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**PRIMARY EDUCATION IN GOA: A STATISTICAL PERSPECTIVE**

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**Abstract**

Primary education is the grass root level of education for every individual. It forms the basis on which all the other levels of education rest upon. This study deals with familiarizing the readers with the structural set up of Directorate of Education in Goa, and to know the factual position of primary education with regards the number of schools, type of management, manpower requirements, number of enrolments in types of management in the State of Goa. Government primary schools in Goa have decreased in number due to lack of students' enrolment in these schools. This paper has analyzed the statistical data on primary education and the need for further research with regards to the teachers allocated, infrastructure provided by the government primary schools in Goa in comparison with the private aided primary schools is required to ensure standard quality primary education in Goa.

**1.1. Introduction**

As the prominent philosopher Martin Luther King, Junior puts it, "the function of education is to teach one to think intensively and to think critically. Intelligence plus character - that is the goal of true education." Primary education is the creation of an environment where a child is encouraged to think of new things every single day and can bring the best out of a child. Primary education is that foundation level of education which if given due importance and priority then can transform the child's life which would not happen with higher education as by the time a child belonging to below poverty line attains 15 years of age his/her mind no longer can be molded and shaped the way it could have been while the child was at primary level. This signifies the importance of primary education.

Although governments across the world invest heavily in education, they spend remarkably little to monitor and evaluate their investment. Management of most of the world's education systems is done without adequate information and analysis. It is therefore essential to understand the present status

of primary education in Goa in order to utilize the information further for the efficient and effective allocation and utilization of the investments made in primary education in the state of Goa.

(Ahmad, Rauf, Rashid, Rehman, & Salam, 2013) critically reviewed the existing literature to identify the prime issues in the Primary Education System in Pakistan and found that primary education is neglected the most, financed and managed poorly. This ineffective primary system has led to Pakistan struggling with lowest rates of literacy in the world even post 6 decades of its existence as the students are not directed towards critical thinking, reflection, analysis and creativity but encourages creativity. The students produced with these schools are incompetent, poor skilled and poor knowledgeable. (Rana & Das, 2004). An investigation in the state of the primary schools discovered lack of adequate infrastructure clubbed with lack of teachers affects the quality of teaching in the primary schools. The students belonging to lower castes are however the once who are at the highest disadvantage as the education imparted is not in their mother tongue. To solve this turmoil, a multi-dimensional conscious effort would be required to ensure greater efficiency.

### 1.2. Demographics of the State of Goa:

According to the 2011 census, Goa has a population density of 394 persons per square kilometer. In numbers the population of Goa is 14, 58,545 which amounts for 0.12% of the country's total population i.e., approx. 1.21 billion. The growth rate as warranted by census 2011 has been 8.23%. It is certainly the smallest state of India with an area of 3,702 square kilometers.

Rural	62.17%	Male	50.68%
Urban	37.83%	Female	49.32%
Total	100%	Total	100%
Source: Census 2011 report			

Age Class	Number	Percentage
Up to 4 years	1,01,203	6.94%
5-9 years	1,05,968	7.27%
10-14 years	1,10,989	7.61%
15 years and above	11,40,385	78.18%
Source: Census 2011 report		

According to the 2011 census, Goa is the fourth most literate State in India followed by Kerala, with a literacy rate of 88.70%. However, the literacy rates among the males is reported to be higher (92.64%) as compared to the literacy rate among the females (84.66%). It is interesting to note that the literacy rates in the rural areas (86.64%) is not much far behind when compared to the literacy rates (89.95%)

in the urban areas. This implies that almost the entire population of the state of Goa has access to primary education, irrespective of the areas in which they reside.

### 1.3. Primary Education in Goa:

The Constitution of India provides in its Article 45, free and compulsory education for all children until the age of 14 years will be provided within ten years from the commencement of the constitution. However, the task providing basic education to all, with concrete plans of action, gained greater momentum only after the National Policy of Education (NPE), 1986 (revised in 1992) with the world Declaration on education for all (EPA) adopted in Jomatin in 1990. Basic Education, Childcare Education (ECCE), the elementary education, education to adolescents, adult education, gender quality and quality improvement have been the focus of international attention. These international developments within the country brought the need for recognizing basic education as a fundamental right of every citizen on priority basis. Hence, it is very important to provide standard quality primary education to all children in the age group of 6 to 10 years.

### 1.4. Objectives:

In this study an attempt is made to understand the organizational structure of the Directorate of education prevalent in the state of Goa and also to know the current status report of primary education in Goa. Since liberalization tremendous efforts have been made by the Governments, both at the State as well as Central level to improve the quality of education in the State. With the view to know the factual position with regards the number of schools, manpower requirements, infrastructure, enrolments the following specific objectives are undertaken in this study:

1. To understand the organizational set-up of the Directorate of Education In Goa.
2. To know the factual position of Primary Education in the State of Goa.

### 1.5. Database and Methodology

The current study is based on analyzing the facts and figures of Primary Education System of the state of Goa. Hence it is mainly based on secondary sources of data. Secondary data is obtained from the statistical publications of the Directorate of education, publications from the Directorate of planning, statistics & evaluation, Porvorim-Goa as well as the Census 2011 Report. Data is analyzed using cross tabular analysis.

### 1.6. Presentation of Data

- 1.6.1 Organizational structure of Directorate of school in Goa
- 1.6.2 Types of primary schools in Goa
- 1.6.3 Number of primary schools according to management, urban/rural
- 1.6.4 Enrolment in primary schools' according to management, gender
- 1.6.5 Number of teachers according to management, training.



1.6.1. Organization Structure of Directorate of Education

The Directorate of education is located at Porvorim, Goa. The important sections of the Directorate of education consist of administration, academic, planning, vocational, accounts, statistics, adult education.

The development and the administration of the school education in Goa is looked after by the Directorate of education under the provisions of the Goa, Daman & Diu School Education Act, 1984. The education structure consists of the pre-primary, primary, middle, secondary and higher secondary schools.

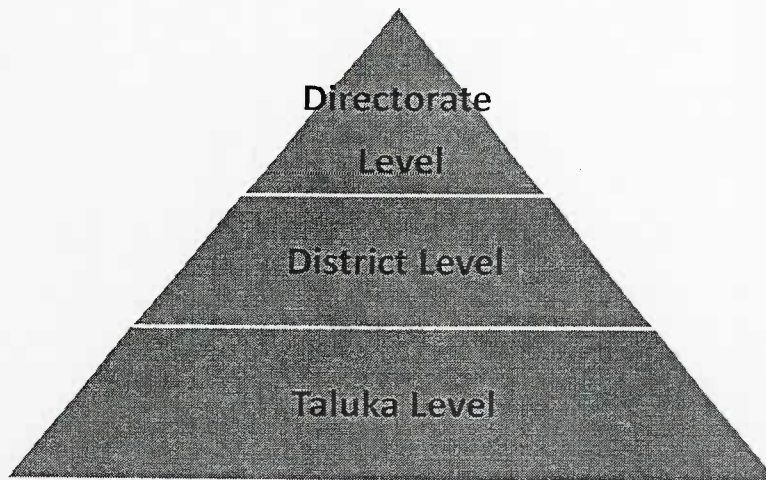


Fig 1.6.1.1. Administrative Structure of Directorate of Education

At the district level the school education system in the state of Goa is divided into three zones for easy administration activities. Central Zone, North Zone and South Zone which consists of three to four talukas each having headquarters of the zonal offices at Panaji, Mapusa and Margao respectively. These zonal offices headed by the Deputy Director of education look after the academic matters concerning the school education.

Table 1.1. District Level Educational Zones		
Central Zone (Panaji)	North Zone (Mapusa)	South Zone (Margao)
Tiswadi	Pernem	Canacona
Ponda	Bardez	Quepem
Sanguem	Bicholim	Salcete
	Sattari	Mormugao
Source:: Educational Statistics at a Glance 2016-2017, Directorate of Education		

Table 1.6.3.1: Number of Primary Schools in Goa by type of management, urban/rural in 2016-2017

Sr. No.	Particulars	Primary schools		Primary Schools 2016-2017			
		Number	Percentage	Urban	Rural	Urban(%)	Rural(%)
1.	Government	781	66.13 %	680	101	87.07	12.93
2.	Aided Private	269	22.78 %	72	197	26.77	73.23
3.	Unaided Private	123	10.41 %	53	70	43.09	56.91
4.	Both	8	0.68 %	3	5	37.5	62.5
	Total	1181	100 %	952	229	80.61	19.39

Source: Educational Statistics at a Glance 2016-2017, Directorate of Education

### 1.6.2. Primary Schools in Goa according to management type

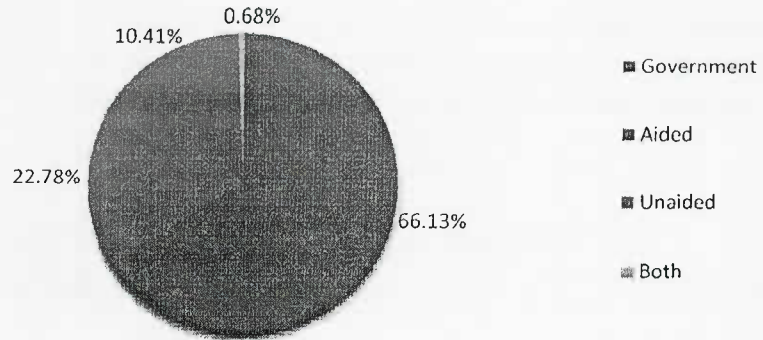
Primary Education in Goa is provided by three types of Institutes:

1. Government Primary Schools (completely owned and controlled by the government)
2. Aided Private Primary Schools (owned by a private management but gets aid from the government)
3. Unaided Private Primary Schools (completely owned and controlled by a private management and gets no aid from the government)

### 1.6.3. Number of primary schools in Goa by management, urban/rural

There exist 1,181 Primary Schools which are reported to be operational in the State of Goa for the academic year 2016-17. Out of which 80% of the schools, i.e., 952 schools are located in the rural areas while 229 schools are located in the urban areas. The 952 Primary Schools located in urban areas, comprise of 680 Government schools, 72 are private aided schools, 197 are private unaided schools Management and 3 primary schools belong to both. Whereas out of 229 Primary schools located in the rural areas, 101 schools are run by the Government while, 53 are run by private aided management, 70 are run by the private unaided management and 5 primary schools are run by both.

**Fig. 1.6.3.1. Primary schools in Goa by type of management**



The educational statistics of Goa state that there are, at present, 1181 primary schools located in the state of Goa. Out of which 66.13% of the schools are government primary schools, which are managed by the government, 22.86% are private aided primary schools which receive grants from the government and are managed by private managements, 10.33% are private unaided primary schools which do not receive any grants from the government and are managed privately. While 0.68% of the primary schools are hybrid schools which have part of classes receiving aid from the government whereas the remaining classes do not receive any grants from the government. The above pie chart clearly indicates the role of the Government as the major provider of primary education in the state of Goa

**1.6.4. Number of enrolled students according to management, gender**

Table 1.6.4.1: Enrolment of students in primary schools according to management, gender in 2016-2017

Sr. No.	Type of management	Boys	% of boys	Girls	% of girls	Total	%
1.	Government	11156	50.58%	10900	49.42%	22056	22.86%
2.	Aided	24995	50.69%	24305	49.30%	49300	51.11%
3.	Unaided	13782	54.89%	11329	45.11%	25111	26.03%
	Total	49933		46534		96467	100%

Source: Educational Statistics at a Glance 2016-2017, Directorate of Education



The educational statistics of Goa state that, there are at present, 96,467 students enrolled in 1181 primary schools all over Goa. Out of which 22.86% of the students are enrolled in government primary schools, 51.11% of the students are enrolled in private aided primary schools and 26.03% of the students are enrolled in private unaided primary schools. The gender ratio is close to one for each of the type of primary schools which indicates that there is no difference in the number of boys and girls with regards to enrolment. This clearly indicates that there exists no gender disparity among the students of primary schools with regards to accessing primary education for their development and that of the state.

#### 1.6.5. Number of teachers according to management, training in 2016-2017

Table 1.6.5.1: Number of teachers in primary schools according to management, training in 2016-2017

Sr. No.	Type of Management	Trained	%	Untrained	%	Total number of teachers
1.	Government	1711	100	0	0	1711
2.	Aided	1333	97.94	28	2.06	1361
3.	Unaided	634	67.09	311	32.91	945
	Total	3678	91.56	339	8.44	4017

Source: Educational Statistics at a Glance 2016-2017, Directorate of Education

There are, at present, 4017 teachers teaching at 1,181 primary schools all over the state of Goa. Out of which 91.56% are trained primary teachers while the rest of 8.44% are untrained teachers teaching at the primary schools. Even though, 8.44% in percentage terms seems negligible, in terms of number it amounts to 339 untrained teachers, which is pretty substantial. However, it is interesting and commendable to state the number of untrained teachers employed in government primary schools is nil. That means that the government schools hire only those teachers who possess the required training to be eligible to teach in primary schools. On the other hand, 0.70% of teachers employed in 270 government aided primary schools which are primary managed, are untrained. However, this number can be considered negligible. The number of untrained teachers employed in primary schools however, is the largest i.e., 339 with regards to the unaided primary schools managed privately.

#### 1.7. Analysis of the data

##### 1.7.1. Students' enrolment across primary schools, rural urban

From the following table 1.7.1. which relates table 1.6.3.1. and 1.6.4.1., it implies that approx. 23% of the students are enrolled in 66% of the primary schools, which are managed by the government. It is however very intriguing to notice that 51% of the students are enrolled in private aided primary schools which make up only 23% of the total number of primary schools. This means that there is

higher demand for private aided primary schools in Goa as compared to Government primary schools and private unaided primary school. 26% of the students are enrolled in private unaided schools which comprise 10% of the total number of primary schools in Goa.

Table 1.7.1. Relationship between number of primary schools and students' enrolment

Sr. No.	Particulars	Number	% of primary schools	Enrolments	% of enrolments
1.	Government	781	66.13 %	22056	22.86%
2.	Aided Private	269	22.78 %	49300	51.11%
3.	Unaided Private	123	10.41 %	25111	26.03%

Source:

Fig. 1.7.1: Composition of students across types of management and rural/urban

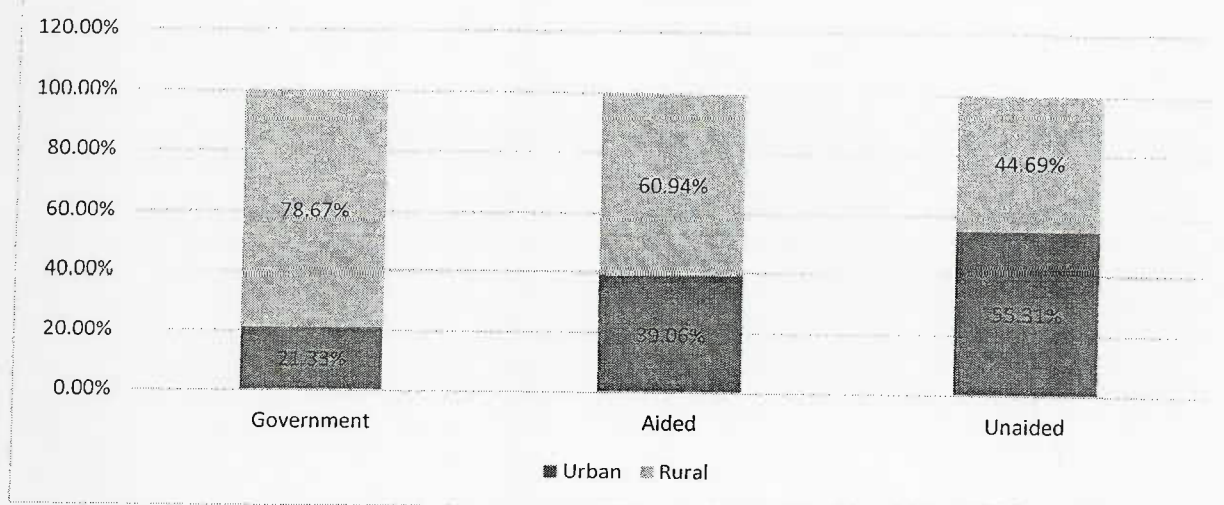


Fig 1.7.1. further shows the composition of students' enrolment across types of management and area. Out of the number of students enrolled in government primary schools, only 21.33% of the students go to primary schools located in the urban areas while 78.67% of the students are enrolled in government schools located in the rural areas.

In respect of the total enrolment in aided primary school, i.e., 39.06% of the students are enrolled in aided primary schools located in urban areas whereas 60.94% of the students go to aided primary schools located in rural areas. This indicates that the demand for primary schools located in rural areas is higher as compared to primary schools located in urban areas with regards to government and government aided primary schools in Goa.



However, with regards to the total enrolment of students in unaided primary schools 55.13% of the students are enrolled in private unaided schools located in urban areas while 44.69% of the students are enrolled in primary unaided schools located in the rural areas. Hence the demand for unaided primary schools is higher for those schools located in urban areas in comparison to rural areas in respect of unaided primary schools.

### 1.7.2. Teacher Pupil Ratio by management

The Teacher Pupil Ratio measures the number of students per teacher. It reflects teacher workload and the availability of teachers' services to their students. The lower the Teacher-Pupil Ratio, the higher the availability of teacher services to students. The Teacher-Pupil ratio has implications not only for the cost of education, but also for the quality. The Right to Education (RTE) Act recommends an ideal Teacher-Pupil Ratio to be 30:1 for classes from I to IV i.e. primary classes and 35:1 for classes from V to VII i.e. upper primary classes.

1.7.2.1: Teacher Pupil Ratio in Goa		
Sr. No.	Type of management	TPR
S1.	Government	1:13
2.	Aided	1:36
3.	Unaided	1:27

A calculation of the Teacher Pupil Ratio at Government primary schools indicates a ratio of 1:13, which if read excluding all other factors is a very good ratio. But, in reality the TPR cannot be considered as the apt measure for allocating teachers to the Government Primary Schools in Goa. In respect of aided primary schools, the ratio calculated is 1:36 which is exceeding the standard TPR for primary classes. However, in spite of having a higher TPR the demand for aided primary schools is higher which is visible from the number of enrolments. The calculated TPR in unaided primary schools is 1:27 which indicates a good ratio, which is in line with the standard TPR.

A comparison of all the TPRs at various types of schools indicates that the Government schools are not very efficient allocation of their manpower resources.

### 1.7.3. Comparison of teacher requirement and allocation across type of management

A further calculation of the number of teachers required at primary schools according to management brought to light the following:

Table 1.7.3.1: Calculation of teachers required at primary schools according to management

Sr. No.	Particulars	Total number of schools	*Teacher Requirement	Actual teachers allocated	Shortage / Excess
1.	Government	781	3124	1711	(1413)
2.	Aided Private	270	1080	1361	281
3.	Unaided Private	122	488	945	457

\*Teacher Requirement is calculated on the condition that each school would require at least one teacher to teach at each standard. Thus a minimum of four teachers would be required for every primary school, and the number would increase with the increase in the number of divisions.

The above table indicates a shortage of 1413 teachers in government primary schools, whereas an excess of 281 and 457 teachers is observed in private aided and private unaided primary schools respectively. However, in reality they could be no excess in the aided and unaided schools as the number of divisions for each class may be more than one.

#### 1.7.4. Calculation of shortage of teachers in Government primary schools

The Teacher Pupil Ratio in Goa as stated in the records is 1:24, which implies that there is one teacher allocated to every 24 students. The ratio is derived by dividing the total number of students enrolled at the Primary Stage by the total number of teachers at the Primary Stage. i.e., 96467/3950. However, this ratio does not present the true picture of the teacher allocation at the Government Primary Schools.

An article on the newspapers with regards to the shortage of teachers in government primary schools highlighted the shortage of 1,413 teachers all across the state of Goa. However, a further investigation into the same exposed the following facts about the Teacher Pupil Ratio. The results of the same are presented in the table 1.7.4.1

Table 1.7.4.1. Calculation of teacher requirement in Government primary schools at each Taluka

Talukas	Total Number of Schools	Number of classes with zero enrolment	Actual Teachers Allocated	*Number of Teachers required	Shortage of Teachers
Pernem	72	11	177	277	100
Bardez	70	11	184	269	85
Bicholim	80	13	187	307	120
Sattari	106	19	180	405	225
Tiswadi	38	1	110	151	41
Ponda	113	12	221	440	219
Sanguem	56	9	92	215	123
Dharbandora	52	9	80	199	119
Quepem	61	3	115	241	126
Canacona	66	8	115	256	141
Salcete	45	4	146	176	30
Mormugao	22	3	104	85	-19**
Total	781		1711	3021	1310

The number of teachers required is calculated by multiplying the total number of schools at each taluka with four (I, II, III, IV) minus the number of classes with zero enrolment.

-19\* implies that there is an excess of 16 teachers

In the above table the number of teachers required to be allocated at each taluka are calculated on the premise that a minimum of four teachers are required to engage the four grades with a single division, i.e., one teacher each for Std. I, Std. II, Std. III and Std. IV, in any school at any point of time. Thus, the result necessitates a requirement of 3,021 teachers in 781 government primary schools. However, there are only 1,711 teachers allocated to the government primary schools which mean that there is a shortage of 1,310 teachers in the government primary schools in Goa.

It is to note that the shortage of teachers will further increase with the increase in the number of divisions at each Standard.

### 1.8. FINDINGS AND CONCLUSIONS:

From the above analysis of the facts and figures of the Primary Education in Goa of the academic year 2016-2017, following were the highlights. Aided primary schools that make up around 1/4th of the total number of primary schools have an approx. of 50% of the student enrolment. Whereas government primary schools that make around 66% of the total number of primary schools comprise less than 1/4th of the student enrolment. This indicates the higher demand for aided primary schools over government primary schools.

It is noteworthy to highlight that there is 100% employment of trained teachers in government primary schools, however the percentage of trained teacher employment in case of aided schools is

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around 97% in aided and 67% in case of unaided primary schools. In spite of 100% trained teacher employment the demand to avail primary education from aided primary schools is higher.

Further investigation in the TPR across types of school management revealed that the government primary schools had the most inefficient TPR of 1:13. The study also highlighted the shortage of teachers at government primary schools which was calculated on the premise that each standard would require one teacher to teach the students at each class, which is a serious problem that is faced by the government primary schools in Goa. this could be attributed to be one of the reasons for lower demand for primary education from the government owned and managed primary schools in Goa. The State of Goa might have tried to achieve accessibility of primary education but however lacks quality, which deprives the students of critical, analytical and creative thinking which is a right every individual.

A further detailed study on the current status of primary education, especially with regards to the teachers allocated, infrastructure provided by the government primary schools in Goa in comparison with the private aided primary schools is required to ensure standard quality primary education in Goa. This will also help to ensure the efficient and effective utilization of funds of the government.

#### References:

1. Ahmad, i., rauf, m., rashid, a., rehman, s. U., & salam, m. (2013, march). Analysis of the problems of primary education system in pakistan: critical review of literature. Academic research international, 4(2), 324-331. Retrieved from [www.journals.savap.org.pk](http://www.journals.savap.org.pk)
2. Rana, k., & das, s. (2004, march 13-19). Primary education in jharkhand. Economic and political weekly, 39(11), pp. 1171-1178. Retrieved from <http://www.jstor.org/stable/4414769>
3. [http://www.education.goa.gov.in/List%20of%20Recognised%20Institutions%20in%20Goa%20\(2016-17\).pdf](http://www.education.goa.gov.in/List%20of%20Recognised%20Institutions%20in%20Goa%20(2016-17).pdf)
4. [http://www.education.goa.gov.in/EduStats\\_Glance2010-11.pdf](http://www.education.goa.gov.in/EduStats_Glance2010-11.pdf)
5. [http://www.education.goa.gov.in/citizens\\_charter.html](http://www.education.goa.gov.in/citizens_charter.html)