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HARVARD UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
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BASIC RESEARCH AND IMPLEMENTATION IN DEVELOPING EDUCATION SYSTEMS

ORGANIZATIONAL STRUCTURE
AND DATA/INFORMATION FLOW
WITHIN THE EDUCATION SYSTEM
OF THE PROVINCE OF BALUCHISTAN,
PAKISTAN

Report presented by:

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"The social and economic depravation in the Province is harrowing. Vested interests, which also includes the tribal hierarchy, are deep-rooted and any change in their age-old status is unacceptable to them if it is not brought about through them and according to their wishes. The hold which they have over the people places them in a formidable position and it is difficult to bypass them as well as to accept their authority over the people. On account of this complexity the task of development and social integration in Balochistan is more difficult than in other parts of the country. The type of pressure groups and the sort of misery and backwardness which exist in Balochistan are altogether different from what is found elsewhere in Pakistan. It is, therefore, advisable to exercise greater patience to achieve the desired results". Syed Abdul Quddus

"...the stability of the political system has an important role to play and I believe that the people want to improve: if the system improves, education will flourish. There are devoted teachers and they are working in the field for the betterment of the people. With general elections, valuable people will emerge from the lower classes...let us pray for stability and for democracy and inshalah, Pakistan will prosper". Mohammad Naseer Khawaja

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EXECUTIVE SUMMARY

This Report contains a description and some elements of analysis concerning the data collection process and flow of education data and information within the formal education structure of the Province of Balochistan. The process mentioned is described at each of the levels from the school to the Ministry of Education. The responsibilities of education officials and individuals within and outside of the structure is included. Some comments are made in terms of the political procedures involved. It is stressed throughout the Report, that an extensive amount of data is available at the school level. Most of the information needed for adequate education planning is already being collected. However, this information is rarely used and more often than not remains at the school level. The information flow encounters several nodes of consolidation as the data moves up through the system. The Report includes observations and comments on the process of data collection, on the physical environment of education offices, and opinions and recommendations extracted from interviews at various levels. It is considered that it is possible to implement an EMIS project following progressive stages and targeting the District as the basic unit of the system.

INTRODUCTION

The purpose of this Report is to present the results of research on educational data collection and flow within the education structure of the Secretariat of Education of the Province of Balochistan, Pakistan. Between January 17 and March 20, 1990 interviews were conducted with Members of the Provincial Assembly, Secretary of Education, Deputy Secretary of Education for Development, Chief of Section of Education and Health of the Department of Planning and Development, Director of Schools, Deputy Director of Education for Planning, members of Statistical Cells, Directors of education projects, Divisional and District Education Officers and staff under them, headmasters, principals, headteachers, teachers, and other individuals concerned with education and data collection process such as computer operators, systems analysts, etc.

During the period of this study we travelled more than 2,000 miles over land visiting Districts and schools trying to map the flow of information and data from the school level to the Ministry of Education.

We tried to identify the key administrative, planning, and policy activities of each functional unit; made an inventory of data/information used and needed at each functional unit by activity; mapped the data flow; collected and reviewed each and every data collection instrument we came across; and obtained the qualifications of the people responsible for the different administrative and planning activities throughout the education structure.

The key questions that were asked at the interviews were the following: What information is collected? How is that information collected? What is that information used for? What do you do with it, where do you send it? , how/when? What decisions are made with that information?

It is necessary to say that at every office, District, or school that we visited, we found interest and desire for improving the system. In every instance and on every issue we found complete cooperation. Every question received an answer and no book nor paper nor file was closed to our review. My only complaint would refer to the amount of tea we had to drink.

Balochistan is divided into six Divisions and the Divisions are divided into 20 Districts. Out of the Six Divisions, only two are actually operating as such at this moment. For the purpose of our study we visited nine District headquarters and four additional villages. The villages and cities that were visited were Chaman, in Pishin District; Khajjac and Dadhar, in Sibi District, and Uthal, in Kuzdar District. The Divisional and District

Headquarters that were visited are listed below.

Divisions with Districts:

<u>Loralai*</u>	<u>Turbat*</u>	<u>Khuzdar</u>	<u>Sibi</u>
Loralai**	Turbat**	Kuzdar	Sibi**
Zhob	Panjibur	Lasbela	Ziarat**
Killa Saif Ullah	Gabadar	Kalat**	Kohlu
		Haran	Derabuti
<u>Dera Murad Jamali**</u>		<u>Quetta</u>	
Kachi**		Quetta**	
Tambo		Chagai	
Jafarabat		Pshin**	

* Divisions which are now open

** Districts visited

The present report is divided into sections. Section 1 contains a very general overview of the Province of Balochistan. The information for this Section was obtained from the interviews, the Statistical Cell of the Directorate of Schools, and from local and national newspapers and magazines.

Section 2 refers to the organizational chart by functional units of the Secretariat of Education. The information for this chart was obtained from the existing organizational charts of the Ministry of Education and complemented with information from the interviews at the Secretariat and Directorate of Schools levels. It is not a complete chart of the Ministry and Secretariat of Education for it is concerned only with those units that deal with educational data and planning. In annex I, a complete chart is provided.

Section 3 consists of an inventory of data. A list is provided on what data is collected at what level, and at the end of the section there is a calendar showing the time series and deadlines for each type of information to reach its destination or accomplish its purpose.

Section 4 includes maps of the data flow. Different maps or charts are presented. Each one was the result of a different interview and basically expresses the same process. There is no contradiction between the different maps and some are more complete than others. However it was considered a good idea to include them all to express how different people emphasize different aspects of the data flow.

Section 5 is a compilation of data collection forms. There are 98 different forms, though similarities and redundancies of data are

obvious among them. Each one has been reviewed in terms of where it is used and for what.

Section 6 provides a short explanation of some of the benefits that the introduction of a computerized EMIS can provide to administrative, planning, policy, and decision making activities.

Section 7 reviews the qualifications of some of the people responsible for the different administrative and planning activities, mentioning needs for basic training in data collection, database management, and computer operation.

Finally, section 8 deals with recommendations and a few personal observations on the system and possible directions for the implementation of an EMIS in Balochistan.

This report contains 3 annexes: Annex I contains the different organizational charts showing the complete structure of the educational system in the Province. Annex II contains each of the 98 forms (proforma) obtained at the different offices that were visited. Most of them are original forms, but some had to be copied from existing files of books. Annex III contains the actual transcripts of the interviews. Here it will be noticed that the sequence of the interviews skips some numbers. That is due to the fact that three or four of the interviews conducted were not directly related to the purpose of this study and dealt with organizational or administrative aspects of my assignment in Pakistan. Those interviews were not included in the annex. I strongly recommend reading interviews #2,4,7,11,17,22,25, and with special interest, #33.

At this point, I find it necessary to thank Mr. Nassir Amin from the Academy of Educational Planning and Management of Islamabad who accompanied me in each of the interviews, served as translator whenever it was necessary, translated the forms and reviewed the accuracy of my notes (though I must claim any and all responsibility for any misinterpretation that might appear in this report). I must also acknowledge the complete cooperation received from Mr. Sarwar Mengal, Deputy Secretary of Education for Development and from Mr. Ijaz Malek, Deputy Director of Education for Planning. They were my main contacts, and without their help this study would not have been possible.

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BRIDGES

Abbreviations Used Throughout the Report:

ADEO	Additional District Education Officer
ADP	Annual Development Plan
AEPAM	Academy of Educational Planning and Management
CDWP	Central Development Working Party
CWD	Civil Works Department
DC	District Committee
DCC	Divisional Coordination Committee
DDEO	Deputy District Education Officer
DEO(F)	Divisional Education Officer (Female)
DEO	District Education Officer
DDEP	Deputy Director of Education Planning
DSE	Deputy Secretary of Education
DSED	Deputy Secretary of Education-Development
ECNEC	National Economic Council
EMIS	Education Management Information System
MPA	Member of the Provincial Assembly
PC1	Planning Commission Proforma 1
PC2	Planning Commission Proforma 2
PC3	Planning Commission Proforma 3
PC4	Planning Commission Proforma 4
PEEP	Primary Education Expansion Project II
P&D	Planning and Development
PDWP	Provincial Development Working Party
SC	Statistical Cell
SNE	Schedule of New Expenditures
UC	Union Councils

Section 1 An Overview of Balochistan

Balochistan is not only the most rural, but it is also the most backward Province in Pakistan. However, it has had an increasingly high rate of population growth since the mid-1970s, with more than twice the national average. This has made Quetta, the Provincial capital, grow from a small town just a few years back, to a city of more than 700,000 with the increasing pressure of the Afghan refugees. It is evident in this urban setting of Quetta that even though the population has increased tremendously, the expansion of services leaves much to be desired.

The population of the Province is ethnically and linguistically mixed with Balochi, Brahvi, Pashto, and Sindhi speakers. Balochis is the largest ethnic group in the province but they predominate in the center and southern regions, while the Pathans (Pashto speakers) predominate in the north. The influx of Afghan refugees is rapidly changing this distribution.

The literacy rates and education rates of the Province are the lowest in the country and the local politics usually follow the traditional tribal patterns.

Urdu is the national language, but in 1981 according to the National Census, only 0.3% of the rural population and 7.4% of the urban population spoke Urdu.

Though Balochistan covers nearly 44% of the total area of Pakistan, it has no more than 5% of the population of the country. Since Federal resources are distributed on the basis of population, the corresponding piece of the economic cake is small.

Economically, Balochistan lags far behind the Pakistan national average, and in 1988 only around 20% of the villages had electricity. While Balochistan supplies the bulk of the nations natural gas, only the city of Quetta has been provided gas connections for house-hold use. There is very little industry to speak of in the Province and it can be said that it is not until the mid-1970s that any development money comes into Balochistan.

Poor agriculture and water supply and hardly any industrial development has meant an increasing number of migrations to other provinces.

In 1990, the administrative set-up of Balochistan includes 6 Divisions, 20 Districts, 46 sub-divisions, 99 Tehsils/sub-tehsils, and close to 7,000 villages.

The most recent Balochistan Province Educational Statistics Book, published by the Directorate of Education (Schools) in 1988,

indicates that in the 20 Districts there are 3,606 primary schools (3,091 male and 515 female), 2,311 mosque schools, 551 middle schools (481 male and 70 female), and 275 highschools (217 male and 58 female). Middle and highschools usually include the lower levels.

The same source reports a total of 13,239 primary, middle, high and mosque school teachers for boys and girls with a student population of 352,414 in primary, middle, and highschools plus 73,222 enrolled in mosque schools.

The total education budget for the year 1990 is in the order of Rs.970 million for development and recurrent budgets. Over 500 million will go into salaries.

The basic unit of the political administration of the Province are the Union Councils. There are 316 UCs in Balochistan and they are formed by elected members from the communities and Government representatives at the local levels. The Sub-Divisional Education Officer is a member of this Council.

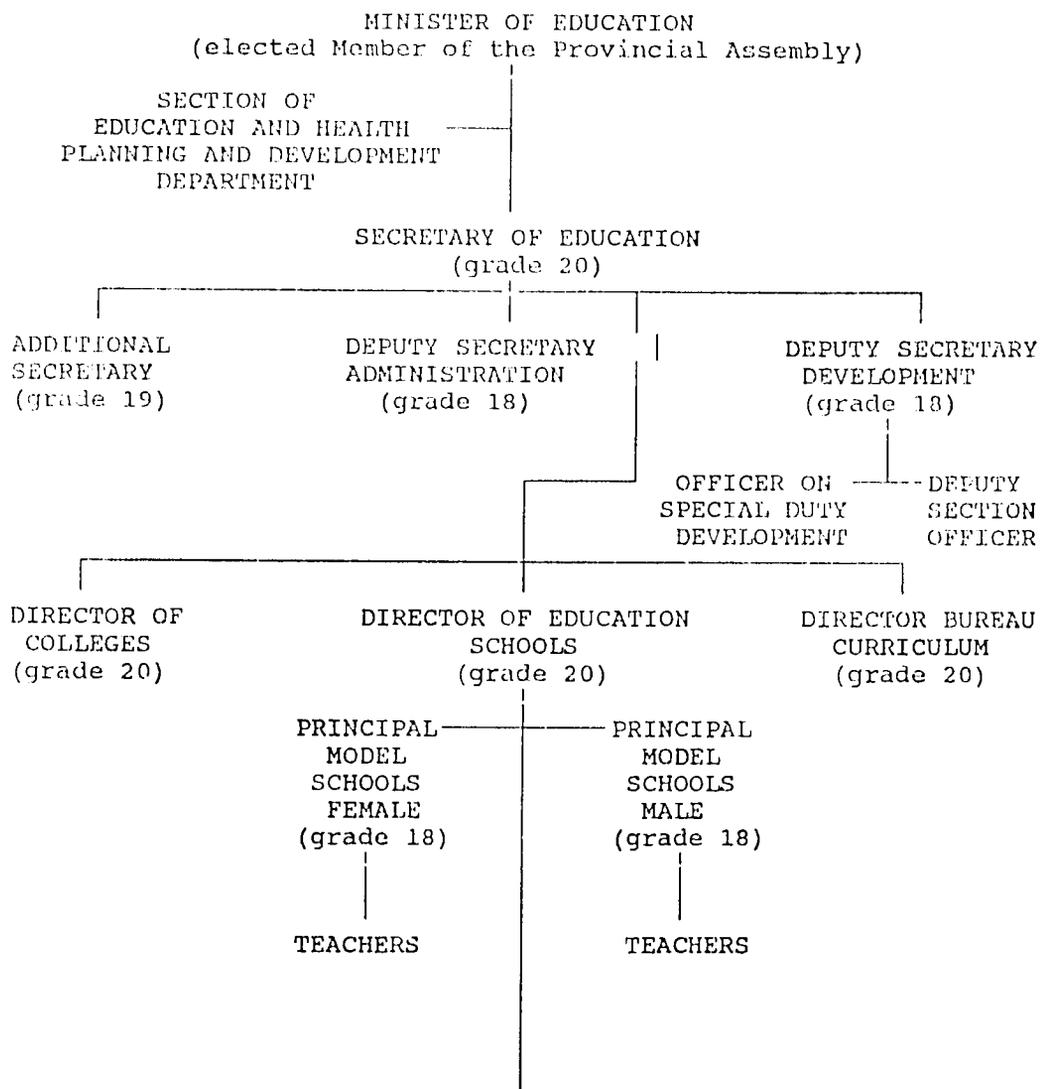
At the next level of the political administration we find the District Council. The DC is formed by elected members from the community and Government representatives from the different Departments. The Deputy Commissioner of the District, and the District Education Officer are members of this Council. The Chair of this Council is elected from among the elected members.

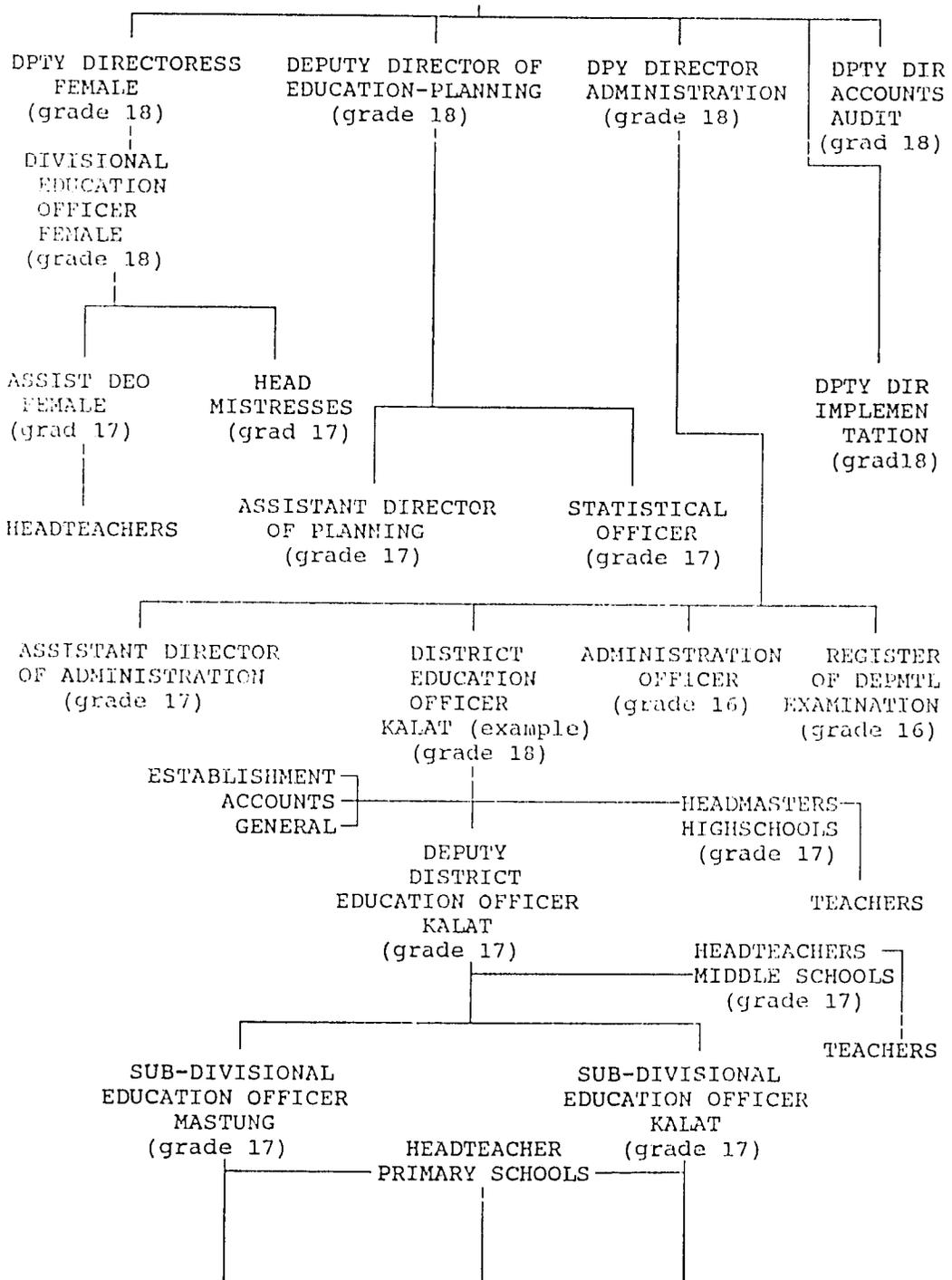
The next level of the political administration of the Province is the Divisional Coordination Committee. Again this Committee is formed by elected members from the community, and official representatives of the Government of Balochistan such as the heads of the different Government Departments, and Members of the Provincial Assembly representing their constituencies. The Division Commissioner is the Chair of the Committee, and the District Education Officer is a member.

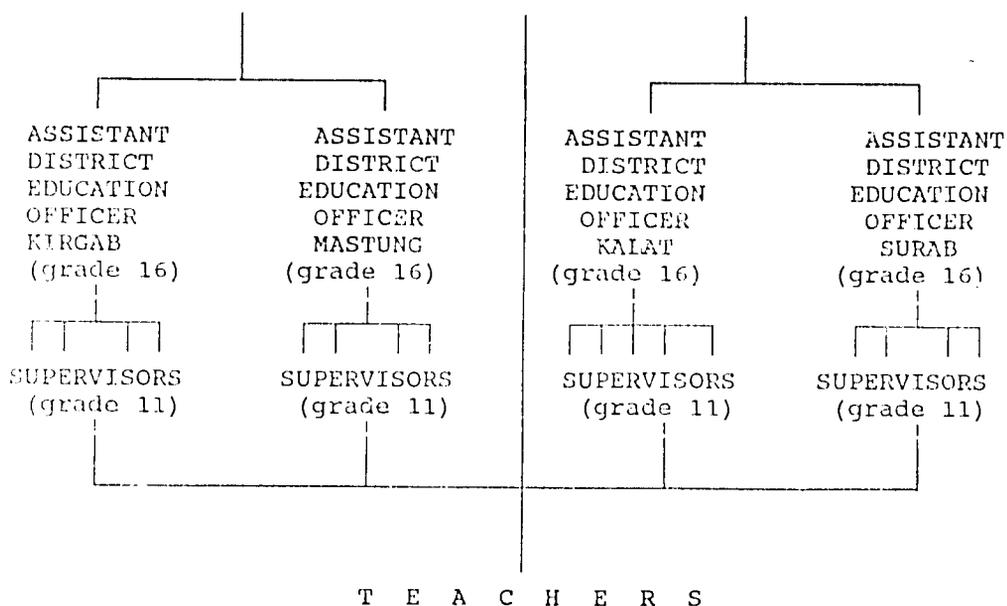
The top level of the political administration is the Provincial Assembly formed by elected representatives of the different constituencies of the Province. The Ministers of the different Government offices are elected from among the members of this Assembly. The Minister of Education is an MPA.

2.- ORGANIZATIONAL CHART BY FUNCTIONAL UNITS

This is the Organizational Chart of the Education Sector of Balochistan. It is not a complete Chart for it tries to illustrate only those functional units concerned with educational data and educational planning. VISUALLY THE CHART MAY BE DECIEVING: BE SURE TO FOLLOW THE LINES. To look at the complete Organizational Chart at Federal and Provincial levels, go to Annex #1.







Under the Directorate of Schools, there are two parallel structures: one under the Deputy Directoress Female; and the other under the Deputy Director Administration. Though both Deputy Directors are under the Director of Schools, one deals with the administration on the male side and the other deals with the administration on the female side.

It is necessary to point out here that for this study the interviews and research were concentrated on the male side of the administration. I did interview the Divisional Education Officer Female in Quetta, and visited female schools and interviewed the Headmistress of the schools visited in each District. The female structure of the system functions very similarly to the male side of the administration. The basic difference is that on the female side there are no District Education Officers in the field.

The Divisional Education Officer-Female is a touring officer. Under her there are four or five Districts. In the Districts, there are Assistant Divisional Education Officers-Female to whom the primary and middle schools for girls report. The headmistresses for highschools report to the Divisional District Education Officers -Female, and she reports to the Deputy Directoress Female. The rest of the system is the same, and the proforma and procedures followed by both the male and female sides of the administration are similar.

The Headmistresses of the girl's highschools, report directly to

the Divisional Education Officer (Female), while the Principals, and head teachers of the middle and primary schools for girls report to the Assistant District Education Officer (Female).

Under each Divisional Headquarters there is a Model Highschool. The head of a Model Highschool is called a Principal (grade 18) who reports directly to the Directorate of Schools. Also in each Division there is one Model highschool for girls. The Principal also reports to the Directorate of Schools at the level of the Deputy Directress Female.

Under the Deputy Director Administration, there are the District Education Officers, one for each District. They are in charge of the male section of the school system. Under the DEO there are the Deputy DEO, the Sub-DEO, the Assistant DEO, and the Supervisors. The Headmasters of boy's highschools report directly to the District Education Officer. The head teachers of middle schools, report to the Deputy DEO, and the head teachers of primary schools report to the Sub-DEO and to the ADEO. Some Districts do not have Deputy District Education Officers and/or Assistant District Education Officers (depending on the size of the District). In those cases, Highschools and Middle schools are under the DEO, and primary and mosque schools are under the SDEO.

Again, in middle schools there are headmasters (grade 16) who are under the administrative organization of the District Education Officers. The Principals of model highschools (grade 18) at each District are under the administration of the Directorate of Schools. Their grade is equivalent to that of the DEOs.

There appears to be very little horizontal communication within the structure, and rarely does a lower office jump the hierarchy to reach an upper office. For example: a DEO will not send his information directly to the Deputy Director of Education-Planning, or to the Statistical Cell; he will send it to the Director of Schools, who will send it to the Deputy Director of Education Planning, who will send it to the Statistical Cell. The Statistical Cell will send it back (consolidated) to the Deputy Director of Planning, who will then send it to the Director of Schools. Then, the Director of Schools will pass it on to the Secretary of Education, and from there it will go to the Deputy Secretary of Education-Development for further consolidation.

3.- KEY ADMINISTRATIVE, PLANNING, AND POLICY ACTIVITIES OF EACH FUNCTIONAL UNIT:

For the purpose of our task, we will be concerned only with those functional units which receive and deal with educational data for the purpose of planning. These units are, in hierarchical order: the Secretary of Education (and under him, the Deputy Secretary of Education-Development), the Director of Schools (and under him the Deputy Director of Education-Planning, the Statistical Cell of the Directorate of Schools (under the Deputy Director of Education-Planning), and the District Education Officer (under which are the Establishment Branch, the Accounts Branch, and the General Branch).

Each of these functional units are nodes of consolidation of data (as will be described in point #4) for the purpose of planning. We shall describe these Units starting by the District Education Office.

District Education Office:

District Education Officer

The District Education Officer (grade 18) is responsible for the administration of education in his District at primary, mosque, middle and high school levels on the male side of the education structure (except for the Model Highschools).

He is the appointing authority for primary teachers, and staff up to grade 7. It should be added at this point that Class 10 (Metric) is considered the basic level of education to enter the government service as a teacher with grade 7.

The District Education Officer is also responsible for the transfer of primary and middle school teachers and carries out inspection of all schools (up to highschool level) in his District.

The DEO consolidates the educational data of the District and is responsible for preparing the Annual Development Plan and presenting it at the District Council. He is an active member of the District Council and of the Divisional Coordination Committee.

As a touring officer, and during the inspection of school (minimum three times a year), he must assess the education process in his District and record relevant observations of his inspections in the school's Log Book.

The DEO is the disbursing officer for middle schools and the District Education Office Staff. He has the authority to suspend payments if absenteeism or irregularities are found.

He is also responsible for conducting the examinations of grades 5,8, and 10, and awards scholarships (according to scores and a fixed quota) to middle school students. Though as of the present year, this will change. Due to the importance of the Matric (class 10) examinations, the examinations for this level will be conducted by the Board of Intermediate and Secondary Education-Quetta. This will leave the DEOs, as of this year, with the responsibility of conducting only the 5th. class examinations.

Deputy District Education Officer

The Deputy District Education Officer (grade 17) is responsible for visiting and inspecting the mosque, primary and middle schools of the District a minimum of three times a year. He is responsible for assisting the DEO in the routine work of the office, and accompany the DEO on the inspections of the highschools.

The DDEO assists in the preparation of the Annual Development Plan, the Budget, and any other paper work that must be completed by the DEO. It is his responsibility to collect information from the Sub-District Education Officer and serve as a link between them and the DEO.

Sub-District Education Officer

The Sub-District Education Officer (grade 17) is responsible for drawing and disbursing the pay of staff and teachers of primary and mosque schools, and other staff such as ADEOs, supervisors, and learning coordinators.

He is responsible of carrying out the inspections of the primary and mosque schools of his sub division 2 or 3 times a year per school.

As a touring officer, he is required to spend at least ten days per month in the field.

The SDEO is responsible for collecting the educational data at the primary and mosque school level and is also responsible for conducting the fifth grade examinations every year. [At the end of fifth grade, there are two examinations: first the fifth grade examination under the responsibility of the SDEO,

and second the scholarship examinations for those continuing to sixth grade, under the responsibility of the DEO].

Assistant Divisional Education Officer

The ADEO (grade 16) is a non-gazetted officer responsible for visiting and inspecting the primary and mosque schools allotted to him. His responsibility is to report the condition of the schools to the SDEO. He must also provide a report with general information about the teachers and their performance, the enrolment, and activities of the schools.

Supervisors

The responsibility of the Supervisor (grade 11) is to visit schools and conduct in-service training for the teachers of primary and mosque schools. As part of his responsibilities, he must give model lessons to the students in addition training the un-trained teachers on how to give classes on different subjects. It is the supervisor's responsibility to inform on teacher's attendance, punctuality, and performance. The supervisor is also responsible for collecting data about the students, the teachers, the buildings, etc. whenever they visit a school. This information is provided to the SDEO concerned. He must visit each school once or twice during the 9 month academic year.

Head Teacher

The head teacher is responsible for his primary school. It is his responsibility to keep the school records up-dated and to provide the relevant information to the education officers.

The District Education Office has three sections: The General Branch, The Establishment Branch, and The Accounts Branch.

The General Branch

The General Branch is responsible for the preparation of the Schedule of New Expenditures (SNE) and the opening of posts for teachers and supporting staff from grades 1-15.

The SNE is sent through this Branch to the Directorate of Schools. Once the SNE is approved, the power for naming the staff is with the DEO. Under this Branch, the scholarships are considered and distributed by the DEO, once the approval

comes from the Federal Government. All the educational matters are administered at the DEO level under this Branch.

The Establishment Branch

This Branch is in charge of the posting and transfer of teachers, adjustment of teachers, retirements, seniorities, grading, confirmations, selections, and all other matters regarding the teachers, staff, peons, support, leaves, substitutes, and sanctions. The Establishment Branch keeps the records with the particulars of the teachers in what is called the Service Book. This book, in the case of the primary and mosque schools is kept by the SDEO; in the case of the middle schools, it is kept by the DEO; and in the case of the high schools, it is kept by the headmaster of the school.

The seniority list of the teachers and staff is prepared by the DEO under this Branch, and a copy is sent to the Directorate of Schools. The seniority list from grades 8 and above is sanctioned by the Directorate while the seniority list from grades 7 and below is sanctioned by the DEO. The Establishment Branch is also in charge of the correspondence of the DEO's office and serves as the link between the lower and upper levels of the Education Structure.

The two main proforma used by this Branch are the Revised Seniority List, and the Teacher Confirmation Form (see Annex #II, Form #49).

Accounts Branch

The Accounts Branch is in charge of maintaining the Financial Books and Records, and prepares the Expenditure Statement of the Office (see annex #II, Form #12) on a monthly basis. The Accounts Branch prepares the Budget estimate and expenditures, keeps the Expenditure Statement, the current Budget, and prepares the Proforma of List of Excesses and Surrender for the Year (See Annex #II, Form #28)

Superintendent

The Superintendent (grade 16) is the over-all in charge of the routine work of the DEO's office. He deals with the cash, prepares the budget, and looks after the books. He supervises the work of all the other clerical staff of the office of the

DEO.

Assistant

The assistant (grade 11) at the DEO's office deals with the general cases of the Administrative Branch. He looks after the accounts under the supervision of the Superintendent.

Senior Clerk

The Senior Clerk (grade 7) is responsible for helping the administration of the DEO's office in the General Branch and in the Accounting Branch. He is the main person responsible for consolidating the educational data of the district under the supervision of the DEO, who makes sure the data has been consolidated correctly.

Junior Clerk

The Junior Clerk (grade 5) is responsible for the dispatch and reception of correspondence. He has the responsibility of store keeper, and helps the accounting branch.

Deputy Director of Education Planning:

The Deputy Director of Education-Planning is under the Director of Education-Schools

The District Education Office is in charge of planning at the District level. All the District Education Officers, send in their planning documents (Annual Development Plan) to the Directorate of Education-Schools. At the Directorate of Schools, we find the office of the Deputy Director of Education-Planning (see organizational Chart page 1), which may be considered the most important planning office in the educational structure. This office receives the educational data from all the province and prepares the Provincial Annual Development Plan and Schemes which will later be sanctioned at higher levels.

This Deputy Director of Education-Planning, as mentioned above, is directly under the Director of Education-Schools and deals with the educational data and planning for mosque, primary, middle, and highschoools. Under the Deputy Director, we find the office of the Assistant Director-Planning, and the office of the Statistical

Cell. We will first look at the Statistical Cell:

Statistical Cell of the Directorate of Schools

The Statistical Cell is the office that receives the educational data from all the Districts of the Province. This office provides the proforma for data collection to the DEOs by mail. The proforma are hand delivered by the DEO to the headmasters, principals and head teachers.

When the proforma are completed, they are returned to the DEOs whom consolidate the information by District and return it to the Statistical Cell through the Directorate of Education-Schools. In the case of small Districts such as Ziarat, the consolidation of the data is done at the Statistical Cell, so the small Districts send in the raw data (not consolidated) and it is the responsibility of the Statistical Cell to summarize the information on specific forms.

It is the responsibility of the Statistical Cell to deal with requests of specific information when questions arise from Members of the Provincial Assembly or high education authorities. They have telephone contact with every district, and when specific information is needed they contact the concerned DEO.

It is also the responsibility of the Statistical Cell to produce the Annual Education Statistics Book which presents education statistics District-Wise.

The function of the Statistical Cell is to provide the Deputy Director of Education-Planning with District-wise consolidated data on education.

In the interviews with the members of this Cell, we were told that this office receives information which is not used; and they must sometimes answer questions about data which is not collected (or collected but not sent to the Statistical Cell). When this happens, they provide answers according to their "educated guess" (see annex III, Interview #4).

There are four or five persons that work in this Cell. They produce the Continued Budget (see annex #III, interview #11): the Schedule of New Expenditures information of the previous year is provided by the Deputy Secretary of Development. From that data, the Continued Budget is calculated: they take the amount of salary and put one increment on each. The increments are fixed by grade.

After the Continued Budget is prepared, the Statistical Cell is responsible for sending the Budget through the Deputy Director of Education-Planning to the Education Secretary, who sends it to the Finance Department.

Deputy Director of Education - Planning

The consolidated data from the Statistical Cell is sent to the Deputy Director of Education-Planning. The proforma received by the Statistical Cell contain 26 to 30 items. The consolidated forms sent to the DDEP contain information from the 20 Districts, consolidated into 14 items. The DDEP consolidates this information further, into a summary form that contains 7 items.

The DDEP receives information from two different channels: the system channel that comes through the lower levels of the education structure to the Statistical Cell; and the "direct" channel, which, without approval from the District Councils or Coordination Committees, reaches the DDEP directly from the community (see annex III, interview #11).

Among the responsibilities of the DDEP is the preparation of a provisional Annual Development Plan. The DDEP is responsible for identifying the resources available as informed by the Development Department at the Secretariat level. These resources are allocated in December of each year by the Financial Department according to the Public Sector Development Program (see annex III, interview #16).

It is the responsibility of the DDEP to recommend the allocation to specific schemes contained in the provisional ADP.

The financial requirements received by this office, amount to approximately Rs.400 million, but the allocation is on average Rs.200 million. This means that the requests from the lower levels of the Education structure must be cut according to priorities and it is another responsibility of this office to set those priorities.

The DDEP prepares an ADP which contains Schemes. Each scheme has a calculated cost. It is the responsibility of this office to calculate that cost and prepare a Planning Commission Proforma (PC1) (see annex III, interview #11).

The Planning Commission Proforma go from stage one (PC1) to stage four (PC4) according to the development stage of a scheme (see annex III, interview #11).

There are three categories of schemes according to their cost:

1. Schemes with a cost of up to Rs.2million are approved by the Departmental Sub-Committee chaired by the Secretary of Education in the Education Department and formed by a Departmental Representative, P&D representative, a Finance Representative and a Department of Education Representative.
2. Schemes with a cost of more than Rs.2million but less than Rs.30million are approved by the Provincial Development Working Party (PDWP) which is headed by the Additional Chief Secretary Development. The PDWP is formed by the Additional Chief Secretary, the Secretary of Planning, the Secretary of Finance, P&D, and a Representative of the Department of Education.
3. Schemes with a cost of more than Rs.30million are sent for their revision to the Central Development Working Party (CDWP), which examines the schemes and if approved, sends them for final approval to the National Economic Council (ECNEC) at the Federal level.

If it is approved by the CDWP it will certainly be approved by the ECNEC. When approved by the CDWP, an advance of the money for the scheme is provided so work can begin. When the scheme reaches ECNEC, it will not be refused.

As mentioned before, one of the responsibilities of the DDEP is to prioritize the schemes. This is done according to a formal criteria based on population, enrollment, and availability of resources, and on a "pressure" system according to the pressure groups in the different constituencies (see annex III, interviews #2,3,11,20,33). Each of the planning stages, from the DEO to the Secretariat of Education sets priorities at each of their levels according to political pressures.

The DDEP office is responsible also for releasing the funds approved for each of the schemes:

"Funds are released according to approval....From the Secretary level it comes to the Directorate of Schools...We receive the release order for each scheme". Each release order comes under two headings which are handled as two different accounts: The "Recurrent" and the "Capital"

budgets. The first one includes the staff salaries, the purchase of materials, teachers kits, etc., and the second one includes the construction of buildings and additional classrooms. This means that when the funds reach the Directorate of Schools, they divide and follow two different paths: one goes to the Director of Civil Works (for construction, etc.), and the other goes to the Director of Education (for salaries, furniture, etc.). (see annex III, interview #11).

The DDEP receives the progress reports, and it is the responsibility of this office to prepare summaries that are sent to the Secretariat of Education who, in turn, reports progress to the Ministry of Education.

In terms of the Budget responsibilities, the DDEP releases the funds provided by the Financial Department to the ADP.

There are three major kinds of recurrent budgets:

1. Schedule of New Expenditure (SNE). Includes the opening of new schools
2. Continued Budget. Includes the schemes sanctioned the year before
3. Permanent Budget. Includes schools which were opened at least three years back. At this point, teachers are permanently established. The Permanent Budget carries a 10% increase each year.

Unless the Continued Budget is approved, the people appointed one year earlier run the risk of not getting their salary. Every year the Continuous Salary must be approved; if not, salaries are stopped. The continuous budget is approved on February 1st. The SNE and the permanent budgets are approved on May 30th. The three budgets approved are released on July 1st, and the approval authority is the Constituent Assembly and the MPA. If for some reason the budget is not approved by July 1st., then the President of the Assembly gives a temporary approval for 3 months so that work can continue and salaries be paid.

Each category of the budget is compiled in separate books: The Statistical Branch and the Statistical Cell are in charge of the Continuous Budget under the Planning Branch of the Directorate of Schools.

However, the final budget, which includes all three recurrent budgets, is prepared at the provincial level and distributed

by schemes to the executing agencies (see annex III, interview #11). When a scheme is approved, it is implemented through the Education Department, the local Government Department, and the Civil Works Department.

It is the responsibility of this office to receive the release order of funds for the schemes under the headings of Recurrent and Capital Budgets, which are handled as two separate accounts. The Capital funds go to the Civil Works Department, and the Recurrent funds stay under the DDEP.

The formal criteria for prioritizing a scheme is based on population. This is the formal criteria for a PC1. If a scheme calls for the construction of 100 primary schools which are listed in order of priority in the PC1, and the allocation of funds only provides for 80, then school number 81 will be the first priority for the following year (scheme).

Each PC1 includes a time table of 12 months, 24 months, or even 36 months.

For this office, the main source of information is the DEO through the statistical cell (see interview #4) of the Directorate of Schools.

It is the responsibility of the Deputy Director of Education - Planning to prepare the Schedule of New Expenditures based on the proforma, this is done by February 3rd of each year.

Once the SNE is approved on June 30th the money is spent in one year.

The first year a school appears in Book I (SNE). This is prepared by the Planning Branch. The second year, the same school appears in Book II (Continuous Budget). This is prepared by the Statistical Branch and the Statistical Cell. After the third year, the school appears in Book III (Permanent Budget). This budget is prepared by the accounting branch.

The next level concerned with Education Planning is at the Secretariat level. In this case, it is the Deputy Secretary of Education - Development. Under the Deputy Secretary of Education-Development, we find the office of the Officer on Special Duty for Development, and the office of the Section Officer for Development. The combination of these two officers along with the Deputy Secretary of Education - Development constitute the Planning and Development section of the Secretariat of Education (different from Planning and Development Department under the Chief Ministry, see

annex III, interview #17).

Deputy Secretary of Education-Development

The office of the DSED is responsible for the financial schemes of the Education Sector and prepares the final Annual Development Plan (see annex III, interview #5). The Annual Development Plan is drawn every year and in terms of primary education it provides for the opening of schools, construction of buildings, facilities, etc. In the case of the middle schools, the ADP provides for the upgrading procedures, the construction of additional classrooms etc.

The proposals for schools are sponsored by the Directorates. There are three Directorates: Schools, Colleges, and Curriculum. The Directorate prepares a separate tentative ADP which is considered at the Secretariat level according to the allocation provided by Planning and Development. After this a PC1 (form for the preparation of schemes) is prepared and presented to the Provincial Departmental working Party (PDWP). At this level, the PC1 is cleared and Planning and Development (P&D) authorizes it and the Finance Department releases the financial resources to the Secretary, who, in turn, makes the financial resources available to the agency involved.

If construction is involved, the Civil Works Department (CWD) goes into action; if books are involved, then the resources go to the Directorates.

Civil Works receives support from the DES who reviews the construction under the direct supervision of the Chief Minister.

These responsibilities are under the Deputy Secretary of Education - Development who divides his responsibilities between the two offices under him: the Officer on Special Duty for development deals with the Annual Development Plan Schemes; and the Section Officer for Development deals with special projects, civil works, and repair of facilities.

Planning and Development approves the schemes and then passes them on for authorization by the finance department. The Additional Chief Secretary of Planning authorizes the funds for the schemes, and then Finance releases the funds to the Secretary of Education and the Secretary of Education passes them on to the Directorates. From there, the money is released to the DEO, SDEO, or headmasters directly. The Deputy Secretary of Education-Development said that the money is released for example to the DEO based on a lot of "guess work" based on the numbers of schools, teachers, etc. and the

previous budget.

Finally, at the Ministry level, we find the Section of Education and Health of the Planning and Development Department (see annex III, interview #17):

Section of Education and Health
Planning and Development Department

The Budget is received at the Provincial level from the Federal Government in the form of a "lump" amount. It is the responsibility of the Planning and Development Department of the Provincial Government to distribute the Budget according to Area Sectors.

The Section of Education and Health of the Planning and Development Department receives a draft of the Annual Development Plan from the various Departments (in this particular case, from Health and from Education). When Planning and Development receives the final allocation, the ADP draft is revised accordingly.

It is the responsibility of the Section mentioned above, to distribute the funds according to the allocation and also according to the priorities already defined by the Departments. The priorities are already set when P&D receives the ADP. What happens is that the Members of the Provincial Assembly (MPA) or the Federal Government may indicate "emergency" needs which are included in the scheme and affect the items of lower priority: "but usually the priorities from the Districts are respected"(see annex III, interview #17).

In respect to the location of new schools, there are always political considerations to take into account (see annex III, interview #33). The locations are conveyed by the District Education Officers and the Directorate of Schools, but the final location is decided by the Secretary of Education whom receives recommendations from the Minister.

This section has the responsibility of adjusting the ADP to the allocation of resources: when the allocation comes from the Federal and Provincial Governments it is usually necessary to reduce the magnitude of the schemes and reallocate. In such cases the very low priority schemes are "deleted". If there are schemes which "you can't decide to delete, then what we do is slightly reduce the allocation for different schemes and reallocate on other schools...we try not to delete but...." (see annex III, interview #17).

The approval process for the Budget is described as follows: When the PC1 is received, it is examined from a cost-benefit point of view. P&D prepares a working paper with the description, cost and observations. At this point, the schemes are conveyed to the members of the Provincial Development Working Party (PDWP) [see interview #11].

P&D approves schemes of up to a certain amount. If it goes beyond this amount then the approval must come from the Central Development Working Party. The final approval comes from the Executive Committee for the National Economic Council (ECNEC) (see interview #11).

The PC1 is revised in July-August. It should be at the P&D in June so that funds can be released in July if it passes the revision.

At Planning and Development, the Annual Development Plan is described as a document with the names of the various schemes, including aggregated cost, area, etc. The ADP is the only indication of schemes for a particular year. It is the PC1 that includes the details of the individual schemes in terms of cost, objectives, benefits, and break-up of items, and time-span involved.

The Directorate of Schools sends the information to the Secretary of Education, who sends it to the P&D. The P&D prepares the Working Papers that are sent to the PDWP, which is composed of the Additional Chief Secretary of Development and Planning (chairman), the Secretary of Finance, the Secretary of the concerned Department and a representative of the Administration Department.

80-90% of the funds allocated to a PC1 goes into the construction side (see annex III, interview #11). If a school is scheduled to be opened in a specific area, that means that that area does not have a school [but the "influential people" must be taken into account (see annex III, interview #2)].

It is the responsibility of Planning and Development to revise 140 to 170 schemes each year (each scheme is equal to one PC1, see annex III, interview #11).

In sum, the responsibilities of the Chief of Section of the Section of Education-Health in the Department of Planning and Development of the Provincial government are: to prepare the summaries for the Chief Minister, to prepare information summaries for the Federal Government, to adjust the ADPs to the Budget, to attend coordination meetings at the Provincial and Federal levels.

4. INVENTORY OF DATA/INFORMATION NEEDS OF VARIOUS FUNCTIONAL UNITS BY ACTIVITIES

There is different information at each of the functional units. As the data moves upward within the education structure from the school to the Secretariat, it goes through various stages of consolidation at the District and Divisional Headquarters, at the Statistical Cell of the Directorate of Schools, at the office of the Deputy Director of Education-Planning, and at the office of the Deputy Secretary of Education-Development.

By the time the data reaches the Section Office of Education - Health of Planning and Development Department all the specific data has been reduced and consolidated into very general provincial statistics. Each level "consolidates" the data according to the specific planning needs of that level. This will be seen in further detail in the following section when we map the data flow within the system.

In this section we will make an inventory of the type of data that exists at each of the levels starting at the lowest level which is the school and then move our way upwards to the Secretariat of Education.

INVENTORY OF DATA

School Level:

a) Information on the Students:

1. Enrollment Class-wise
2. Daily Attendance per student per class
3. Average attendance per student per class per month per year.
4. Name of the Student
5. Address of the student
6. Admission and Serial Numbers
7. Date of Admission
8. Date of Birth and Age
9. Father's Name
10. Origin
11. Father's Occupation
12. Class to which Admitted
13. Fees
14. Class in which he left the school
15. Date on which he left the school
16. Reason for leaving school

17. Conduct
18. Total Attendance in the Year
19. Dates of Attendance
20. Religion
21. Caste
22. Examination Results in Grade
23. Scholarship awards (with detail of type, date, amount)

b) Information on the Teachers

1. Enrollment per teacher
2. Name of Teacher
3. Date of Birth
4. Father's Name
5. Designation Scale
6. Qualification
7. Education
8. Date of Appointment
9. Date began service in school
10. Daily Attendance
11. Total Attendance per month per year
12. Record of Leaves and reason
13. Grade of Pay
14. Years of Service

c) General Information

1. Total enrollment
2. Total enrollment by class, by gender
3. Total daily attendance

d) Books and Registers kept at the School Level

1. Attendance Register for Students.
Contains the daily attendance and enrolment class-wise. Registers average attendance per month and total attendance in the school year.
2. Attendance Register for Teachers.
Contains the daily attendance of teachers, time of arrival and time of leaving the school. signed every day by the teacher and counter signed by the head teacher.
3. Admission Register.
Contains the general information on the student.
4. Certificate Register.
Contains the students that drop-out, leave the school, or complete their studies and receive a school certificate

5. School Stock Register
Contains the Details of purchases of articles, serial number, cost, date of purchase, number of articles, price, use and disposal, reason for disposal, sale price if any, date of original purchase, date of disposal.
6. Book Registrar.
contains details of books received and distribution by student. Condition in which it was given to the student, and condition in which it was returned.
7. Log Book
Contains comments, observations and recommendations by the visiting education officers. It is kept at the school in the custody of the head teacher, but only the inspecting officials write in it.
8. Diaries
Teachers keep diaries of their daily activities, including lessons covered and general observations and activities.

District Education Office level:

a) Information on Students

1. Class-wise enrollment by school.
2. Fifth grade examination results
3. Scholarship List

b) Information on Teachers

1. Enrollment per teacher
2. Name of Teacher
3. Date of Birth
4. Father's Name
5. Designation Scale
6. Qualification
7. Education
8. Date of Appointment
9. Date began service in school
10. Daily Attendance
11. Total Attendance per month per year
12. Record of Leaves and reason
13. Grade of Pay
14. Years of Service
15. Teacher's Reputation Report (*)
16. Teacher's Conduct Report (*)
17. Teacher's Performance Report (*)

18. Teacher's Personality Report (*)

(*) contained in the Education Department Confidential Report kept by the DEO and sent to the Directorate of Schools.

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General Information on the School

1. School Name
2. Total enrollment
3. Enrollment Class-wise
4. Number of Teachers
5. Number of Buildings
6. Number of classrooms
7. Type of Buildings and Classrooms
8. Condition of Buildings
9. Availability of Space
10. Additional physical facilities
11. Ownership of Building
12. Rent of Building
13. Description of Rooms
14. Services available

Books and Registers kept at the DEO.

1. Scholarship Register
 2. Cash Book
 3. Contingent Cash Book
 4. Pay Bill Book
 5. Dead Stock Register
 6. Consumable Article Register
 7. Register for Books
 8. Teacher's Service Book
 9. Teacher's Seniority List
 10. Teacher's Confirmation Form
 11. Detail of Schools With Enrollment and Number of Teachers
 12. Class-wise Enrollment of Students with School Name
 13. Expenditure Statement of the Office
 14. Proforma Showing School Buildings and Condition
 15. Inspection Form
 16. Annual Development Plan Proforma
 17. Scheme Progress Report Form
 18. Schedule of New Expenditure Form
 19. Teacher's Qualification Form
 20. Proforma of List of Excesses and Surrenders
 21. Proforma for Opening / Upgradation/ Construction/ Improvement of Schools.
22. Proforma Showing Budget Estimates for the Year, by item for Regular, Development, and Contingent

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Budgets.

23. Proforma Showing Particulars of Teachers
24. Proforma Showing Condition of Schools

All of the information is kept in files and controlled by the Clerk. The information is consolidated District-wise (except in the small Districts) and sent to the Directorate of Schools, where it is received by the Statistical Cell.

Statistical Cell of the Directorate of Education Schools level:

a) Information on Students:

1. Enrollment Class-wise by District by Gender
2. Total Enrollment by District by Gender
3. In the case of small Districts, complete information.

b) Information on Teachers:

1. Total Number of Teachers by District
2. Total number of trained/untrained teachers
3. In the case of small Districts, Complete information.

c) Information on the School:

1. Total Number of school and level per District
2. Total number of classrooms per District

The Statistical Cell of the Directorate of Education Schools publishes an annual book called Balochistan Province Educational Statistics.

In this book, the SC includes the following tables:

1. Number of Primary/Middle/High and Mosque Schools for Boys and Girls in Balochistan Province
2. Number of Teachers in Primary/Middle/High and Mosque schools in Balochistan Province
3. Class-wise Enrollment of Students in Primary/Middle/high/Mosque schools
4. Class-wise Enrollment of Students in Primary/Middle/High/Mosque schools by gender
5. District-wise Summaries
6. Class-wise/school-wise Enrollment by District

7. District-wise Buildings/Furniture and Facilities in Primary schools for boys and in primary schools for girls
8. Class-wise/District-wise (Science and Arts) Subject-wise enrolment of Students in Balochistan

Deputy Directorate of Education Planning:

The proforma that are sent to the Statistical Cell are consolidated into 17 items. This consolidated form is consolidated once more by District at the Deputy Directorate of Education Planning into 8 items: -District

- Thesil
- Subthesil
- Expected Enrolment
- Name of the Nearest Feeding School (for upgradation purposes)
- Distance from the nearest school (for opening of a new school)
- Availability of school building free of cost
- Availability of land free of cost
- Recommended by

The above information is obtained from the Annual Development Plans sent in by the District Education Officers. And with that information, the DDEP prepares the Annual Development Plan for the Province. This same information is what exists at the level of the Secretariat of Education.

5. MAP OF THE DATA FLOW:

As seen in the inventory of data/information that exists within each of the functional units of the education structure, the most complete data exists at the school level. At the level of the school, the data is collected by the head teacher or the head master depending on whether it is a mosque, primary, middle or highschool. The head teacher, reports the relevant data to the Subdivisional Education Officers consolidated by school. The SDEO takes this information to the District Education Office where it will be consolidated District-wise. In the case of the Headmasters of Highschools, The data is given directly to the District Education Officer, and in the case of the Model School, the information is provided directly to the Directorate of Schools (Statistical Cell).

After the District Education Officer has consolidated the data, he prepares the Annual Development Plan and Budget for the District. The ADP is presented to the District Council for amendments, and then to the Divisional Coordination Committee who will sanction the ADP after modifying it with its own amendments. From the Divisional Coordination Committee, the ADP returns to the DEO to incorporate the changes and after that he sends the information to the Statistical Cell of the Directorate of Schools, where again it will be consolidated.

From the Statistical Cell, the consolidated data will be sent to the Deputy Director of Education-Planning, where once again it will be consolidated into Provincial Data, and form part of the Provincial Annual Development Plan, The Provincial Budget, and the Schedule of New Expenditures in the form of Schemes and PCIs. At this level, the ADPs that have come from the Districts will be amended and the changes made will reflect the political pressures received by the office of the Director and Deputy director of schools. All of these are provisional for they will be sent to the Deputy Secretary of Education-Development for sanctioning according to the funds provided by the Federal Government and to the political pressures received at this level.

From the office of the Deputy Secretary of Education-Development, the ADPs, Budget, and Schemes are sent for final sanction to the office of the Chief of Section of Education-Health of the Department of Planning and Development at the Provincial Government Level, and again some changes may be made according to the political pressures received at this level.

After this entire process has been covered, the funds are allocated and follow a similar but reverse path as that followed by the data and ADPs. What follows are 11 Diagrams. All of them

contain the same basic information. They are just different ways of visualizing the data flow within the educational structure of Balochistan. These different "visions" on how the information "flows" were obtained from interviews with various District Education Officers.

Each of the diagrams is associated with an interview. It is suggested to read the interview while following the diagrams and compare them to the interviews they are drawn from. In diagrams #1 and #6, the single lines refer to the flow of information, while the double lines refer to the allocation of financial resources as they come down through the structure from the finance department to the schools.

DIAGRAM #1 (see interview #6)

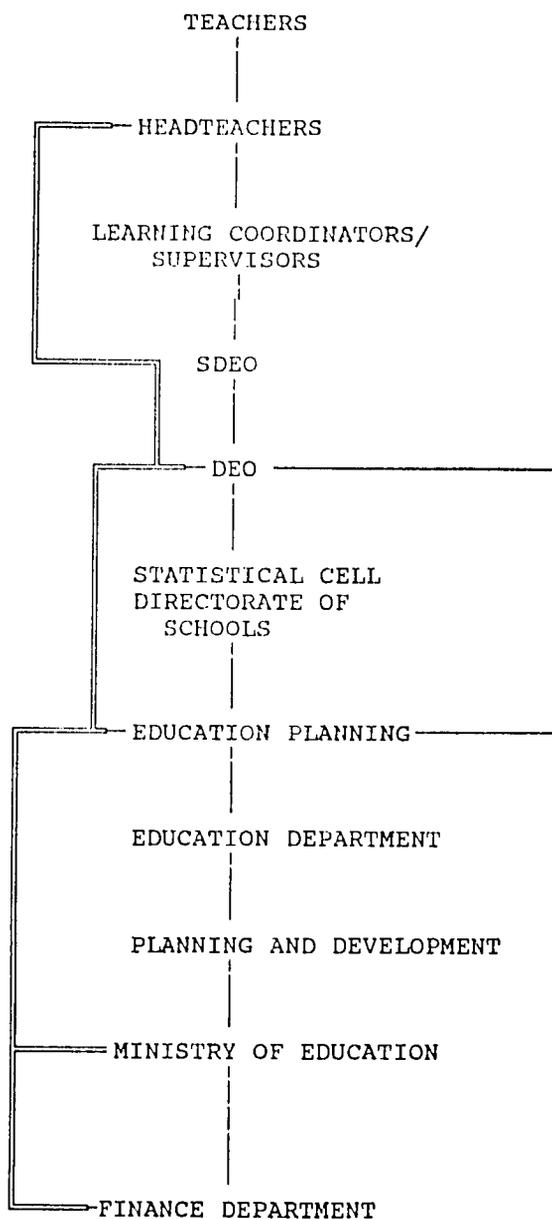


DIAGRAM #2 (see interview #11)

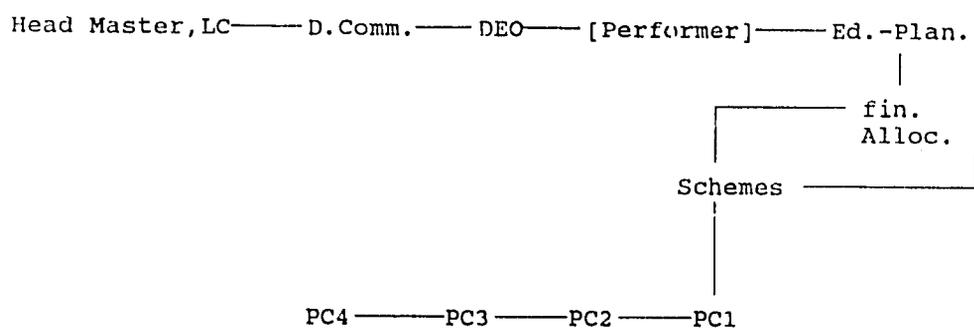


DIAGRAM #3 (see interview #11)

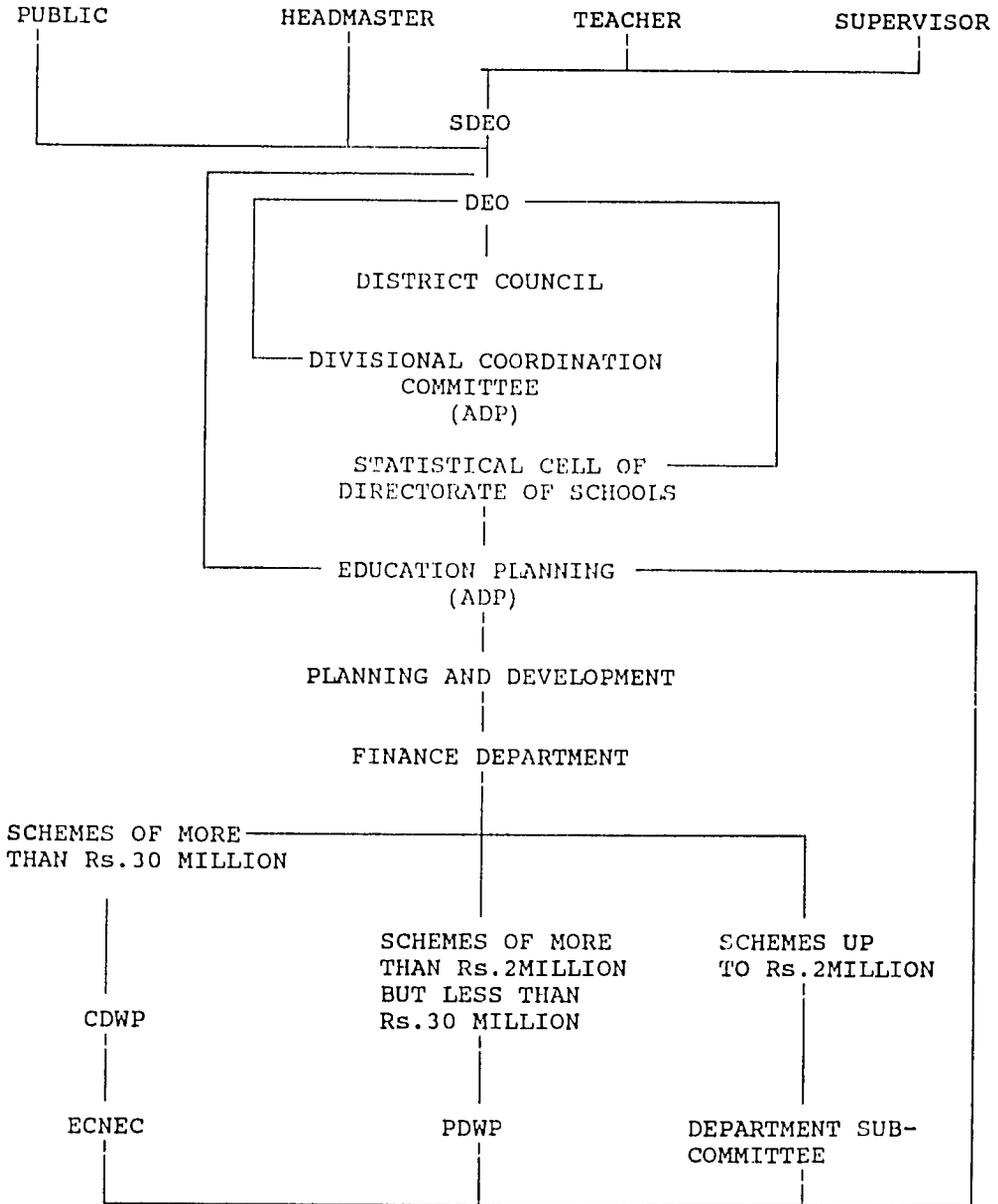


DIAGRAM #4 (see interview #16)

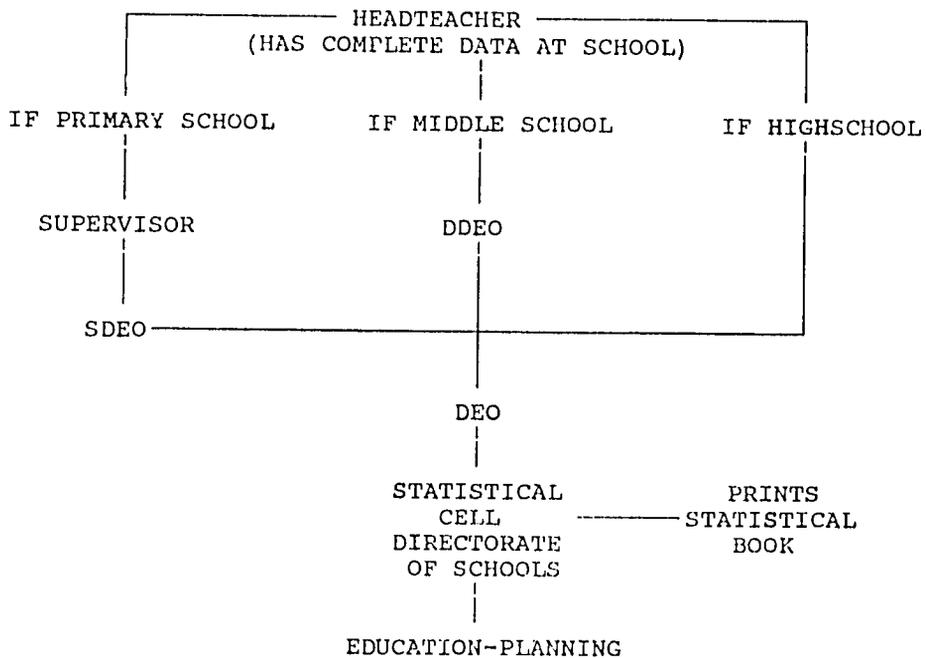


DIAGRAM #5 (see interview #17)

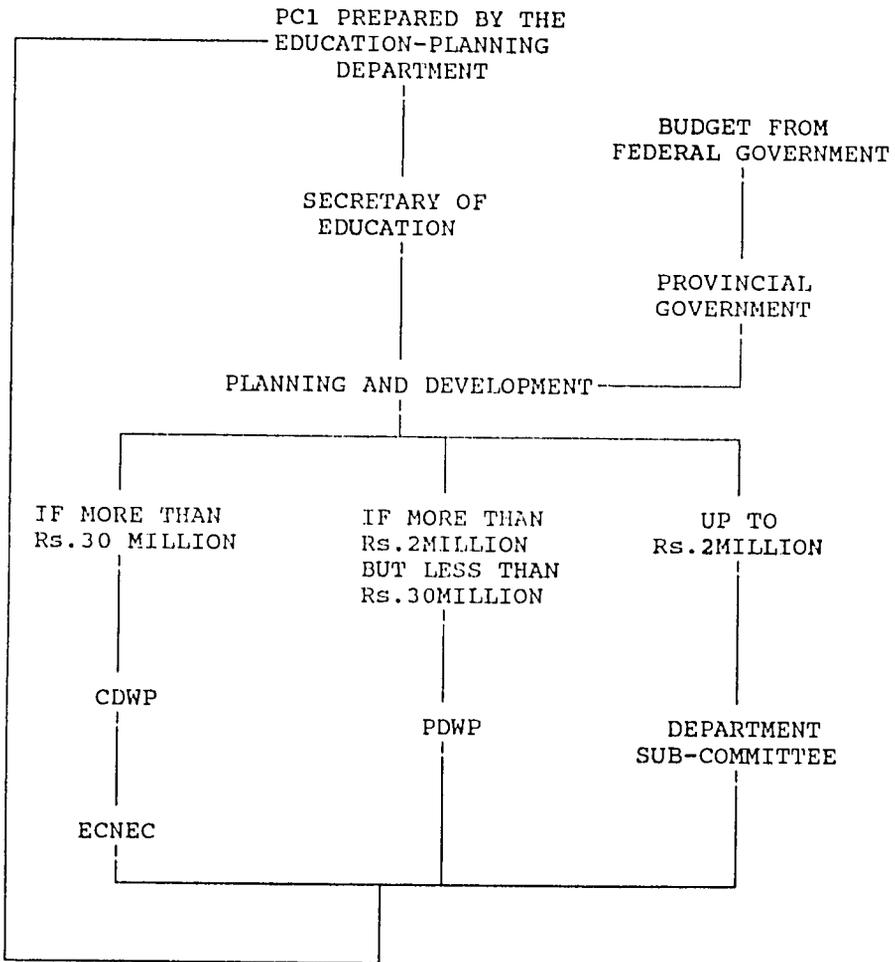


DIAGRAM #7 (see interview #25)

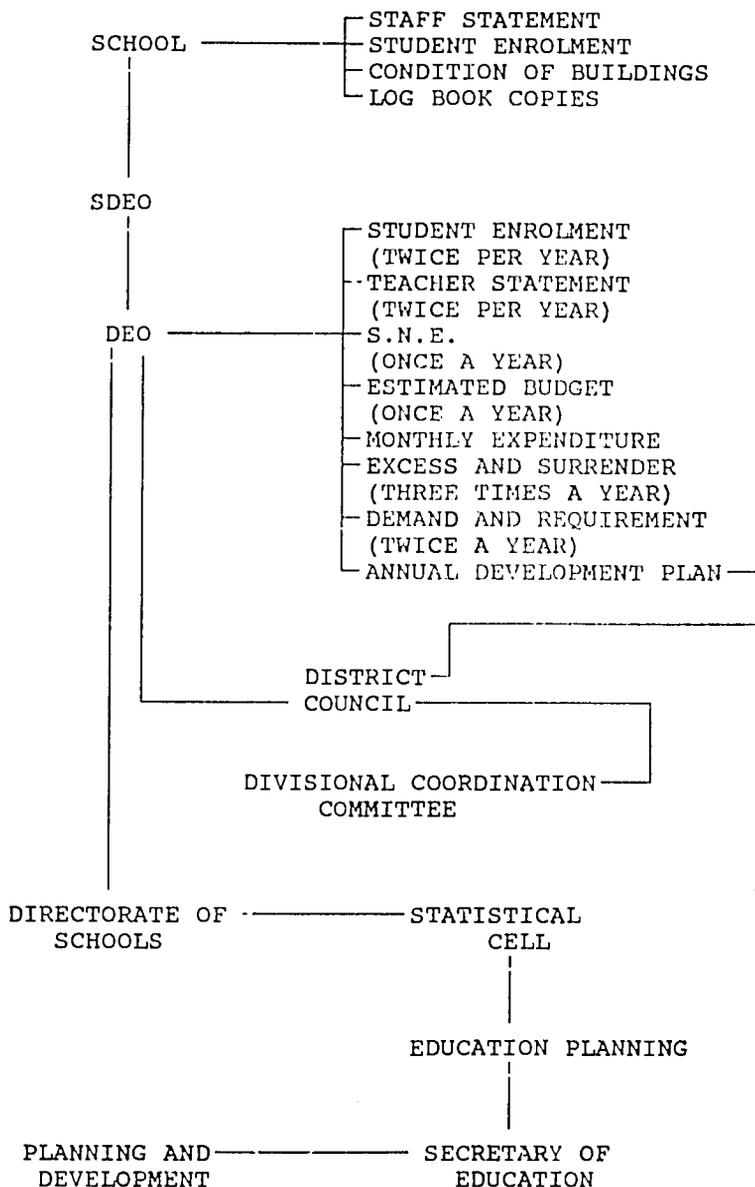


DIAGRAM #8 (see interview #26)

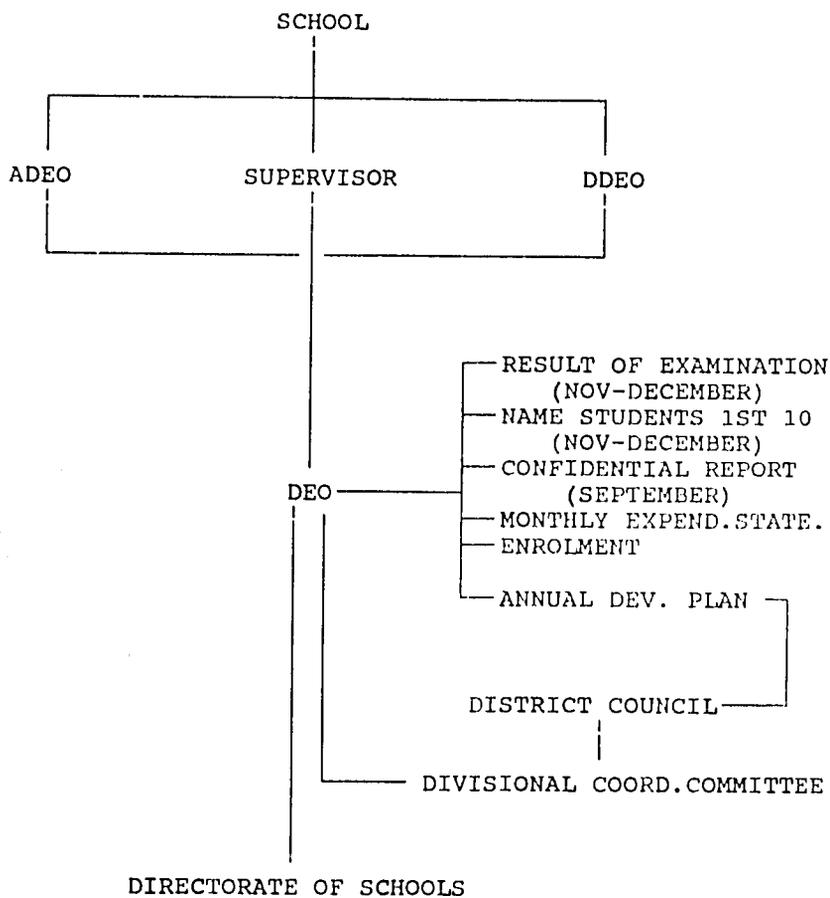


DIAGRAM #9 (see interview #29)

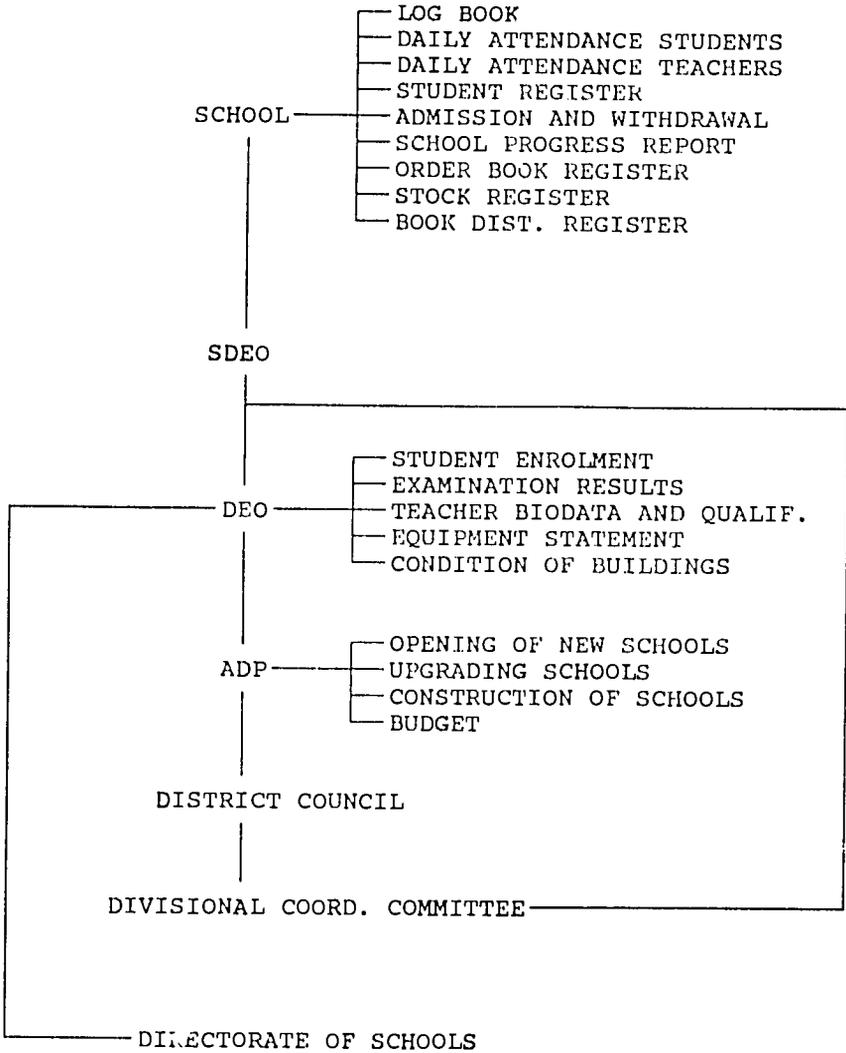
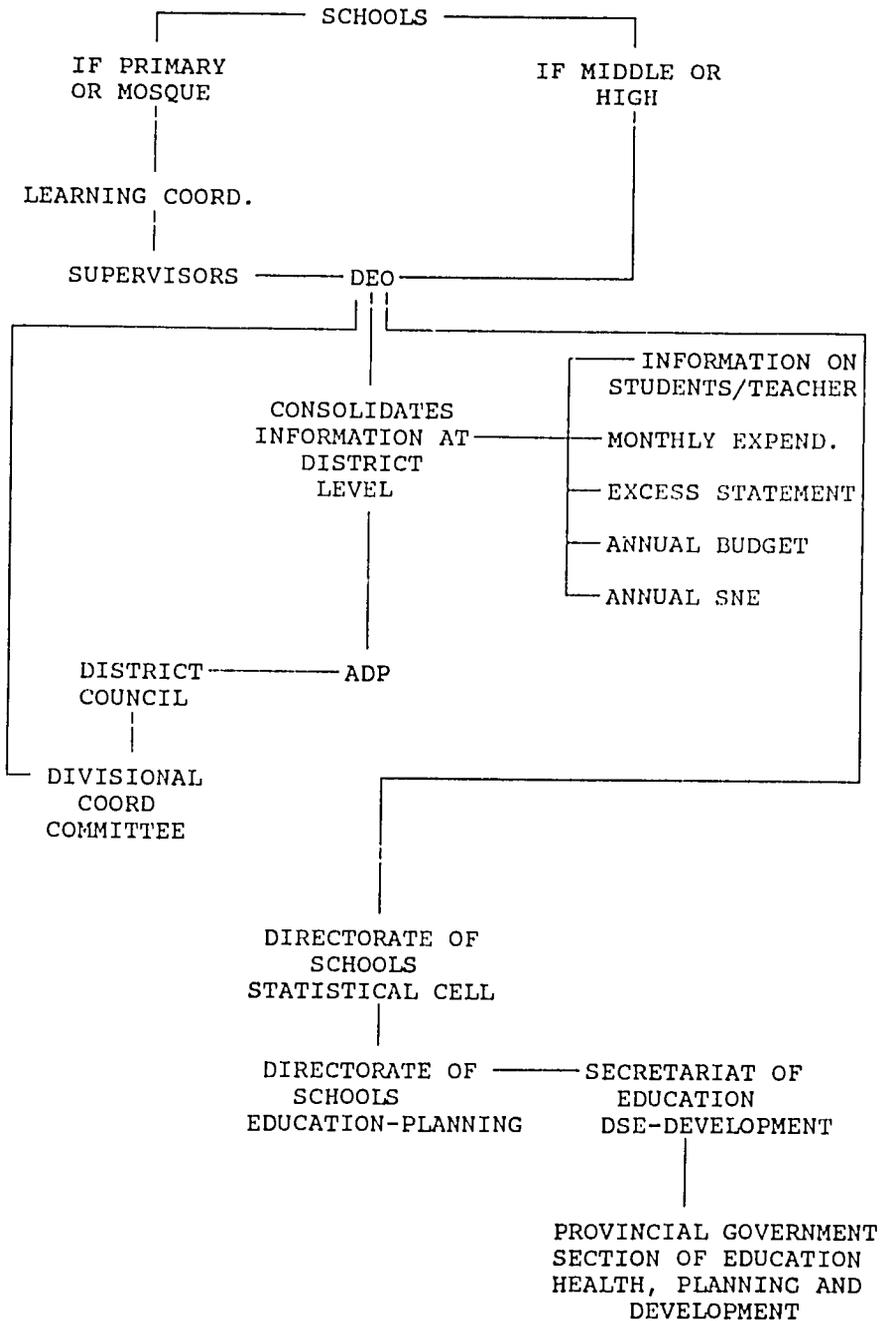


DIAGRAM #10 (see interview #30)



6. INVENTORY OF DATA COLLECTION INSTRUMENTS

Forms (proforma) were collected at every office that was visited. Some of these forms were provided in a printed format. Other were copied from the Register Books or from actual forms that were being used, but were not printed. They were drawn by hand and filled out by the education officer. As mentioned before, many of the forms are standard, and used equally in most Districts. Some of the forms were made by the DEOs, following the standard format but with a few variations (omitting or adding columns). A few of the forms are unique to a specific District. The uniqueness is not in terms of the information it contains, but in the grouping of the information. The same information is collected in practically all the Districts visited.

What follows is a list (inventory) of the information collection forms that were gathered during the visits to the education offices, Districts, and schools. The number of the form in the inventory is equal to the number of the form in annex II. The forms that are called "Standard" are those that were found throughout the Districts visited. In some cases these forms are not identical, but close enough to be considered the same. In some cases the proforma are printed and distributed by the Directorate of Schools. In other cases, they are prescribed formats but not on printed forms. The DEOs fill-out these forms by hand on paper and then the data is consolidated into typewritten formats.

FORM #	NAME OF FORM	DESCRIPTION WITH COMMENT
1	Enrollment by Teacher	Contains information on urban/rural setting, name of school, teacher qualifications and date.
2 & 3	Detail of School with Enrollment and Number of Teachers	2 & 3 are actually one form. It varies from form #1 in the sense that this one contains aggregate information on the teachers per individual school.
4 & 5	Daily attendance Register Book for Students	4 & 5 are actually one page of a Register Book containing the attendance of students and monthly average plus accumulated attendance over the school year. This Book was found to be standards in all the schools visited.

Daily Attendance
Register for
Students

This represents one page of a book that registers the attendance of teachers. The page contains the information of a month. Teachers sign in and out twice a day. It is a standard form found in all the schools visited.

Admission and With-
drawal Register

Standard form found in all schools.

Statement Showing
District-wise infor-
mation (consolidated)

This is not a standard form. it is used by the Divisional Education Officer-Female of Quetta. It contains number of schools, enrolment by school, per grade, and total enrol. and information on facilities and their condition.

Evaluation of Female
Education

This form is also used by the DEO Female showing enrolment by school and physical conditions.

Class-wise Enrolment
of Students

This is a standard Form filled by the Sub-district education officer showing class-wise enrolment and total enrolment by school.

Student Enrollment by
School

This is a standard form in Urdu showing total enrolment by school with details on student origin, religion, cast, etc.

Expenditure Statement

Standard form filled by the District Education in the Accounts Branch on a monthly basis.

School Leaving Certi-
ficate

Standard Form in Urdu prepared by the headteacher and issued to a student leaving the school. Contains general information of the student,

academic performance and scholarship details.

- 14 Semestral information by the school teacher in Urdu which contains general information on the school such as class-wise enrolment, building statement and teacher/staff information.
- 15 Teacher Proforma This is not a standard form. It is used by the DEO-Kalat to consolidate teacher information. Contains 14 items providing general information on the teachers
- 16 Proforma Showing School This form follows the standard format containing 33 items on school buildings. it is used in a similar way in all the Districts.
- 17 Student Admission Form by the school in Urdu filled in the school on the date of enrolment to class one.
Contains general information on the student, fathers name, occupation, etc.
- 18 Daily Attendance Register for Examination This is a standard form used in highschools and filled at the examination center, signed by the superintendent of the District.
- 19 Inspection Form Urdu Form used by the District Education Officer when conducting official inspections of the schools. It contains general information on the school, staff, condition of buildings and on the teachers performance and quality. The inspection includes observing the teacher perform, materials used, etc. The inspecting officer includes in the form general observations and comments.
- 20 Low Cost PC1 This is a standard form used by the Deputy Director of Education-Planing for the

December and April. Standard form.

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| 29-36 | <p>Proforma for:
 -Opening Primary Schl.
 -Opening Mosque Schl.
 -Upgradation of Primary to middle
 -Upgradation of middle to high
 -Construction of Prim-School Building
 -Construction of middle school building
 -Improvement of primary school building
 -Improvement of Middle /high school building</p> | <p>These proforma are used for preparing the District ADP and contain the items that should be covered for each case. All these proforma are sent to the DEO on a single page and the DEO copies the format for each case. The ADP is sent December of every year to the Directorate after the process of approval by the District Council and the Divisional Coordination Committee.</p> |
| 37 | <p>Proforma A: Nominal Roll for the Year</p> | <p>Forms 37 to 40 are standard Budget forms Sent by the DEO to the Directorate on October of every year.</p> |
| 38 | <p>Proforma B:
 Proforma Showing Budget Estimates under Regular /other Allowances for the Year</p> | |
| 39 | <p>Proforma C:
 Proforma Showing the Budget Estimates for The year, Under Commodities & Services</p> | |
| 40 | <p>Proforma D:
 Proforma Showing the Budget Estimates Under Pay of Contingent Paid Staff for the Year</p> | |
| 41 | <p>Schools/Education in rural areas and Enrolment in schools by Grade and Sex</p> | <p>Standard Form filled by the DEO on government and non-government schools. This is a consolidated form with total enrolment by grade and and gender where rural area is defined as a village with a population of less than 5000.</p> |
| 42 | <p>Leave Order</p> | <p>Standard Form used by the DEO</p> |

- Female of Quetta for sanctioning a leave for a teacher. Similar forms are used by all the DEOs in the Districts.
- 43 Proforma Showing the Particulars of Teachers Category-wise (of each school) Standard Form used in all the Districts. Contains General information on each teacher with qualification, sanctioned post, and name of school.
- 44 District-wise Buildings /Science Apparatus/Furniture and Other Facilities in Highschools for Boys and Girls in District as it stood on Date Standard form filled by the DEO per school containing 22 items.
- 45 Preparation of ADP for Year This is actually the cover letter for forms 29 to 36. It contains 15 items that should be covered by the ADP and it is signed by the Director of Education-Schools
- 46 Detail of Assistant Teacher Standard form containing 4 items including name of assistant teacher, serial number, name of school, and date of appointment. This is filled by the DEO and sent to the Directorate.
- 47 Memorandum This is a sample memorandum sent to the DEOs by the Director of the Primary Education Expansion Project asking for specific information on schools, learning coordinators and assistant teachers. Memos like these, asking for specific information are received frequently at the DEO's office throughout the year.
- 48 Proforma This form is used by the DEO of Sibi District. It is not the

Standard form seen in other Districts but contains similar information to that found in the inspection form (form #19). It is filled out by school and contains information of school buildings, condition, number of teachers, qualifications (consolidated by school), and enrolment class-wise.

- 49 Balochistan Education Department Confidential Report This is a standard Secret report filled out by the DEO on every teacher on a yearly basis and sent to the Directorate of Schools in January. It contains general information on the teacher, conduct, performance, personality, working habits, years in service, qualifications, etc. in all it contains 16 items on the teacher.
- 50 School Leaving Certificate Same as form #13, but with a different format and less detail. It is used in Loralai District. Form #13 is the Standard Form.
- 51 School Stock Re-school Standard form kept at the gister level by the headteacher. Contains 17 items under the headings of Purchases and Disposal.
- 52 Teacher Information This is not a standard form. It is used by the DEO Female-Quetta for recording information on individual teachers. Contains 8 items including name, marital status, qualifications, and generals.
- 53 Requirement of Teachers This is not a standard form. It is Used by the DEO Female of

- Quetta to list the total number of students, and the teacher requirements of the Division.
- 54 Number of Teachers in Rural/Urban Areas of Each School This is not a standard form. It is used by the DEO Female of Quetta to consolidate the total number of students by District/Thesil, Urban/Rural and level.
- 55 Education Statistics Book This is a very similar form to forms #44 & 48 indicating condition of building, facilities, furniture, school-wise enrolment, number of teachers, etc., but follows a different format and goes into further detail. It is filled per school by the DEO Female-Quetta.
- 56 Total number of all Students and of those who are Offering Arabian and Persian as Subjects This is not a Standard form. It is used by the DEO Female-Quetta and includes total enrolment by class, total number of students in Arabic and persian, and details of total number of students by grade receiving scholarships.
- 57 School Facilities This is not a standard Form Contains name of school and six items referring to availability of facilities in the school such as teacher accommodations, play ground, and additional space. This information is included in the standard forms seen before such as the Inspection form (form #19). It is Used by the DEO Female-Quetta.
- 58 Annual Examination This standard form is filled after the examinations of class 10. It contains 9 items, including student's name, examination results per subject and final result. It is filled by the headmaster and signed by the teacher, the headmaster and the DEO.
- 59 Annual Exam Class1 This form contains 12 items with exam results per subject and

- name of student. It is a standard form filled by the head teacher and kept at the school level.
- 60 Results of Class 5 the Scholarship Examination of Subdivision This is a standard form kept at the DEO,s office and signed by the SDEO. Contains the student's name, parents name, score, school name, number of students that took the exam, that passed the exam, that failed, and the percent of success.
- 61 Daily Attendance Board This is not a Form but a black board which was found in all the schools visited. This board followed a standard format providing teacher's name and designation, total enrolment by class, students present, absent, on leave, sick, and not registered.
- 62 Summary Statement Regarding Staff and Enrolment This form was copied at District Kachi. It contains aggregate data in 23 items by type of schools in the District. It shows number of schools, staff per category, class-wise enrolment, and total number of students. This is a standard form used in all Districts.
- 63 Statement Showing Number of Students Class-wise for Primary Schools in District Also copied at District Kachi contains 12 items consolidating information on individual schools.
- 64 Particulars of Senior English Teachers MA/Sc Copied from District Kach This form contains 6 items identifying Senior teachers by name, designation, birth, domicile,posting. A similar form is used in most Districts.
- 65 Particulars of Teach- Again copied at District Kachi

- ers of District but this is a standard form that was seen in most of the Districts visited. Contains 16 items identifying teachers by school.
- 66 Annual Development Plan for Year. Opening of Schools in District Same as forms #29 & 30, but on an individual format.
- 66A Annual Development Plan for Year. Upgradation of Middle to high standard Copied at Kachi District, follows standard format same as form #32
- 67 Revised Seniority List of Junior Vernacular Teachers of District Copied at Sibi District, this is a standard form followed at other Districts as well
- 68 Teacher Confirmation This is a standard form used by the DEO to confirm a teacher's posting at a particular school. Contains 5 items including teacher's generals, date of confirmation, and school.
- 69 Proforma of List of Excesses and Surrenders for the Year classifications Same as form #28, but copied at Sibi District, it had only selected object
- 70 Distribution of Books by Class to the Teacher Standard form controlling text distributed to the teachers. This form is filled by the headteacher.
- 70A Books issued to Students Same as form #70, but controlling textbooks issued to students. contains the signature of the students and it is filled by the teacher per class.
- 71 Result of Annual Exam Used in Sibi District, very similar to forms #58 & #59
- 72 Register of Admission and Withdrawal for School Similar to Forms #7 & #8, contains information of both forms in a single format and in english. This is the standard format used by the DEO after he consolidates the

- information from forms 7 & 8
- 73 Dead Stock Register This is a standard form kept by the school. contains 6 items regarding type, quantity, and condition of articles with date of receipt.
- 74 Admission Form This is another variation of form #72. This one is kept at the school level and is signed by the parent, the teacher and the headmaster. It is used at khajjac highschool in Sibi District.
- 75 Book Register Form Used at Khajjac Highschool, District Sibi it is very similar to form #70 registering the distribution of books class-wise. But in this case, being a highschool, the books must be returned to the librarian so the form includes date of return of the books and the signature of the librarian. [high schools do not receive free textbooks as do mosque and primary schools]
- 76 Proforma of the recording Same as previous forms Teachers teacher qualifica- tions.
- 77 Proforma Showing Date of Opening of School, Building Condition, Strength and Enrolment This is not a standard form. it is a "comprehensive" form used by the DEO of Dera Murad Jamali. It contains 42 items and is actually the combination of different standard forms used in other Districts. On an extended sheet of paper, the DEO combines in a consolidated manner information on the opening of schools by level, teacher qualifications, condition of buildings and physical facilities, staff and enrolment by class and total per grade.
- 78 Enrolment of students Again this is not a standard

class-wise by age,
Annual examination Re-
sults, and Scholarships

form but a consolidated form designed by the DEO of Dera Murad Jamali by combining the information of different standard forms. The information is given class-wise by age with total enrolment per class and in the District. It includes examination information with % of success, repetition, and drop-out rates. This was the only District visited where such rates were considered at all. This form with a total of 60 items also includes scholarship information, admission ratios, and enrolment in class 5 & 8. The information is consolidated by school and the name of the headmaster in the case of highschoools is provided.

79 Strength Register and
New Sanctioned Posts
per School

Once again this is not a standard form. Its designed by the DEO at Dera Murad Jamali and contains 20 items per school indicating school name, sanction posts of teachers by level and of the staff. As in forms # 78 and #77. it is a combination of other standard forms. The DEO fills these "comprehensive" forms in addition to the standard forms required by the Directorate of Schools. I was told that the DEO makes these forms for the benefit of his own research.

80 Existing Posts of
Teachers for the Year

Standard form with name of the primary school and the number of teachers by category plus number of peons. It includes the new posts created in the current year and the number of "old" teachers.

81 Seniority List and
Qualifications of all
the Staff

Again the DEO of Dera Murad Jamali has combined standard forms to consolidate in one proforma information on

		teachers, their academic and professional qualifications, date of appointment, mother tongue, etc. In all this form contains 23 items and is filled in addition to the standard forms seen before.
82	Proforma Regarding Teachers	Standard Form teacher appointment and qualifications by school.
83	Class-wise Enrolment of Students in Middle and Highschools	Standard Form consolidating enrolment by school
84	Number of Buildings Constructed for the District	Standard Form indicating construction, expansion and type of material with year.
85	Scholarships	This form is used by the DEO of Kalat District. It records the number of scholarships for middle schools (by gender), for highschools, intermediate schools, degree colleges and post graduates in the District.
86.	Year-Wise Enrolment For Middle and High Schools in District	This is a consolidated form to record total enrolment in District Kalat.
87.	Results of Primary School Examinations	Same as Form #60
88	Results of Matric School Examinations For the District	Also used in District Kalat. This form, though similar to other examination results forms seen in other Districts, is the first one to mention the level of Metric.
89	Results of Middle Examinations	Similar to previous Exam School result forms
90	Results of Examinations Class 5-8-10 for the year	Contains individual results of examinations with success rate oth the total of those whom presented the exam. It is similar to other forms seen, but specific for class 5,8,and

10. These are the levels at which scholarships are given. Though this information is contained in the forms seen in other Districts, at this District (Kalat) was the only place where we found the results of these three years consolidated into one form.

- 91 Scholarship Distribution for the District
Again similar to previous scholarship forms (form #85) but shows consolidated information on total scholarships awarded at middle (by gender), highschool (by gender), intermediate, degree, and postgrad. levels. This form was only seen in Kalat District.
- 92 Development Program of Education Department for District
This form, also used in Kalat District contains a summary on the number of institutions by level, and then it the number of institutions by level and by Tehsil, and finally a total number of sanctioned institutions by level for the year.
- 93 Statement Showing the Name of the School/ Number of Teachers/ Qualifications and Details of Buildings For Primary and Mosque Schools of the District
Used in Pishin District, compiles information from various of the standard forms seen before. It also contains enrolment by class 1-5 and total enrolment
- 94 Proforma Showing for Opening of New Primary School for District in Year.
Standard information contained in Annual Development Plan
- 95 Upgradation of Primary School to Middle
- 96 Proforma for Construction of Additional Classrooms
- 97 Proforma for Repair of

Primary/Middle/High
Schools in District.

Forms 95-97 are standard ADP
forms.

98

Individual Progress
Report

This form was found in a school visit in the District Loralai. It is actually a Report Card for individual students containing grades for each subject, cleanliness report, home work, religious attitude, attendance, etc. The form is signed by the supervisor and as far as we were able to see, this concept of report card is unique to this District. We were told that such a form is used in the schools of Loralai.

CALENDAR

These are the main deadlines for the data collected from the field and from different offices. It seems that the different offices "try" to hand in their information/proformas on the specific date, but there is some flexibility in the system so these dates are "approximate".

January 1	Confidential Report on Teachers is sent from the District Education Office to the Directorate of Schools
February 1	Approval of Continuous Budget
February 3	Preparation of Schedule of New Expenditures by the District Education Officers
March 15	District Education Officer receives enrolment information from schools
March 25	Statistical Cell Receives Information from District Education Officers
March 31	District Education Officer prepares Teacher Statement
April 31	Excess and Surrender Statement is prepared by the District Education Officer and sent to the Directorate of Schools
May 30	Approval of Recurrent Budget
June 30	Release of Funds for Schedule of New Expenditure
July 1	Release of approved Recurrent Budget
July-August	Revision of PC1
August 31	Excess and Surrender Statement is prepared by the District Education Officer and sent to the Directorate of Schools
August/September	Preparation of the Schedule of New expenditure by the Statistical Cell of the Directorate of

September 31	Schools Enrolment information from the Schools reach the District Education Office
October 31	District Education Office sends Budget to Directorate of Schools
November 30	Scholarship information is sent from the District Education Office to the Directorate of Schools
December 30	Annual Development Plan is sent from the District Education Office to the Directorate of Schools
December 30	Excess and Surrender Statement is prepared by the District Education office and sent to the directorate of Schools
Monthly	Expenditure Statement is prepared by the District Education Office and sent to the Directorate of Schools.

7. KEY ADMINISTRATIVE, PLANNING, AND POLICY ACTIVITIES THAT WILL BE FACILITATED BY THE INTRODUCTION OF A COMPUTER BASED EMIS

In psychology, when you are dealing with mental health, the first break-through in the recovery process of a patient comes when the patient him/herself recognizes that he/she has a problem. Once the recognition of the problem is there, the rest of the process is facilitated.

I believe this is the case of the education system and data processing in Balochistan. They have a problem, and they know it. At every interview and at every level from the school to the Members of the Provincial Assembly, the problems, deficiencies, and limitations were acknowledged.

At present the Secretariat of Education is following a rudimentary, manual system for data collection and processing with relatively low levels of analysis of the information.

Outside the Planning and Development Department and the Primary Education Expansion Project, the only technology used is that of the mechanical typewriter. And even in those instances where computers are used, the main purpose is to publish the statistical data in the Annual Statistical Book, and to produce straight forward and simple reports.

The rest of the system is completely manual, which is not bad per se, but it consumes many many hours and is highly susceptible to errors at different levels.

The monitoring systems of schemes and projects, and activities, purchases, personnel, etc., when they exist, are very rudimentary.

Handled manually, the flow of information within the system is very slow and highly inaccurate. When data is required for policy decisions and specific questions need to be answered, these answers reach the policy decision levels in weeks, sometimes months.

There exists a very limited concept of history within the system. All the data of years past is kept and stored...but very rarely consulted. For example, in my visits to the schools, after obtaining the information on enrollment for class 5 in the present year, I would routinely ask for the enrolment of class 1 in 1985.

The question would always take the head teacher or headmaster off balance. It was something he/she was never or rarely asked. The information was there, in their records and books (usually piled up in a store room) and on average it would take them 30 to 45 minutes to find it with the help of two or three assistants. In a few cases, they were not able to find the information at all though they assured me that it was there "somewhere".

At present only very simple analysis is conducted with the data: total enrolment, total number of teachers, enrolment class-wise by gender, number of students passed at 5th, 8th, and 10th class examinations, etc. Usually, after the data leaves the school it begins to be aggregated at increasing levels so that when the information reaches the planning offices there are only broad "pictures" of the Districts and the Divisions. The data is hazy, and I would add, in many cases, unreliable

8. QUALIFICATIONS FOR PEOPLE RESPONSIBLE FOR ADMINISTRATIVE AND PLANNING ACTIVITIES/TRAINING NEEDS

The post descriptions throughout the structure of education do not carry with them specific requirements in terms of qualification. So it was not possible to obtain something like a code book describing academic or practical qualifications of the personnel that would be placed in the different offices that deal with planning and that handle information.

I was told that the only academic qualification at the entry of the education structure above peon, is to have completed the Matric (class 10). After that, what counts, are years of service, performance, and political contacts.

The only thing that could be done was to interview the individuals at the different offices that deal with data and planning and ask about their specific qualifications. In some cases, people were reluctant to talk about their qualifications. It seemed that they felt threatened, or that I was questioning their capacity to perform their jobs.

Qualifications:

Office of the District Education Officer:

On average, a DEO would have a Ba. or a Bed. The same goes for the DDEO, SDEO, and the ADEO. But the basic criteria for promotion within the system is years of service. A DEO would typically move up the ranks having been a headmaster, a principal, ADEO, then SDEO, then DDEO, and finally, after 18 to 25 years, DEO.

The superintendents would typically have a highschool diploma, and some a Bachelors degree in science.

In the case of the clerks, the minimum requirement is Matric, same as for primary teachers, and in some cases they would have a highschool diploma.

Headmasters and Principals would have a Ba. or a bachelor degree in education.

Statistical Cell of the Directorate of Schools

The people that work in the Statistical Cell have a minimum academic qualification at the level of Ba. Mr. Hafiz, responsible for the Cell has a Masters in Science Msc.with emphasis in

statistics.

Mr. Maqsood Hussain, also of the SC holds a Bachelor of Arts degree, a Diploma in statistics, and has attended courses in management and computers at the Academy of Educational Planning and Management at Islamabad.

Office of the Deputy Director of Education-Planning

The DDEP, Mr. Ijaz Malek holds a Bachelors Degree in Science, a Masters Degree in Education, and a Degree in graduate studies on Education Planning and Management from the American University of Beirut.

Mr. Akbar, Assistant Director of Planning, holds a Ba and a Masters in Education.

Secretariat of Education

The Secretary of Education, Mr. Iqbal Kazi hold a Masters Degree in Science.

Mr. Noor Ahmed, Assistant to the Secretary of Education holds a BA, a Bed, and a Diploma in Planning and Management from the University of Paris.

Mr. Sarwar Mengal, Deputy Secretary of Education-Development hold a Degree in Political Science, a Bachelors Degree in Law and did graduate studies in the United States obtaining a Masters Degree in Development and Administration from Western Michigan University.

Mr. Khuda-E-Rahim, Section Officer to Development holds an MA.Bed.

Training Requirements

In terms of computer knowledge and database management software it is necessary to begin from scratch. The only two offices where it was possible to find computers operating were at the Planning and Development Department where the government statistical information is processed, compiled and published, and at the Primary Education Expansion Project (World Bank project).

In the case of P&D, I met Mr. Syed Atta Abbas whom is a USAID consultant in charge of the computer system of P&D. Mr. Abbas is

a very competent individual with experience in computers and programming in DBASE. He is familiar with software such as DBASE III and Lotus 123 and a few other packages. He is familiar with BASIC language. There are four or five computer operators trained in data entry in DBASE but with limited knowledge of other aspects of computers or software. There are four computers in this Department.

Mr. Abbas himself, has little experience in Education and education data analysis.

In the case of the PEEP, we find Mr. Javed Qureshi, responsible for Evaluation and Data management of the Project. He has a Masters Degree in Statistics from the University of Balochistan, and various diplomas in Research, Data Management, and Computer Science from the National Institute of Psychology in Islamabad, the Ministry of Education in Islamabad, AEPAM, and Asian Institute of Technology in Thailand.

Mr. Qureshi has worked in education for a number of years as a teacher, and now he is in charge of the computers and data management of the Primary Education Expansion Program. He provides training in Data collection and data management, and has trained his computer operators in the use of software.

With two Tandy Computers, Mr. Qureshi mainly uses RBASE for Dos and Lotus 123, and has basic knowledge of other packages such as SPSS, DBASE, and some graphics software.

He has trained a computer operator in the use of these packages and with his experience in education was found to be one of the key individuals that would constitute a valuable asset to the incoming EMIS project.

Aside from Mr. Abbas, Mr. Qureshi, and a very limited number of computer operators in P&D and PEEP, computer training and Data management on computer software must start from scratch.

There is very little training on Data collection and limited knowledge of the basic concepts of data bases and data management. There exists no concept of statistical analysis for planning beyond the basic mathematical operations of counting, summing, and averaging.

Data collection is rudimentary, there is no mapping of the information and very primitive procedures for monitoring schemes and projects. The reliability of the whole system is highly questionable.

The best trained individuals are in the urban areas, mainly Quetta.

The farther away you go from Quetta, the greater the training needs are.

Wherever we went on our visits, we found keen interest in computers and in what computers can do. There was an authentic desire to improve the system but very little knowledge of how to do it.

We found no computers or computer expertise anywhere outside of Quetta, and we were always confronted with the demand for training starting from the basic data collection procedures.

9. PERSONAL OBSERVATIONS AND RECOMMENDATIONS

General Recommendations:

As mentioned in the main body of the present Report, most of the individuals interviewed at the different levels of the Education Structure agreed upon the fact that they have problems in their data collection, flow, process, analysis, reliability, and storage system.

There is little sense in collecting data that will not be used, or that once it is stored it is difficult to gain access to. Information must not only be accurate, but it must also be pertinent, timely and accessible.

The way the system works today (and it does work) in Balochistan suggests a slow and painful process of collection and aggregation of data from the school to the Secretariat of Education. Slow, because it takes weeks or even months for the information to flow up through the system; painful because of the quantity of data and because the process is done manually with a great amount of time and effort put into it.

As the information moves up through the system, it does so with an increasing degree of aggregation. In a manual system it can not be in any other way. Otherwise, if the complete set of data that exists at each school reaches the Statistical Cell of the Directorate of Education - Schools, the office would have to double or triple its staff to deal with the amount of paper that would inundate the physical space of the SC.

The District Education Office, the Statistical Cell of the Directorate of Schools, the Deputy Director of Education-Planning, the Deputy Secretary of Education-Development, all deal with student, teacher, staff, physical facilities, and financial information. They must prepare the Budget in its different forms, as well as the ADPs and SNEs, teacher statements, staff statements, financial statement, etc., etc. All of these are time consuming activities and indispensable for the functioning of the educational system.

There is no lack of information. All the basic information for the necessary planning, policy, and decision making processes exists at the school or the District levels. In fact, there is so much information and data that the system as it exists today, literally does not know what to do with it. The result is that at each level the numbers get aggregated and substantial amounts of data get lost, eliminated, or simply stored away in files, never to be seen again.

As mentioned in the Report, there is little sense of history in the education structure. The system is present-oriented, and at this stage, it makes sense because it is hard to keep up with the current year's data, the forms that must be filled, and the deadlines that must be met.

An EMIS based at the District level and working its way up to the Divisions, Directorates and Secretariat levels can provide enormous and almost immediate benefits to the Education system of Balochistan. The purpose would not be to do completely different things than what is done today, but to take advantage of the existing system and improve its reliability, its speed, and reduce the effort that is invested in the data/information flow process.

With an EMIS in place in Balochistan and with adequate hardware/software and training, it can be possible to handle disaggregated data on teachers, students, physical facilities, personnel, and budget in all the planning/policy concerned offices within the structure.

At present no historical data is analyzed because there is limited possibilities of doing so. There is no efficient way of storing or accessing dead files. No (or very little) statistical analysis is done because the amount of existing data is overwhelming to process manually. The reliability of the data is limited because the possibilities of checking, contrasting, verifying, are also limited. For the same reasons, schemes are difficult to monitor.

Without dramatically changing the present structures and procedures, and taking advantage of the organization of existing offices in the different levels of the Education System, it may be possible to place and operate a District-based Education Management Information System in Balochistan.

This EMIS would then provide on a timely basis, relevant information that the system requires today, plus additional information that it has not been able to obtain in the past (or was able to obtain but at such a high cost that it made the effort impractical). This information could include things such as drop-outs, repetition and promotion rates, by school, or district, or gender; queries on teacher qualification, school location, condition of buildings, and any combination of data or manipulation of indicators within a database to provide projections and facilitate statistical analysis which is basic to educational planning.

By placing computer systems at the Districts, Divisional Headquarters, Directorate of Schools and Secretariat of Education, within the existing offices that today deal with education data and planning, it may be possible to rationalize the education decision-making process of the Province.

As the system exists today, the allocation of resources, opening or upgradation of schools, hiring of teachers, opening posts, etc. is based on a little data, and a lot of politics.

An EMIS will not eliminate the political process and considerations, and it will not eliminate the intervention of the "influential people". But it will provide the necessary data to make "informed" choices and arguments as to where to open a school, or what resources are necessary in a specific region.

It will provide any level of the structure with the possibility of identifying specific schools in any District. Of identifying trends, test scores, results, scholarships, teacher performance. It can facilitate the preparation of ADPs, SNEs, budget. monitoring. It can increase the accuracy of all that is being done today and more. My recommendation is to consider the possibility of doing it with the people that are already in the system and in charge of the data collection, aggregation of data, and preparation of financial and staff statements at the different levels of the structure.

For example, within the DEO's office, there are the Establishment, Accounts, and General Branch. This would be the natural instance to place a computer system, maybe with three databases, one for each Branch. The personnel in charge of these Branches may be the computer operators entering the data in standardized data entry forms; people who are already at the DEO's office.

The data can be stored in diskettes and transported to the existing statistical cell of the Directorate of Schools, to the Deputy Director of Education-Planning, to the Additional Director of Primary Schools, to the Deputy Secretary of Education, to the Chief of Section of Education and Health of the Planning and Development Department, and to any concerned individual, office, or instance. Using adequate software such as Rbase, Lotus 123, and Word Perfect, anyone, with relatively little training, can manipulate the data and presented in different forms according to need or requirements.

My personal opinion is that such a system, with adequate funding and training can be put into place in a relatively short period of time stretching down (or up, depending on how you look at it) from the Secretariat to the Directorate of Schools, to the Divisional Headquarters to the Districts (see recommendations on location). It may be possible in the short run to run a trial at Divisional level with re-designed proformas and working in one or two selected Districts in each Province. Over the first year, the system would be tried, and as of the second year the system could gradually expand from the Divisional level to all the Districts.

Recommendations on Location

Ten Districts were visited for the purpose of this study: Quetta, Pishin, Ziarat, Loralai, Sibi, Dahdar, Dera Murad Jamali, Kalat, Uthal, and Turbat.

Different conditions were found at each District (see interviews), which suggests the need to visit the remaining ten Districts of the Province to determine the specific condition of each of the 20 Districts and decide on those that offer at present, an adequate environment for placing a computer system.

For the adequate operation of a computer system, specific environmental conditions are required for the adequate functioning of the machines: a clean, cool, dry room relatively free of dust and humidity. It goes without saying that a relatively regular supply of electric energy is also required.

Two of the Districts visited, Dahdar and Ziarat, do not offer acceptable conditions in terms of the safe operation of a computer machinery (see interviews #23 & #26). The supply of electricity in Turbat is not regular meaning that besides the standard surge protector, a battery back-up beyond the normal UPS might be required.

In the rest of the Districts visited, the best physical conditions in terms of environment were found at Pishin. In descending order: Sibi, Quetta, Kalat, Dera Murad Jamali, Loralai, and Uthal.

Pishin and Dera Murad Jamali offered the best environments in terms of an academic concept of a database and data management on the part of the DDEO of Pishin (see interview #28), and the DEO of Dera Murad Jamali (see interview #25). In this sense, the Divisional Education Officer Female of Quetta (see interview #22), and the DEO of Kalat (see interview #27) also qualify.

Here again I must insist on the fact that it is necessary to visit all the 20 Districts to make an adequate assessment of the environment in each one.

Above the District and Divisional levels, more complete computer system (in terms of capacity and analytical capabilities of the operators) should be placed at the Statistical Cell of the Directorate of Schools, at Education-Planning, and in the Secretariat, under the Deputy Secretary of Education-Development.

There should be an additional computer set-up, maybe at the level of the Chief of Section of Education and Health of the Department of Planning and Development, or at the level of the Secretary of Education. This unit, within the Education structure, could function as an "independent" sampling unit to monitor the whole EMIS system for reliability. This unit would actually be the only "addition" to the structure. Another possibility would be to place this unit under the new Additional Director of Primary Schools (?).

Recommendations in terms of Training

As mentioned above (see General Recommendations), the EMIS should take advantage of the existing structure within the Education System. This means providing computer training for the members of the SC of the Directorate of Schools, to computer operators under the DDEP, and to the staff of the Establishment, Accounts, and General Branches of the District Education Offices.

At each of these levels, some additional staff would have to be trained as back-up personnel for cases of transfers or "drop-outs".

Depending on the software which is to be used, a basic training program of 4 to 5 weeks should be set-up for the concerned staff. After such training that would include concepts of database management and "hands on" training, computers could be operational.

The existing Proforma would have had to be standardized according to the requirements of each level and the structure of the database that was chosen. Decisions in this respect including software and hardware will have to be made before the training stage.

Once the basic training stage has been completed, a permanent training program will have to be organized along with the whole of the EMIS to offer on the spot training/technical support at the Districts. These on the spot training sessions imparted by "touring" trainers can help solve specific problems which will undoubtedly arise, can provide more advanced training for the design of database applications, and train "back-up" computer operators to replace transfers and drop-outs. I insist that this would be the task for a permanent training unit in coordination with the whole of the EMIS program.

Closing Comment

The idea of a computerized system for Education was received with enthusiasm where ever it was presented. This included high officials of the Education System, Divisional and District Education Officers, and even teachers at some of the schools. The innovation would be widely accepted and welcomed.

One aspect which the present report hardly touched was the female

side of the Education System. Though there are boys in girls schools, and girls in boys schools, it is probably correct to say that these are actually parallel structures within the system. The female side should be further studied and receive special attention. An EMIS should definitely include the female structure and due to the circumstances in Balochistan will probably run parallel to the male side of the system.

There were quite a few limitations to the study as it was conducted. The most obvious refers to the fact that the whole of the study was done in urban centers. As I understand it, the rural areas of Balochistan offer a different reality than what was observed in the urban areas visited.

It may be recommendable, as suggested by a DEO and an MPA (see interview #30 & #33), to accompany for a period of 5 to 6 days a "touring" official in his inspections of schools in "far flung" areas. This may provide grater insights as to how the system actually works.

As mentioned before, it will be necessary to visit all the possible sites for placing computerized systems. This requires the visit and assessment of ten additional Districts other than the ones already visited.

The section that has reviewed the academic and practical qualifications of the people involved in data collection and processing is very limited and should be expanded.

Finally, as was pointed out before, the EMIS and a computer is only as good as the data that it is fed and the kin of analysis that is done with that data. Special attention should be placed on the design of the data entry forms and proforma, and on the training of the people that will collect the information.

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