the aid of the estimates of expenditure needs to meet targets, the implications for future allocation and implementation strategy are derived.

### **2.1 Trend in the Level and Composition of Expenditure**

Current expenditure by GO Punjab on social sectors is estimated at Rs 13.7 billion for 1991-92, representing 37% of total current expenditure. This share is expected to increase in 1992-93 to 40 percent. The major component of expenditure is education, with a share of 77%, followed by health at 17 percent. Within education, the dominant share of 56% is that of primary education while, in health expenditure, hospitals consume almost 82% of the sectoral budget.

In development expenditure, the total outlay on the social sectors was Rs 4.5 billion in 1991-92, equivalent to 43% of the provincial ADP. Sectoral shares are 27% for education, 42% for public health (water supply and sanitation) and physical planning and housing and 30% for health. Within the education sector, 13% of the development allocation has been made to primary education and 34% to secondary education. In the health sector, the largest share at 25% has been given to the rural health program followed by 24% for medical education and training and 23% for construction of hospitals.

The analysis of the trend in development expenditures is a useful exercise in the sense that it provided a better understanding of the distribution of expenditures allocated to individual services within the social sector. In the next section, we discuss the adequacy of development expenditures in the social sector in relation to the Seventh Five-Year Plan targets.

## **2.2 Adequacy of Development Expenditures in Relation to Targets**

Although there has been some increase, at least in the initial stages of the Seventh Five -Year Plan (1988-93), in the development allocation for most of the social sector, these need to be analyzed with regard to the extent of achievements in relation to the targets in the Seventh Five -Year Plan. Such an analysis will help us make recommendations as to the amount of additional expenditures that will be required.

Table 1 presents the results of the extent of the shortfall of the development expenditures in relation to the Seventh Plan targets for GO Punjab<sup>2</sup> during the plan period (1988-89 to 1992-93) for the three important services of the social sector, namely, education, health, and public health services.

An analysis of Table 1 reveals that, in the basic health sector, the actual development expenditures, in real terms, are likely to be 73% of the Seventh Plan target. On the other hand, the expected achievement in the education sector is only 41 percent. This large shortfall is likely to occur even after allowing for the quantum jump in allocations in 1992-93 due to SAP.

As for the physical planning and public health services, the development expenditure is likely to be about 68% of the target. Altogether, total development expenditure by GO Punjab is estimated at 65% of the Seventh Plan requirements. This implies that within the available resources, the provincial government has attached higher priority to allocations for health, public health and physical planning and housing and a lower priority to education.

## **2.3 Perspective Plan Targets and Required Changes**

Development expenditures by the GO Punjab in 1992-93 are not based on any targets for enrollment ratios; health and water supply coverage, etc. As such, the rationale behind these allocations is not clear. We have, therefore, determined the

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2 The provincial target is taken as the national target multiplied by the population share of Punjab province as provincial ADPs are largely allocated on a population basis

**TABIE 1**

**ADEQUACY OF DEVELOPMENT EXPENDITURE BY GOVERNMENT  
OF PUNJAB IN RELATION TO SEVENTH PLAN TARGETS**

	<b>1988-89</b>	<b>1989-90</b>	<b>1990-91</b>	<b>1991-92</b> (R)	<b>1992-93</b> (B)
<b>Education</b>					
Current Price	1195	1218	1152	1230	3100*
Constant '87-88 Price	1 101	1054	888	872	1978
Cumulative Total					5893
Target					14425 (41%)
<b>Health</b>					
Current Price	1268	1300	1350	1380	1740*
Constant '87-88 Price	1168	1126	1041	978	1110
Cumulative Total					5423
Target					7465 (73%)
<b>Public Health &amp; Physical Planning</b>					
Current Price	1742	1551	1750	1890	3120*
Constant '87-88 Price	1604	1343	1349	1340	1991
Cumulative Total					7627
Target					11226 (68%)
<b>Total</b>					
Current Price	7450	8100	9000	10500	13858*
Constant '87-88 Price	6861	7014	6939	7445	8841
Cumulative Total					37100
Target					57084 (65%)

\* Including SAP allocations.

Sources: i) Seventh five Year Plan, Planning Commission GOP  
ii) Annual Development Programme, Government of Punjab



expenditure requirements which are consistent with the attainment of long-term targets as embodied in the national perspective plan (1988-2003.). This will enable us to analyze the extent to which the actual allocations are consistent with these requirements. We first discuss the national perspective plan targets in relation to the benchmark figures (1991-92) for three social sectors, namely, education, health and public health. We also discuss the provincial targets separately wherever they are different from the national levels. In order to comprehend the size of the social sector inputs (in physical units) viz., school, hospital, basic health units (BHUs), etc., that will be required to achieve the proposed plan targets in the social sector, we further discuss the total incremental changes necessary in these inputs up to the end of the plan period. Knowledge of the physical incremental change will also enable us to shed light on the viability of these target figures as stipulated in the perspective plan. Table 2 reports the benchmark and perspective plan targets, while Table 3 summarizes the size of the total incremental changes required in the social sector inputs.

In the case of basic social services e.g., primary education (both male and female), rural water supply and sanitation (RWSS), and urban water supply (UWS), the plan proposes a 100% coverage in these facilities as shown in Table 2. It is interesting to note that the enrollment target rates for males are significantly higher than the corresponding female rates. Comparing these target figures with the benchmark values, it is clear that the differences between them are quite large in most cases. This is particularly true for females at all levels of school in which case it would require at least a 5% or more annual compound growth rate (ACGR) in schools in order to achieve the desired perspective plan enrollment targets. In fact, for female middle schools at the national level, over 11% ACGR would be required to achieve [the target. The ACGR figure required for increase in coverage by rural sanitation is even larger at over 15.7 percent.

Before discussing the actual expenditure requirements and their ensuing financial implications in achieving the perspective plan targets in the social sectors, we first examine the physical magnitude of the annual incremental changes in these

**TABLE 2**

**NATIONAL TARGETS AND BENCH-MARKS  
FOR THE PERSPECTIVE PLAN**

	<b>Bench-Mark 1991-92</b>	<b>Perspective Plan Target 2002-2003</b>
<b>EDUCATION *</b>		
(Enrollment Rate)		
<b>Primary</b>	60.1 %	1 00 %
Male	75.0 %	1 00 %
Female	44.1 %	100 %
<b>Middle</b>	29.5 %	57 %
Male	38.4 %	57 %
Female	20.0 %	57 %
<b>High</b>	21.0 %	40 %
Male	28.2 %	40 %
Female	13.2 %	40 %
<b>HEALTH</b>		
Hospital Bed ** (No.)	1506	1000
Rural Health Centre (No.)	553	One per union council ***
<b>PUBLIC HEALTH</b>		
(Population Coverage)		
Rural Water Supply	44.0 %	100 %
Urban Water Supply	85.0 %	100 %
Rural Drainage	12.0 %	60 %
Urban Sanitation	55.0 %	100 %

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\* Estimated Figures

\*\* Population per bed

\*\*\* Number of existing union councils in 1991-92 is 4467.

Sources i) Seventh Five Year Plan, 1988-93 and Perspective Plan, 1988-2003.

ii) Social Action Programme, Planning Commission, GOP

services. A comparison of these magnitudes with the historical values will enable us to comprehend whether the pace at which the facilities provided in the past will be adequate enough to sustain and execute the plan. This obviously will provide us with information on the implementation capacity of the present machinery in the provincial line departments. We analyze in Table 4, the implementation capacity three years prior to SAP and then compare it with the SAP Phase I years (1993-95) requirements.

Estimates from the model reveal that the new primary school construction program will have to be expanded by almost 40% in the case of boys. Similarly, the rate of construction of new rural health centers will have to increase by over four times and, in case of hospital beds, by almost seven times.

When the percentage target figures in Table 2 are translated into physical units, we get the magnitude of quantum jumps required to achieve the stated perspective plan targets. Examining the size of such incremental changes, as reported in Table 3, it is clear that annually, on average, 2108 male primary schools and 2418 female primary schools will be needed to achieve the 100% enrollment targets by 2002-2003.

As for the upper levels, the number of female high schools will have to increase almost two and a half times the benchmark level (1750), while for female middle schools an increase of over 130% will be required from 1991-92 to 2002-2003 to achieve the targets stated earlier. In basic health, the number of rural health centers (RHU) will have to show an eight fold increase while the increase in the number of hospital beds is over 100 percent. Further, 292 basic health units (BHU) will have to be constructed to meet the target. With an existing 19.8 million population coverage, the plan target anticipates to provide rural water supply (RWS) to an additional 36.3 million people by the end of year 2003. Rural drainage scheme (RDS), on the other hand, will have to cover 26.2 million more people by the end of the planned period.

**TABLE 3****QUANTUM INCREMENTAL CHANGES REQUIRED IN SOCIAL  
SECTOR INPUTS TO ACHIEVE PERSPECTIVE PLAN TARGETS IN PUNJAB**

Sectors / Years	1991-92	2002-2003	Cumulative Increase	Average Annual Increase (1991-92 to 2002.03)	(Number)
					Cumulative% Increase (1991-92 to 2002-03)
<b>EDUCATION</b>					
Primary School Male	32154	55339	23185	2108	72 %
Primary School Female	29661	56260	26599	2418	90 %
Middle School Male	7059	11477	4418	402	63 %
Middle School Female	4740	10975	6235	567	132 %
High School Male	4462	15344	10882	989	244 %
High School Female	1 750	5924	4174	379	239 %
Inter College Male	61	108	47	4	77 %
Inter College Female	50	108	58	5	11 6 %
Degree College Male	111	11 1	0	0	0 %
Degree College Female	77	77	0	0	0 %
Vocational Training College	221	326	105	10	48 %
Polytechnic College	21	40	19	2	90 %
Teachers Training College Male	25	32	7	1	28 %
Teachers Training College Female	9	32	23	2	256 %
<b>HEALTH</b>					
Extended Immunization Programme*	2.0	13.6	11.6	1	571 %
Basic Health Unit: Rural	2465	2757	292	27	12 %
Health Centre: Rural	296	2757	2461	224	831 %
Hospital Bed	29254	89034	59780	5435	104 %
<b>PUBLIC HEALTH</b>					
Water Supply: Urban*	17.7	33.0	15.3	1	86 %
Water Supply: Rural'	19.8	56.1	36.3	3	1 84 %
Drainage Scheme: Rural*	7.5	33.6	26.2	2	351 %
Sewerage Scheme: Urban*	11.5	33.0	21.5	2	188 %

\* Population covered in millions.  
Source: Derived By Consultants.

**TABLE 4**  
**ANNUAL CHANGE REQUIRED IN SOCIAL SECTOR INPUTS \***  
**IN PUNJAB**

Sectors\Years	(Number)					
	HISTORICAL			REQUIRED		
	989-90	1990-9-1	1991-92	1992-93	1993-94	1994-95
<b>EDUCATION</b>						
Primary School Male	1082	1122	1164	1627	1709	1796
Primary School Female	2102	2296	2508	1777	1884	1997
Middle School Male	391	418	446	319	333	348
Middle School Female	406	455	510	376	406	438
High School Male	462	538	625	530	593	664
High School Female	152	170	191	205	229	256
Intermediate College Male**	-1	-1	-1	3	3	4
Intermediate College Female**	.3	-2	-2	4	4	4
Degree College Male	3	4	4	0	0	0
Degree College Female	4	4	4	0	0	0
Vocational Training College	0	0	0	8	8	9
Polytechnic College	1	1	1	1	1	1
Teachers Training College Male	0	0	0	1	1	1
Teachers Training College Female	0	0	1	1	1	1
<b>HEALTH</b>						
Basic Health Unit: Rural	214	241	271	25	25	26
Health Centre: Rural	13	14	15	67	82	100
Hospital Bed	437	444	451	3115	3447	3814

\* Data on annual incremental coverage by urban and rural water supply and sanitation schemes was not available for 1989-90 to 1991-92.

\*\* Negative change is due to upgradation of intermediate colleges to degree colleges.

Sources: i) Development Statistics Punjab.  
ii) Derived by Consultants

It would appear that the required rates of expansion generally in the social sector inputs to achieve the perspective plan targets in the province of Punjab are likely to stretch implementation capacity to its limits, leading to leakages and increases in unit costs. In particular, the cumulative increase required is high in the case of female high schools, rural health centers and rural water supply and sanitation. Our model shows that in some instances, namely, primary school for females, middle schools, male high schools and rural basic health units, the rate of implementation has been much higher than required. The basic question which arises at this stage is the feasibility of achieving such large increases given resource and implementation capacity constraints.

#### **2.4 Development Expenditure Requirements**

Table 5 presents estimates of development expenditure (DE) requirements for the social sectors in constant 1991-92 millions of rupees. According to the model, required development expenditure in the social sectors of Punjab is approximately Rs 9.3 billion in 1992-93. This is expected to increase rapidly in real terms (at 1991-92 prices) at the rate of almost 10% per annum and approach Rs 23.4 billion by the terminal year 2002-03 of the perspective plan. Within this overall allocation, the cumulative sectoral share is 24% for education, 29% for health and 47% for public health (water supply and sanitation).

The largest share of development expenditure within the education sector at 50% will have to be devoted to primary education and 44% to high school education. Within the health sector, the highest priority (72%) will have to be accorded to the construction of hospitals followed by rural health centers (28%). Urban water supply will claim almost 39% of the allocations to public health followed by 38% for rural water supply and sanitation.

In terms of the overall shares of investment in the different plan periods, about 6% will be during the remainder of the Seventh Plan(1992-93), 36% in the Eight Plan (1993-94 to 1997-98) and 58% in the Ninth Plan (**1998-99 to 2002-03**). Sectoral

**TABLE 5**

**ESTIMATES OF DEVELOPMENT EXPENDITURE  
REQUIREMENTS IN SOCIAL SECTORS OF PUNJAB**

(at 1991-92 constant prices)

Sectors	(Rupees in Million)					
	1992-93	1993-94	1994-95	Average Annual		Cumulative Total 1992-93 to 2002. 2003
				8th Plan 1993-98	9th Plan 1998- 2003	
<b>EDUCATION</b>						
Primary School Male	625	656	689	726	929	8901
Primary School Female	741	785	832	885	1184	11089
Middle School Male	175	183	192	201	250	2430
Middle School Female	207	223	241	262	383	3429
High School Male	414	463	518	587	1028	8487
High School Female	160	179	200	226	393	3256
Intermediate College Male	18	19	20	22	28	267
Intermediate College Female	21	22	24	26	36	329
Degree College Male	0	0	0	0	0	0
Degree College Female	0	0	0	0	0	0
Vocational Training College	42	44	46	47	56	560
Polytechnic College	56	59	63	67	89	836
Teachers Training College Male	5	5	5	5	5	56
Teachers Training College Female	9	10	11	13	22	184
<b>Sub-Total Education</b>	<b>2472</b>	<b>2649</b>	<b>2840</b>	<b>3064</b>	<b>4406</b>	<b>39824</b>
<b>HEALTH</b>						
Extended Immunization Programme	0	0	0	0	0	0
Basic Health Unit: Rural	44	45	45	46	48	512
Health Centre: Rural	352	431	528	674	1859	13020
Hospital Bed	1820	2013	2228	2190	4130	34920
<b>Sub-Total Health</b>	<b>2216</b>	<b>2489</b>	<b>2801</b>	<b>3210</b>	<b>6037</b>	<b>48452</b>
<b>PUBLIC HEALTH</b>						
Water Supply: Urban	2079	2199	2327	2470	3276	30809
Water Supply: Rural	1179	1296	1425	1581	2539	21777
Drainage Scheme: Rural	328	377	432	504	1000	7850
Sewerage Scheme: Urban	994	1094	1204	1338	2163	18499
<b>Sub. Total Public Health</b>	<b>4580</b>	<b>4966</b>	<b>5388</b>	<b>5893</b>	<b>8978</b>	<b>78935</b>
<b>GRAND TOTAL</b>	<b>9267</b>	<b>10104</b>	<b>11029</b>	<b>12168</b>	<b>19421</b>	<b>167212</b>

Source: Derived by Consultants.

priorities will increasingly shift towards health if the perspective plan targets are to be met by the end of the Ninth Plan.

## **2.5 Reclining Expenditure Requirements**

Table 6 reports recurrent expenditure requirements of the social sectors of Punjab for attainment of the perspective plan targets. These requirements increase in real terms from Rs 14.4 billion in 1992-93 at the annual rate of 8% and approach almost Rs 30 billion by 2002-03. This implies a major buildup in recurring liabilities for sustaining the provision of social services in the province.

Within social sector recurring expenditures, the bulk (68%) will be devoted to education followed by health with a share of almost 25 percent. These two sectors are characterized by high levels of labor-intensity in comparison to other social sectors. The share of primary education within the education sector is estimated at 58 percent. Running of hospitals is expected to account for over 72 percent of the recurring allocation to the health sector.

## **2.6 Equity Consequences of Public Expenditures in Social Sectors**

The findings of the previous sections suggest that a substantial amount of public expenditure has to be incurred in the education, health and physical planning and public health services in order to improve the socio-economic conditions of the province. In fact, in this context, Helena Ribe et al (1991, p.ii), while preparing a report on SAP, writes:

*... access to basic health and education in recent years... remain inadequate... as a result, indicators for life expectancy, infant mortality, and illiteracy, continue to lag behind... . Newly built preventive health and primary education facilities are often underfunded and understaffed...*



**TABLE 6**  
**ESTIMATES OF RECURRENT EXPENDITURE REQUIREMENTS**  
**FOR SOCIAL SECTORS OF PUNJAB**

(at 1991-92 constant prices)

(Rupees in Million)

Sectors						Average Annual		Cumulative Total
				8th Plan	9th Plan	1992-93 to 2002-2003		
	1992-93	1993-94	1994-95	1993-98	1998-2003			
<b>EDUCATION</b>								
Primary School Mak"	3237	3401	3573	3763	4816	46131		
Primary School Female	2986	3165	3355	3568	4773	44687		
Middle School Male	1038	1085	1134	1188	1482	14387		
Middle School Female	697	753	812	882	1292	11565		
High School Male	675	735	822	931	1632	13473		
High School Female	257	288	321	363	633	5238		
Intermediate College Male	169	178	187	198	256	2436		
Intermediate College Female	141	151	162	174	248	2250		
Degree College Male	291	291	291	291	291	3203		
Degree College Female	202	202	202	202	202	2222		
Vocational Training College	625	648	671	696	831	8259		
Polytechnic College	61	64	68	73	97	912		
Teachers Training College Male	70	71	73	75	84	861		
Teachers Training College Female	28	31	35	40	70	577		
<b>Sub-Total Education</b>	<b>10459</b>	<b>11062</b>	<b>11707</b>	<b>12443</b>	<b>16706</b>	<b>156202</b>		
<b>HEALTH</b>								
Extended Immunization Programme	15	17	21	25	60	440		
Basic Health Unit: Rural	504	509	514	520	547	5835		
Health Centre: Rural	267	327	400	511	1408	9859		
Hospital Bed	2106	2397	2651	2964	4961	41572		
<b>Sub-Total Health</b>	<b>2952</b>	<b>3250</b>	<b>3506</b>	<b>4020</b>	<b>6931</b>	<b>57706</b>		
<b>PUBLIC HEALTH</b>								
Water Supply: Urban	574	607	642	682	904	8505		
Water Supply: Rural	166	183	201	223	358	3070		
Drainage Scheme: Rural	67	77	88	103	205	1607		
Sewerage Scheme: Urban	193	213	234	260	420	3595		
<b>Sub-Total Public Health</b>	<b>1000</b>	<b>1080</b>	<b>1166</b>	<b>1268</b>	<b>1887</b>	<b>16777</b>		
<b>GRAND TOTAL</b>	<b>14411</b>	<b>15392</b>	<b>16459</b>	<b>17731</b>	<b>25524</b>	<b>230685</b>		

Source: Derived by Consultants.

In order to alleviate the sorry state of social conditions and before undertaking large public expenditures, one has to ensure that this spending has the desired effect on the population.

In a recent paper, Aisha Ghaus (1991) argued that the expenditures incurred by different levels of government on social services may have different effects on the society based on equity grounds. In her extensive study, she (1991, p.92) noted:

*The incidence of provincial and municipal government service-related expenditure benefit is progressive (pro-poor) in Karachi and as such the public expenditure policy is instrumental in redistributing real incomes in the city. Among the most pro-poor provincial expenditures... are transport and primary education followed by medical care... . In the case of the municipal government, expenditures on primary education, public health and roads... benefit the lower income households.*

It appears that the government expenditure policies aimed at improving social services should be designed carefully to provide more jurisdictions to lower levels of governments in the provisions of some basic amenities.

## **2.7 Employment and Training Needs**

The model also estimates the annual creation of additional jobs for teachers, doctors and nurses resulting from the plan's operation. When the plan is implemented, our estimated results suggest that a total of almost 150,000 jobs will be created for primary school teachers. About 62,000 jobs will be opened up for middle school teachers while for high school teachers; the job opportunities will be almost 125,000. As for doctors and nurses, the new positions opened are in the order of about 20,000 and 23,000 respectively.

There are at least two important implications of the above discussion that may have long term ramifications on the economy and the plan. First, the plan will create

jobs directly in these sectors and this should also have depending on the size, a multiplier effect on the macroeconomy at large. The second aspect pertains to the need for training programs to prepare trained teachers, doctors and nurses in order to achieve the target. This aspect has to be carefully evaluated and looked into before one can expect the plan to have positive effects. It is clear that the training capacity for social sector personnel will have to be expanded dramatically. The model automatically throws forward the infrastructure needs and expenditures required to train these large numbers of new entrants for maintaining current standards.

## **2.8 Implications**

In terms of share in annual budgetary requirements, recurring expenditure actually dominates with a cumulative share of over 58% as compared to the share of 42% for development expenditure. This is a seldom emphasized aspect of the growth of the social sectors. Much of the focus has been on development financing. Very little attention has been devoted to providing an adequate revenue cover on a continual basis to sustain the provision of these services. This bias is clearly visible within the context of current programming.

Altogether, given the required rapid growth rates in real expenditures, both development and recurring, and the resulting jump in social sector expenditures in Punjab as a percentage of the gross regional product, the basic conclusion is that the perspective plan targets are not feasible in some of the segments of the social sectors. It is highly unlikely that resources in the public sector, either domestic or foreign, will increase at a rate fast enough to sustain the required program of investments and recurring outlays. We have demonstrated earlier that, in physical terms, it will also be difficult to increase the implementation capacity of some line agencies at the required rate and to train the required number of sector personnel. Clearly, the targets have to be scaled down to bring them within the achievable range, given projections of the likely level of sector resources and feasible implementation rates. This takes us into the sensitivity analysis of the model.

### **3. EFFICIENCY AND COST EFFECTIVENESS IN THE SOCIAL SECTOR**

The previous sectors highlighted the level and type of expenditure requirements for the social sectors to achieve the perspective plan targets. However, it is essential that, given the macro resource constraints which confront the public sector at all levels in the country, a conscious effort also be made to increase the efficiency in the utilization of available resources.

The issue of cost effectiveness of expenditures in the social sectors is, therefore, of considerable importance. It will not only help in making resources go further in achieving the target for social indicators but will also strengthen the case for lobbying for higher allocations to these sectors if it can be shown that the additional funds made available are likely to be utilized effectively. We view cost effectiveness as either achieving greater output, from a given allocation of resources or a reduction in cost of achieving a given output or in the more efficient utilisation of built infrastructure. This takes us into an examination of relationship between costs and outputs, areas of wastage, investment planning, alternative delivery mechanisms and recurring versus development expenditure.

#### **3.1 Costs and Outputs**

One of the basic issues in the context of delivery of social services is the rate of conversion from expenditures to system outputs. There are reasons to conclude that currently the delivery system for social services in different parts of the country has serious defects. In the education sectors, for example, growth in real expenditures has not been matched by corresponding growth in enrollments and eventually in the output from the system. This is highlighted in Table 7 which shows clearly that the growth rates of real expenditure (development and current) in Punjab was significantly higher than the growth rate of enrollment at the primary and secondary levels of education during the decades of the 70s and 80s. For example, real expenditures on primary education are estimated to have increased at the rate of 8.4 percent per annum while the growth rate of enrollments was only 5.0 percent. In the case of secondary education, the growth rate in real expenditures was 9.3% and the growth rate in enrollments, 5.3 percent. This

**TABLE 7**  
**GROWTH IN PUBLIC EXPENDITURE\***  
**ON EDUCATION AND ENROLLMENTS\*\* IN PUNJAB**  
**FROM 1970-71 TO 1991-92**

	<b>Annual Growth Rate of Real*** Public Expenditure</b>	<b>Annual Growth Rate of Enrollments</b>	<b>Ratio of Growth Rates</b>
Primary Education	8.4%	5.0%	0.59
Secondary Education****	9.3%	5.3%	0.56
College Education*****	2.1%	6.5%	3.09

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\* Both development and recurring expenditure

\*\* Growth in enrollment is calculated from 1972-73 to 1991- 92

\*\*\* Deflated by the implicit CDP deflator.

\*\*\*\* Combined for middle and high schools.

\*\*\*\*\* Combined for arts and science colleges.

Sources: i) Central Bureau of Education.

ii) Annual Development Programs, Government of Punjab.

divergence in growth rates implies that the degrees of cost effectiveness has been declining in the education sector over time.

### **3.2 Areas of Wastage**

Despite the limited resource availability for the social sectors, the delivery system for social services is also characterized by a high level of wastage. Perhaps the best examples of this are in the sectors of education and water supply. In the former case, the basic measures of wastage is the continuation ratio or the dropout rate.

Estimates of the net continuation ratio at the primary and secondary levels by gender in the urban and rural areas, respectively, of Punjab and Pakistan are presented in Table 8. A clear pattern is visible in these ratios. They are generally low for the rural areas for girls. For example, only about 29% of the girls enrolled in primary school and 25% in secondary schools in Punjab complete their education. The remainder drop out prior to completion.

The generally high dropout rate can be attributed to several factors including poverty, high opportunity cost of education, negative attitude especially towards girl's education and low motivation among parents to educate their children, particularly in rural areas. This again suggests that there is a need to improve the environment in schools by provision of better facilities, enhancement in the number and quality of teachers, improvement in the availability of books and class room equipment, and in the relevance of the curriculum from the viewpoint of job-creation skills.

In the context of water supply, substantial wastage is indicated by the high level of system losses in the process of distribution. For example, in Lahore alone, water system losses are estimated at over 25 percent. This is a reflection of not only poor designing and construction but also of inadequate operations and maintenance. Cost effectiveness of investments could be greatly improved if such losses could be reduced.

**TABLE 8****NET CONTINUATION RATIOS AT PRIMARY AND SECONDARY LEVEL  
BY GENDER AND REGION, 1984-85**

(Percentage)

	<b>PUNJAB</b>	<b>PAKISTAN</b>
<b>PRIMARY</b>		
<b>Urban</b>		
Boys	68	62
Girls	47	50
<b>Rural</b>		
Boys	58	42
Girls	29	28
<b>SECONDARY</b>		
<b>Urban</b>		
Boys	64	76
Girls	59	58
<b>Rural</b>		
Boys	30	35
Girls	25	18

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Source: Central Bureau of

government is indicated by the large share of supporting staff, especially in the lower grades. The level of remuneration of key sector personnel like doctors, engineers, teachers, technicians, nurses, etc., is generally very low in relation to the private sector. Thus, the cost effective strategy in this context may be to limit growth in employment and perhaps even reduce the number of staff in supporting jobs especially in the lower grades. Instead, more funds should be devoted to improving the remuneration package for key sector personnel to ensure their continuation in government services, to avoid part-time employment elsewhere and generally to raise motivation and morale. This would also contribute significantly to improving the delivery capability of the sector. This takes us the discussion of investment programming and project cycles.

#### **4. INVESTMENT PROGRAMMING**

There are certain aspects of investment programming undertaken by GO Punjab specifically in the social sectors which mitigate against effective utilization of resources. A case study approach of the ADP of GO Punjab for the fiscal year 1991-92 reveals that there were over 2,600 schemes being executed in the social sectors. The total capital cost of these schemes was about Rs 24 billion, with the cost of ongoing schemes estimated at Rs 13.1 billion and the cost of new schemes, Rs 10.9 billion. Given the total ADP allocation of about Rs 3.3 billion for these schemes, this implies that the GO Punjab is carrying a portfolio of projects equivalent to over eight times the annual allocation. On the average, therefore, it appears that a typical scheme in the social sectors takes about eight years to complete.

The long gestation period of the projects is due to the nature of investment programming by the provincial government. The basic tendency is to approve too many schemes which stretch not only the implementation capacity but also imply that a given amount of funds is spread over a large number of projects and, therefore, each project gets a smaller allocation. This tendency can be attributed largely to the politicization of the project approval process. Involvement of elected representatives at the district level and at the provincial level implies that competing claims of different regional interest and pressure groups can only be

reconciled by a large number of projects being sanctioned, with each project receiving reduced allocations.

The long run period taken to complete a typical social sector project is not a reflection of the



underlying complexity of construction in most cases, except perhaps for hospitals, high schools, rural health centers or large urban water supply schemes. Primary and secondary schools, rural health centers, rural water supply schemes, etc., can generally be executed within one to two years subject to the availability of funds. However, examination of Table 9 reveals that the average allocation, even for primary schools, is only about 45 percent of the total capital requirement. Furthermore, there is large variation in allocations. Some projects were given funds in 1991-92 equivalent to less than 1% of the cost while some projects received almost 40 percent. The difference in allocations appears to be largely arbitrary and probably a reflection mostly of the influence in provincial line departments of the potential beneficiary groups.

There are many deleterious consequences of the over-programming of investments by the provincial government. The need to carry too many schemes in the ADP means that the project preparation, design and execution capacity are stretched to their limits. This inevitably has implications on the quality of implementation. Also, the fact that schemes take so long to complete implies that there are significant cost overruns. The inflation in costs of materials and labor in the intervening period implies that the cost estimates in the original PC1 are inadequate to complete the schemes. This leads either to revisions in the PC1 which cause further delays or to only partial implementation of the schemes, thereby limiting the benefits flowing from the investments. Further, the staggered implementation of projects reduces the present value of benefits.

Altogether, there are serious problems with investment programming by GO Punjab. The tendency to carry too large a portfolio of projects will have to be limited by prescribing the maximum share of the ADP that can be allocated to new schemes in any particular year. In no sector should this share exceed, say, 10 percent. In

**TABLE 9**  
**TOTAL COST AND ALLOCATION IN 1991-92 TO SCHEMES**  
**IN THE SOCIAL SECTORS OF PUNJAB**

Sectors /Sub-sectors	Status	Total No. of Scheme	Total Cost	ADP Allocation for 1991.92	Average % Allocation of Cost	(Rs. in Million)	
						Min....	Max Allocation % of Cost
<b>Education</b>							
Primary	On-going	7	242	110	45.5	10.2.....	57.6
	New	33	5184	53	1.0	0.3.....	100.0
Secondary	On-going	210	508	192	37.8	0.9.....	100.0
	New	73	324	225	69.8	10.0.....	100.0
Teachers Education	On-going	3	14	7	50.0	23.9.....	92.3
	New	2	8	3	37.5	27.3.....	75.0
College	On-going	46	283	89	31.4	5.0.....	84.5
	New	27	140	29	20.7	5.0.....	100.0
Technical	On-going	10	100	33	33.0	17.8.....	87.0
	New	7	179	16	8.9	5.0.....	50.0
Special	On-going	8	34	16	47.1	17.8.....	82.5
Miscellaneous	On-going	12	174	120	69.0	5.9.....	100.0
	New	12	279	270	96.8	40.0.....	100.0
Scholarship	On-going	5	30	12	40.0	23.3.....	100.0
	New	4	55	55	100.0	100.0.....	100.0
<b>Health</b>							
Gen. Hospital	On-going	120	1738	268	15.4	0.3.....	100.0
	New	59	701	49	7.0	0.5.....	100.0
Medical Education	On-going	47	4292	256	6.0	0.3 .....	100.0
	New	13	186	64	34.4	5.4.....	100.0
Stipend	On-going	28	79	79	100.0	100.0.....	100.0
Miscellaneous	On-going	32	313	59	18.8	5.1.....!	100.0
	New	6	3410	3	0.1	0.03.....	33.0
Rural Health - Program	On-going	105	1338	288	21.5	0.3.....	100.0
	New	43	148	57	38.5	5.5.....	100.0
Special Institution	New	10	195	12	6.2	0.4.....	67.8
Rural Water Supply	On-going	1569	2711	852	31.4	0.3.....	100.0
	New	4	9	0.4	4.4	2.2.....	10.0
Urban Water Supply	On-going	89	950	77	8.1	0.03.....	4.9
	New	7	72	3	4.2	0.04.....	5.0
Manpower & Training	On-going	13	120	18	15.0	0.4.....	9.9
	New	2	25	4	16.0	1.2.....	10.0
Social Welfare	On-going	7	20	10	50.0	2.9.....	6.6

Source: Annual Development Programme Punjabi 991-92.

1991-92, the government of Punjab allocated as many as 95% to new schemes in primary education and 54% in secondary education in the presence of a large number of unfinished projects.

There is need also to depoliticize the process of approval and allocation of investment funds. This has not only led to a proliferation of schemes but also to investment choices that have not been made on the basis of some efficiency criteria but on considerations of regional equity or lobbying pressures. An intermediate solution would be for the provincial line departments to prepare a portfolio of projects which satisfy certain selection criteria and possess a minimum economic justification. Politicians could then choose from within this short list of projects.

In order to get some insight into the process of project selection, the next section is devoted to a discussion on project cycles.

#### **4.1 The Project Cycle**

The project cycle has five stages - identification, preparation, approval, execution and monitoring. Each stage has a number of problems which affect the degree of cost effectiveness and efficiency in the delivery of services.

**Project Identification:** Identification of individual projects is expected to be consistent with the five-year plans in which broad sectoral objectives and targets are set essentially at the federal level by the Planning Commission. Within this framework, provincial governments primarily engage in the preparation of annual development programs which are a compendium of individual projects/programs. Consistency between project choices and overall sectoral allocations remains an elusive goal.

There is, in fact, a lack of medium-term sector level investment plans at the provincial level the presence of which could minimize the problems created by the politicization of the project identification process. If, in fact, the sector investment plans could generate a short list of projects, then efforts could be made to limit the

choice of politicians from among these projects. In the absence of this, project identification will be the consequence largely of lobbying efforts with no guarantee that investments sanctioned are economically or socially justified.

A good example of sector investment planning is the recently prepared Strategic Investment Plans for Rural Water Supply and Sanitation for each of the provinces. These emphasize sustainability, community involvement, cost recovery and appropriate technology choice and are based more on a realistic assessment of future institutional absorptive abilities and financial resources and less on attainment of targets. They also lay down the criteria for selection of schemes. Implementation of these plans could greatly streamline the project identification process and contribute to more effective service delivery.

**Project Preparation:** This stage of the process usually involves the preparation of PCIs, and in the social sectors largely without reference to feasibility studies. Thus project benefits and costs are not estimated accurately.

**Project Approval:** It is estimated that each project requires a number of stages before approval. Delays are inherent. The planning and development department of the provincial government is stretched to its limits because of the preparation of too many new schemes for approval. Consequently, the quality of project appraisal is poor and very little effort is made to optimize the allocation of investments.

**Project Execution:** The basic problem is the phasing of investments. Actual allocation of funds to individual projects/programs is primarily determined by the overall availability of resources and bears little relationship to the scheduling of capital expenditures proposed in the PCIs. This leads to long delays in execution, cost overruns and frequently only partial implementation.

**Project Monitoring:** This is one of the weakest components of the project cycle. Departments are generally expected to submit project completion reports (PCIV). However, there is no post-completion inspection in the field by an independent

agency of the quality and degree of implementation or of subsequent operations. This therefore results in the absence of criteria to introduce cost effectiveness checks at the project approval stage. The establishment of independent project monitoring and evaluation units is a prerequisite for introducing a degree of accountability on the part of the executing agencies. There is a need to establish appropriate management information systems like the National Education Management Information System (NEMIS) and Health Information System (HIS) which will help greatly in monitoring performance of individual projects.

Altogether, there is considerable scope for improving the project cycle to enable identification of better projects, improved quality of project preparation, timely and proper approval and efficient implementation. This will require institutional strengthening and technical assistance to the line departments and also to the Planning and Development Department of GO Punjab and development of other delivery mechanisms.

#### **4.2 Alternative Delivery Mechanisms**

The two main line departments executing schemes are the Works Department and the Public Health Engineering Department. The Education and Health Departments also have an engineering arm. However, there are major limits to the implementation capacity of these departments and a rapidly expanded investment program runs the risk of lending itself to delays in implementation and/or higher unit costs. There is evidence that this has already happened.

One option is the involvement of private sector consultants and contractors taking on greater responsibility for project preparation and execution, and the line departments supervising and monitoring. The scale of the work should induce such private sector participation, especially by reputable firms. The development program could be partitioned into district level packages spread over three years. The size of the work then is likely to be sufficient to create economies of scale and the generation of adequate profits. In the short run, involvement of the private

sector in the planning, design and implementation of social sector schemes can bring in the badly needed professional expertise for development of the sector.

There is also a scope for involvement of beneficiary communities directly in financing, managing and operating schemes. The most promising areas for such involvement are primary education and water supply and sanitation. The benefits of community participation are numerous. These include, first, the possibility of contributions both in cash and in kind to capital and recurring costs thereby reducing public sector outlays. Second, community involvement in the identification of schemes is likely to make public investments more responsive to demand. Third, local beneficiary involvement in the management of services could improve the sustainability of investments and ensure proper operations and maintenance. High priority will have to be attached in coming years to development of NGOs and community based organizations to take on increased responsibilities in the social sectors, especially in the rural areas. This brings us to the analysis of alternative strategies for developing a social sector delivery programme.

## **5. SENSITIVITY ANALYSIS**

In order to determine whether further cost saving are possible in the estimated expenditure requirements, we have conducted the following four alternative sensitivity analyses:

- a) Lower Population Growth Rate;
  - b) Selective Privatization;
  - c) Reasonable (Feasible) Plan Targets;
  - d) Combined Strategy.
- a) Lower Population Growth Rate: In this alternative, we simply assume a lower national population growth rate. In this regard, two things should be noted. First, we assume a rate of 2.8% per annum rather than 2.6% as stipulated in the perspective plan. We believe that, given the existing high growth rate (3.1%), an assumption of 2.6% at the national level is not

realistic. Second, based on the national rate, all provincial growth rates by location/sex/age are adjusted accordingly.

- b) Selective Privatization:** For this strategy, we propose a selective privatization for four services in the social sectors, namely, primary schools by 10%, middle and high schools by 30% and hospitals by 20 percent. These rates are close to historical shares in investment by the private sector in the province and are considered achievable.
- c) Reasonable (Feasible) Plan Targets:** As discussed above, this strategy is based on the premise that some of the existing perspective plan targets are excessively high and hence, do not provide realistic bases for estimates of expenditure requirements of the social sectors of Punjab. For instance, even after more than doubling the existing growth rate of male high school construction program, the desired target for enrollment rates as proposed in the plan for this sector is not achieved. We, therefore, argue that such a high target is not feasible under the present conditions and, thus, a limit is imposed under this strategy on the growth rate of the school construction program such that it cannot exceed more than twice the existing rate. In the case of RWS and RDS, we allowed the population coverage to grow no more than four times the existing growth rate of the relevant population category.
- d) Combined Strategy:** In this strategy we simply combine the above three alternatives into one model simulation, with the exception that we now assume an even more realistic population growth rate of 2.9% at the national level.

Comparing the total estimated development expenditure requirements of the baseline model to that of the other three strategies, we find from Table 10 that combined alternatives provided the largest savings to the extent of about Rs 73 billion, over the eleven years of the plan. As for total recurring expenditure requirements, a cumulative savings of about R5 48 billion will be generated by

**TABLE 10**  
**CUMULATIVE EXPENDITURE REQUIREMENTS**  
**OF GOVERNMENT OF PUNJAB IN DIFFERENT SCENARIOS**  
**1992-93 TO 2002-03**

Scenario	Development Expenditure	Recurring Expenditure	(Rs. in Billion)
			Total Expenditure
Baseline	167.2	230.7	397.9
Lower Growth Rate	131.9	207.8	339.7
Privatisation	133.3	207.7	341.0
Feasible Targets	144.3	223.4	367.7
Combined	94.4	182.8	277.2
		<b>Savings*</b>	
Lower Growth Rate	35.3	22.9	58.2
Privatisation	33.9	23.0	56.9
Feasible Target	22.9	7.3	30.2
Combined	72.8	47.9	120.7

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\* In relation to (he baseline Scenario.  
Source: Derived by Consultants.



adopting the combined strategy. The savings in this context should best be described as reduced expenditure under more realistic planning scenarios than savings per se.

## **6. RECOMMENDATIONS**

In this paper we have developed an investment plan for the social sectors of Punjab which is pragmatic in character and based on cost effective approaches. Wherever feasible, this plan aims to achieve long-term service coverage targets as contained in the perspective plan of GOP. In other sectors, it limits investments to the attainable implementation rates and projected levels of resource availability. In this context, the issue of cost effectiveness is extremely important. In the following, we highlight the implications of the investment plan followed by our recommendations in the areas of cost effectiveness.

### **INVESTMENT PLAN**

#### **6.1 Level of Development Expenditure**

In 1992-93, the proposed plan envisages a total development outlay of over Rs 9 billion on social sectors by GO Punjab. The actual allocation (ADP + SAP) is Rs 8 billion. Therefore, future allocations will have to be increased. However, there is over and above allocation in the SAP sectors (primary education, teacher training, rural health and rural water supply and sanitation). Required expenditure is Rs 3.3 billion while the actual allocation by GO Punjab in these sectors is Rs 4.7 billion. However, this increase has been achieved by reducing the regular ADP and diverting most of the proposed expenditure through SAP. In the absence of firm commitments, especially from the donors, it is not clear whether the target level of expenditures will be achieved.

#### **6.2 Changes in Sectoral Priorities**

In terms of recommended changes in sectoral priorities, our analysis reveals that GO Punjab could scale down its investment program in primary education and rural water supply and sanitation and divert the resources

released to secondary level education, construction of hospital beds and urban water supply.

### **6.3 Level of Recurring Expenditure**

The Plan also implies a buildup in reclining liabilities for sustaining the provision of social services in the province. In terms of share in annual budgetary requirements, recurring expenditure actually dominates with a cumulative share of almost 60% as compared to the 40% share of development expenditures. This is a seldom emphasized aspect of the growth of the social sectors. Much of the focus has been on development financing. Very little attention has been devoted to providing an adequate revenue cover on a continual basis to sustain the provision of these services. This bias is also visible within the context of current SAP programming.

The estimated growth rate required in recurring expenditure by GO Punjab on the social sectors is 6.4% per annum (in real terms). Historically, the recent growth rate (from 1988-89 to 1991-92) exhibited by these expenditures is about 4.5% per annum. Therefore, it will be necessary to sustain this buoyancy in expenditures on the social sectors. Over time, the share of the health sector in the recurring budget will also increase significantly.

### **6.4 Support from Federal Government and Donors**

Changes in provincial expenditures priorities within the ADP in favor of social sectors can be induced if there is a commitment on the part of the federal government and donors to match the higher allocations. Tills will not only orient the provincial government more toward social sectors but also enable a sizeable increase in investment outlays in these sectors. The principle of matching grants by the federal government and donors has already been accepted in the first year (1992-93) of SAP investment programming and there has been a strong response from GO Punjab. But

while the former has made an explicit allocation for this purpose in the current budget, commitments by the latter are not yet known.

## **COST EFFECTIVENESS**

### **6.5 Resource Allocation in Education Sector**

Mere expansion in the number of schools is unlikely to lead to a proportionate increase in enrollments. The problem will simultaneously have to be tackled on the demand side, especially in the case of girls. Resources may be utilized more efficiently if more and better teachers are provided leading to an improvement in the quality of instruction.

### **6.6 Reduction in School Dropout Rates**

Dropout rates from schools are generally high in the rural areas and among girls. This again suggests that there is need to improve the environment in schools by provision of better facilities, enhancement in the number and quality of teachers and in the relevance of the curriculum from the viewpoint of job-creation skills.

### **6.7 Reduction in System Losses**

Water system losses are generally high (e.g., over one-fourth in Lahore). This is a reflection not only of poor design and construction but also of inadequate operation and maintenance. Cost effectiveness of investments could be greatly improved if such losses could be avoided. The highest returns could be generated by relatively small investments in rehabilitation of these schemes coupled with better institutional and financial programs for subsequent O&M. As a whole, this highlights the need for a change in priority away from capital expenditure towards expenditure on operations and maintenance.

### **6.8 Reappropriation within Social Sector Budgets**

There is a strong case for enhancing significantly the share of non-salary heads especially for books and materials in the total recurring education

budget of the GO Punjab. The overhead component of the health sector budget is also high and there appears to be some scope for trimming it and diverting the resources to directly service related expenditures. Within the Public Health Engineering Department (PHED) budget, there is too large a share of costs on O&M of rural schemes. Efforts must be made by PHED to transfer schemes following development to the local councils or village level community based organizations.

### **6.9 Limit to Social Employment Policy in Lower Grades**

Evidence of a policy of 'social employment' being pursued by the GO Punjab is indicated by the share of over 15% of employees in BPS 1 in the social service departments. Bulk of these consist of office peons and other supporting staff. In addition, the number of junior clerks in BPS-5 also appears to be high. Therefore, a policy of limiting recruitment into these grades ought to be followed.

### **6.10 Higher Status and Remuneration to Key Sector Personnel**

A basic problem is the low remuneration of critical sector personnel. The provincial government is in direct competition with the private sector for many of these skills and if the motivation and performance level of such personnel is to be improve (thereby enhancing system delivery), then a policy of enhancing their grades will have to be followed. As such, grades of key technical staff like school teachers, doctors, nurses, hospital technicians, draftsman, sub-engineers, etc., should be raised. In addition, there is a case for introducing a special allowance for service in rural areas to induce better teachers and doctors to work in the villages of the province.

### **6.11 Depolitidzation of the Project Selection Process**

There is need to depolitidze the process of approval and allocation of investment funds. This has not only led to a proliferation of schemes but also to investment choices that have not been made on the basis of some efficiency criteria but on considerations of regional equity or lobbying

pressures. An intermediate solution would be for the provincial line departments to prepare a portfolio of projects which satisfy certain selection criteria and possess a minimum economic justification. Politicians could then choose from within this short list of projects.

#### **6.12 Preparation of Provincial Medium-Term Sectoral Plans**

The lack of provincial medium-term sector level investment plans is a major missing link in the project identification process. Such plans must be prepared to reflect, on the one hand, the overall development priorities and allocations in the national five-year plans and, on the other hand, define appropriate project selection criteria which could ensure that projects identified have adequate justification.

#### **6.13 Design of PCIs**

The general format of PCIs also does not enable proper project analysis in specific areas within the social sectors. It is necessary that sub-sector specific PCIs be designed.

#### **6.14 Project Allocations**

Actual ADP allocations to approved projects must bear a close relationship with the schedule of capital expenditure proposed in the PCIs. This is necessary to avoid implementation delays, cost overruns and frequently only partial implementation.

#### **6.15 Allocation to New Schemes**

The tendency of GO Punjab to carry too large a portfolio of projects will have to be limited by prescribing the maximum share of the ADP that can be allocated to new schemes in any particular year.

#### **6.16 Project Monitoring and Performance Measurement**

Departments are generally expected to submit project completion reports (PCIV). However, there is no inspection in the field by an independent

agency of the quality and degree of implementation. The establishment of independent project monitoring and evaluation units is a prerequisite for introducing a degree of accountability on the part of the executing agencies. There is also no database relating to performance measures. There is a need to establish appropriate management information systems to monitor performance of individual projects. Proposed initiatives like the National Education Management Information System (NEMIS) and Health Information System (HIS) will help greatly in achieving this objective.

#### **6.17 Involvement of Private Sector**

Greater involvement of the private sector consultants and contractors is recommended to take on increasing responsibilities for project preparation and execution in the social sectors. Line departments could then play an essentially supervisory and monitoring role. The scale of the work should, however, be large enough and financially attractive to induce this private sector participation, especially by reputable firms. As such, the development program in a particular sub-sector could be partitioned into district level packages inclusive of schemes for say, the next three years, and competitive bids invited for these packages. The size of the work then is likely to be sufficient to create economies of scale and generate adequate profits.

#### **6.18 Community Participation**

Community involvement in the identification of schemes is likely to make public investments more responsive to effective demand and increase cost recovery<sup>7</sup>. Also, local beneficiary involvement in the management of services could improve the sustainability of investments and ensure proper operations and maintenance. High priority must be attached in coming years to development of NGOs and community based organizations to take on increased responsibilities in the social sectors, especially in the rural areas.

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