## PLAN FOR EDUCATION IN ORISSA

## Summary of recommendations on Planning of Schools for all Categories in Orissa State

So far there has been no well-regulated plan for determination of number and types of schools, number of qualified teachers and location of the institutions at proper places in different districts. The result is general lack of qualified teachers, accommodation and equipment and all-round deterioration in the standard of education, mushroom growth of schools and sudden increase in the number of scholars. To prevent such a state of affairs; an attempt has been made to prepare a plan and to spread the expansion of education over a period during which implementation will be possible within the financial resources of the State. Estimates are based on the Census figures of 1951 as well as established principles gained through experience and laid down by eminent educationists. In order that the estimates are precise and workable, an educational survey on the spot may follow, as some variations may occur in the plan based on Census figures and on actual survey. It is therefore recommended that a sample survey of selected areas, both urban and rural, may be undertaken.

The estimates have been prepared on the following among other considerations :-
(1) The Government must undertake the responsibility of providing at least Primary (Junior Basic) Education for all school-going children of age group 6-II.

- The number of such children is estimated to be $18,01,446$. The

Statement I total number of Primary or Junior Basic schools for them will be 25,873 of which 13.884 will be 3 grade schools ${ }^{\prime}$ and $11,989,5$ grade schools as against 9,614 L. P., 1,056 U. P. and 555 Sevasrams, i.e., as against 11,225 Primary Schools. They have been distributed districtwise (a statement is enclosed). But in the main report and the plan details for each police-station have been worked out.

The total number of teachers will be 59,963 ( 47,974 non-matric
Statement II and 11,989 matric trained teachers) as against 18,917 (8,312 trained and 10,605 untrained) teachers. The total number has been calculated districtwise (a statement is enclosed).

The ultimate cost on Primary Education when the scheme of universal, free and compulsory Primary Education comes into operation will be Rs. 4,58,60,180 but minus present expenditure the figure will stand at Rs. $3,93,76,887$. This estimate is exclusive of recurring expenditure on inspection and supervision, training of teachers, scholarships and non-recurring expenditure on furniture and other grants.

Subsidy for construction of building has been included at varying scales ranging from Rs. 80 to Rs. 750 according to the type of the schools. The current expenditure will be Rs. 2,58,68,267, i.e., Rs. 3,21,50,540 minus Rs. 62,82,273 (present expenditure).

Tbis is based on the pupil-teacher ratio $30: 1$ and the proposed uniform scales of pay for non-matric and matric trained teachers-scales being Rs. 35-50 for non-matric and Rs. 50-90 with fa starting pay of Rs. 60 for matric-trained teachers. For a five grade Primary school, there will be one trained matriculate teacher and others will be trained non-matriculate teachers. For a three grade Primary school all teachers will be non-matriculate trained teachers.
(2) It should aim at introducing universal, free and compulsory Primary (Basic) Education for the children of 6-1l age group within a period of twenty years but if finances improve at a later stage, the scheme may be spread over a lesser period but in no circumstances it should be given up. This period may be divided into four units of five years each. The first five-year may bo devoted to bringing the educationally backward districts at par with other districts as far as possible and the next three five-year units for gradual improvement of education throughout the entire State. As the entire planning has been drawn up on the basis of population, it would be necessary to review the position after implementation of the first five-year programme with a view to see how far the programme of work should have to be modified in relation to local demand, increase of population during the past five-yeur period and such other factors as would be relevant to the issue.
(3) The duration of the period of the system of school classes should be as under-
(i) Primary or Junior Basic Schools, Standards I to V-5 years,
(ii) Middle or Senior Basic Schools, Standards VI to VIII3 years; and
(iii) High or Post-Basic Schools, Standards IX to XI-3 years - (4) In urban areas wherd the conditions permit, the same school buildings may be utilised for two shifts.
(5) The basio minimum salary of a trained teacher as shown in the uniform scales of pay should not be reduced.
(6) Single teacher schools should be avoided as far as possible.

Primary Education has not thrived well under the local bodies nor could such a vast responsibility be successfully shouldered by any agency other than the State. With the Anchal Sasans coming into being, it may be necessary to empower them to maintain and manage the schools and to shoulder the financial responsibility. Inspection, supervision and syllabi should be left in the hands of the Educational $a^{\text {uthorities. }}$

## SECONDARY EDUCATION

The number of Middle (Senior Basic) and High (Post-Basic) schools required for children of age groups $11-14$ and $14-17$ will be 2,684 and 454 respectively as against 598 and 207 including 31 Asram schools. Statement drawn up districtwise is enclosed. 20 per cent of the children of age group 6-1l will come in the first five-year period to Middle schools and 20 per cent of the children in the Middle scbools will likely come to High Schools in rural areas. The positton is, however, different in schools situated in urban areas where 40 per cent of children of age group 6-11 is likely to come to Middle Schools and 90 per cent of the children in the Middle Schools to High Schools. Estimates are based on the figures mentioned above. The ultimate cost on Secondary Education after universal, free and compulsory Primary Education comes into full operation is Rs. $4,06,61,102$ but minus present expenditure the cost will stand at Rs. $3,43,78,829$. In this estimate twenty posts of beadmasters in the scale of Rs. 200-700 have been provided. The rest is in the uniform scale of pay of Rs. $175-350$ for headmasters of High Schools. This estimate is exolnsive of recurring expenditure on inspection and supervision, training of teachers, scholarsbips and non-recurring expenditure for building, furniture and cther grants.

The cost will be different if all the schools are converted into aided schools. At the present rate, i.e., two-thirds of the total cost of aided schools, the ultimate cost will come up to R.s. $2,71,07,402$ but minus present expenditure it will stand at Rs. 2,08,25,129.

The ultimate cost of expenditure on Secondary Education, if the Government schools or schools managed by Government are allowed to continue and the rest are aided will amount to Rs. 2,16,23,643 after deduction of the present expenditure.

Estimate of cost on Secondary Schools has been prepared with a view to avoiding duplication of classes in High schools but as a matter of fact duplication of classes will be inevitable in urban areas. Calculating on that basis, i. e., allowing duplication of all classes in schools existing in urban areas, it is found that in case of 39 towns and a few subdivisional headquarters included amnng rural areas 58 schools will have their classes duplicated thus reducing the total number of Higb Schools in the State to 396 and at least 4 Middle Sohools will have to be amalgamated with 4 High Schools. This step will reduce expenditure both on current and ultimate side by 619 and $8 \frac{1}{4}$ lakbs of rupees respectively.

The estimates are based on-
(1) Uniform scales of pay for teachers in all types of schools managed by Government, local bodies, etc., which was unknown before.
(2) Scales of pay have been upgraded
(3) Standard staff has been strengthened by inclusion of more trained Graduates, craft teachers and teachers possessing Sahityacharya qualification.

## INSPECTORATE

The existing number of inspecting officers-Sub-Inspectors of Schools and Assistant Sub-Inspectors of Schools for inspection of Primary schools-is 185, i.e, 111 Sub-Inspectors of Schools and 74 Assistant Sub-Inspectors of Schools. The inspecting staff at the present moment appears to be unsatisfactory, due mainly to inadequacy of qualified personnel and consequent lack of effective supervision and regular inspection. The Assistant Sub Inspectors of Schools who are recruited from among the teachers of Primary schools have not proved as successful as was expected. With the introduction of universal, free and compulsory Primary (Basic) Education, attendance will have to be rigorously enforced. In the present financial position of the State, it may not be possible to appoint separate Attendance Officers. If at at later stage it is found that inspection suffers because of work of enforcement of attendance by the Inspecting staff, the question of having one set of inspecting officers for inspection and supervision and another set of officers for enforcing attendance may be considered. The number of Primary schouls to be assigned to each officer may be less or more according to the nature of the area (plains or agency) and the present number should in any case be reduced according as the circumstances or finances permit. The Sub-Inspectors of Schools and Assistant Sub-Inspectors of Schools should be designated as Sub-Inspectors of Schools-cum-Attendance Officers and the Assistant Sub-Inspectors of Schools as Assistant Sub-Inspectors of Schools-cumAttendance Officers. Even this recommendation is marde with reluctance as I am convinced that no other course will be practicable in the present circumstances. With the increase of Primary (Basic) schools, the number of inspecting officers will be progressively increased. I understand Government have decided to open 1,200 one-teacher Primary schools and appoint 24 Sub-Inspectors of Sohools this year, that is to say, for 50 schools there will be one Sub-Inspector of Schools. The co-operation of local educationists and educational workers may be sought for supplementing the work of inspection.

The number of inspecting officers for the proposed number of Primary schools numbering 25,873 in the whole State will now stand at 750, i.e., 250 trained graduates and 500 trained matriculates for the posts of Sub-Inspectors and Assistant Sub-Inspectors of Schools respectively.

The ultimate cost on this head will be Rs. 17,84,450 (recurring) and Rs. 75,000 (non-recurring).

## TRAINING OF IEACHERS

Any scheme of Education, however flawless and ideally perfect, will hardly flourish unless it is worked out by a well-educated, trained and contented body of teachers. At present teachers are generally speaking insufficiently educated, untrained and very inadequately paid. Such teachers are not expected to make any scheme of Primary or

Secondary Education successful. Teachers should have a good general education and be trained. They should also be suitably remunerated. It is proposed to introduce uniform scales of pay within the financial resources of the State which may attract persons of the right type and correct attitude. There has been a general policy towards the conversion of existing Primary schools into Basic schools. Such conversion is bound to be a long-term process. The implementation of the programme will depend on availability of suitable trained teachers. Our State has tried to expand facilities for training and the number of trained teachers has in fact increased. The expansion is, however, not equal to the number in the new schools and the enrolment of pupils. Wherever new training schools are going to be started, they should be of the basic type. Even the old type of training schools should be given basic bias with a view to permit introduction of crafts into the Primary schools. The first three or four years of basic schools are preparatory and not so productive and the last four years are more valuable and may pay their way. Necessary facilities, such as land, water and fencing should be provided. One of the main difficulties in transforming ordinary Primary schools into basic schools has been the difficulty of making the ordinary Primary school teacher take to basic methods. This should be overcome by giving them a short course of intensive training in basic bias, ideology of basic education and craft in the atmosphere of basic training institutions.

An estimate of cost and the number of trained teachers and institutions is indicated below :-

Statement showing the requirement of and expenditure on Training Institutions and the number of trained teachers of all categories

| Number of High Schools required | .. | 454 |
| :--- | :--- | ---: |
| Number of Middle Schools required | $\ldots$ | 2,684 |
| Number of Primary Schools required | .. | 25,873 |

Number of teachers of different categories necessary for implementation of the programme.
(1) Trained Graduates:-

| Number required |  | 4,926 |
| :---: | :---: | :---: |
| Number existing | . | 578 |
| Difference |  | 4,348 |
| Replacement at $10 \%$ of the existing number |  | 58 |

Totai number required $\quad$. $\quad \underline{\underline{4,406}}$

If the scheme is spread over 20 years, two years are required for initial arrangements. So a period of 18 years is left for proxaction of trained teachers.

Annual output is to be $4,406 \div-18=245$
This can be had from the two Training Colleges by raising the number of seats to 120 each. One college is now in existence and another is going to be opened shortly at Angul.
(2) Trained I. As. and Trained Matriculates:-

Number of trained I. As. required .. 3,175
Number of trained Matriculates required 16,182


18,427
Annual requirement .. .. 18,427 $\div 18=1,024$
The 6 existing Basic Training Schools and 2 Secondary Training Schools.
Annually produce $6 \times 40+2 \times 50$.. 340
Deducting 10 per cent of failure i. e., 34
The present annual output .. 306
Total requirement .. $1,024-306=718$
This can be got from the 7 .Basic Training Schools to be established at 7 district herdquarters produoing
$7 \times 40=280$
8. Secondary Training Schools to be newly established producing
$8 \times 50=400$
Total annual production .. . 680

## 7

The deficit in production can be met by increasing the number of admissions.
(3) Non-matric trained teachers for Primary or Junior Basic Schools:-


The ultimate cost of expenditure on the number of training schools to be opened is Rs. 28,18,341.

The financial implications involved in the scheme will go to show that the cost of education like that of other essential services will ultimately fall on current revenues and that this is not possible unless the taxable capacity of the State is increased many times. It may be possible to reduce the liabilities substantially or avoid the liabilities if all Primary and Middle Schools be converted into Basic Schools and new Basio Schools are started where there is none at the moment.

STATENENT I
District-wise statement shouing the ultimate requirement of Primary (Basic) Schools when universal free and compulsory Primary (Basic) Education comes into opera.ion together with the existing number of schools


## STATEMENT II

Statement showing the number of schools and teachers required for children of age 6-11 when universal and free compulsory Primary (Basic) Education comes into operation

| $\begin{aligned} & \text { sl. } \\ & \text { No. } \end{aligned}$ | Name of the district |  |  | No. of children of age group-6-11 | Number of Primary (Basic) Schools |  |  |  |  |  | Number of trained teachers |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 3 Grade | 5 Grade |  |  | Matricu- <br> late | $\begin{gathered} \text { Non- } \\ \text { Matricu- } \\ \text { late } \end{gathered}$ | Total |
|  |  |  |  | $\begin{gathered} \text { One } \\ \text { teaoher } \end{gathered}$ | Two teachers | Total | Three teachers |  |  |  | Five teachers | Total |
| 1 | Balasore | - | . |  | 136,075 | 634 | 408 | 1,042 | 731 | 176 | 907 | 907 | 3,616 | 4,523 |
| 2 | Bolangir | - | . 0 |  | 112,901 | 546 | 339 | 885 | 608 | 145 | 753 | 753 | 3,020 | 3,773 |
| 3 | Cuttaok | . | .. | 311,068 | 1,505 | 933 | 2,438 | 1,668 | 406 | 2,074 | 2,074 | 8,331 | 10,405 |
| 4 | Dhenkanal |  | .. | 103,150 | 480 | 313 | 793 | . 553 | 134 | 687 | 687 | 2,748 | 3,435 |
| 5 | Ganjam | -. | .. | 109,408 | 928 | 605 | 1,533 | 1,071 | 259 | 1,330 | $\cdot 1,330$ | 5,316 | 6,646 |
| 6 | Kalahandi | - | .. | 105,691 | 492 | 318 | 810 | 567 | 138 | 705 | 705 | 2,812 | 3,517 |
| 7 | Keonjhar | $\ldots$ | $\ldots$ | 72,307 | 337 | 220 | 557 | 388 | 94 | 482 | 482 | 1,929 | 2,411 |
| $\dot{8}$ | Koranut | $\cdots$ | . | 155,996 | 726 | 474 | 1,200 | 837 | 203 | 1,040 | 1,040 | 4,160 | 5,200 |
| 9 | Mayurbhanj | . | .. | 126,544 | 589 | 384 | 973 | 679 | 165 | 844 | 844 | 3,375 | 4,219 |
| 10 | Phulbani | . | . | 56,129 | 261 | 170 | 431 | 301 | 73 | 374 | 374 | 1,495 | 1,869 |
| 11 | Puri | $\bullet$ | . | 193,367 | 900 | 587 | 1,487 | 1,037 | 252 | 1,289 | 1,289 | 5,156 | 6,445 |
| 12 | Sambalpur | $\because$ | $\ldots$ | 157,626 | 734 | 479 | 1,213 | ${ }^{1} 846$ | 205 | 1,051 | 1,051 | 4,204 | 5,255 |
| 13 | Sundargarh | , | . | 67,923 | 316 | 206 | 522. | 364 | 89 | 453 | 453 | 1,812 | 2,265 |
|  |  | Total | .. | $1,788,185$ or $1,801,446$ | 8,448 | 5,436 | 13,884 | 9,650 | 2,339 | 11,989 | 11,989 | 47,974 | 59,963 |

Basis of Calculation of-
(i) Number of schools,
(ii) Number of scholars, and
(iii) Number of teachers.

In order to determine the actual number of schools and scholars for the age-groups 6-11, 11-14 and 14-17 and the number of teachers of requisite qualifications competent to teach the children, the following procedure has been adopted. The Census figures of 1951 police-station-wise have been assumed to be the basis. Each district is a unit of calculation and has been divided into police-stations. All police-stations under a subdivision have been grouped together and similarly all subdivisions under a district. Figures in respect of each district have been tabulated and shown under a table in order that one can conveniently find out at a glance different figures under different age ranges. First of all children of 3 different age groups who are available in the total population for education in the Primary, Middle and High stages have been obtained, the required percentage having been indicated on each page of the tables, no matter whether all children of the age groups would be brought under schooling or not. It is presumed that universal, free and compulsory Primary (Basic) education should be provided for all children of school-going age of 6-11. There are 48,398 inhabited villages and 39 towns including a city and it is not physically, economically and financially possible to equip each village with a Primary or Basic school.

It has already been said that in order to assess the actual educational needs of the people and the different areas of the State, an Educational Survey is necessary. In absence of such a survey for calculation of exact figures village-wise, a sample survey from the Census figures of 1951 has been made, taking one police-station from each of the districts shown on the margin

| Distriot | Police-station |
| :---: | :---: |
| 1. Sambalpur | Ssson |
| 2. Mayurbhanj | Rairangpur |
| 3. Sundargarh | Sarobalpur (Sadr) |
| 4. Balagore | Sadr |
| 5. Dhenkanal | Kaniha |
| 6. Kalahandi | Junagarh |
| 7. Bolangir.Patd | Sonepur |
| 8. Keonjhar | Kuanr |
| 9. Phulbani | Phiringia | and an attempt has been made to calculate the exact figures in respect of different types of schools of 3 and 5 grades to be opened village-wise. The total number of schools of each category, viz., 1 teacher, 2 teacher or 3 teacher schools each of 3 grades and 5 teacher schools of 5 grades being thus found out, relative proportion of these schools have been computed with a view to determining the proportion of 3 grade to 5 grade schools and the actual number of teachers required in each case.

Following figures for a group of 55,000 children of school-going age give the calculated result in a tabular form :-

| $\begin{gathered} \text { Total } \\ \text { number of } \\ \text { sohool- } \\ \text { going } \\ \text { ohildren } \end{gathered}$ | Total No. of schools necessary |  |  |  |  | Total No. of teachers |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 Grade |  | 5 Grade |  | Total | Trained Matriculates | Trainednon.Matricu-lates lates | Total |
|  | One teacker | Two | ${ }_{\text {Throe }}^{\text {Teacher }}$ | $\underset{\text { Five }}{\text { Feacher }}$ |  |  |  |  |
| 55,000 | 256 | 167 | 295 | 72 | 790 | 367 | 1,468 | 1,835 |

Hence for a group of 55,000 school-going children the proportion of 3 grade to 5 grade schools is roughly $423: 367$ and that of the number of teachers is $590: 1,245$.

Of the 1,245 teachers in the 5 grade schools 367 are to be trained matriculates and 878 non-matric trained teachers. The proportion of trained non-matriculates to trained matriculate teachers in this group is $1,468: 367$.

Number of 3 or 5 Grade schools necessary for the different districts of the State calculated have been computed police-station-wise in the light of the said figures as exemplified below :

For a pelice-station having 5,000 school-going children of agegroup 6-11 :-

No. of 3 grade schools necessary $=\frac{423}{11}=38.45=38$
No. of 5 grade schools necessary $=\frac{367}{11}=33 \cdot 36=33$
No. of trained matriculate teachers $=33$
No. of trained non-matriculate or $=\frac{1468}{11}=133.1$ under-matriculate teachers.
In all calculations figures below 5 have been neglected and the next higher number has been taken where the fractional portion has exceeded 5 .

## MIDDLE SOHOOXI (SENIOR BASIC) SCHOOLS

The number of Middle Schools (Senior Basic) have been calculated police-station-wise on the basis of 120 students per sohool and the surplus figures of each police-station have been adjusted - in the bordering ones in calculating the number of such schools. But where the surplus figure is 5 per cent or less, it has been ignored for the purpose of calculation.

## HIGH SGIOES (POST-BASIC) SCHOOLS

The number of High Schools has also been calculated police-sta-tion-wise on the basis of 240 students per school. Where only 120 students are available for High School education, establishment of one three class High Schcol would have been possible. But on financial and educational grounds it is safer to amalgamate the three class High School with one of the nearest Middle Schools to make it a High School of six classes. Duplication of classes in High Schools has been avoided as far as possible on grounds of fair geographical distribution and convenience of pupils. In some areas the number of High Schools which have already keen established is in excess of the requirement of that area. Pupils have keen admitted to such schools from neighbouring areas where schools do not exist at the moment. But when schools will be distributed on a planned basis, it may be necessary to rearrange the High Schools according to the plan. In urban areas, however, as the number of schools caloulated to be established appears to be more conspicuous, it would curtail number of such schools and reduce expenditure to a considerable extent if classes are allowed to be duplicated in deserving cases. This fact has been taken into account in determining the number of High schools in urban areas.

An attempt is being made to prepare 13 District Maps showing the location of the existing number of Primary, Basic, Middle and High Schools by means of numerical figures and symbols with other particulars. To each map is attached a list of names of Primary, Basic, Sevashrams, Ashram Schools, Middle Schools and High Schools which are now in existence.

Since art and craft will figure prominently in the reoriented courses of studies for Middle and High Schools, provision for appointment of art-cum-craft teachers, whole-time craft teachers, craft materials and equipments and facilities for land, water and fencing has been mude. Since Middle Schools (Senior Basic) and High Schools (PostBasic) are going to be integrated with Agricultural farms, forest institutes, public health centres, pisciculture centres and industrial schools and institutes now in existence in the whole of Orissa State, reoriented syllabuses to suit the requirements of High Schools having diversified courses of studies are under preparation.

The total expenditure on education at the Primary and Secondary stages has been caloulated for the whole twenty-year period programme. But in order to give an idea as regards the annual expenditure involved an estimate has separately been-prepared and is enclosed. The recurring portion of the annual expenditure as shown in the statement will increase progressively, as the institutions opened year by year will have to be continued.

## BUILDING AND NON-RECURRING GRANTS

As the total number of Primary, Midnle and High Schools is $25,873,2,684$ and 454 respectively in the whole State, it is not
financially possible for Government to pay a substantial grant for construction of buildings to each and every individual school. So far as Primary schools are concerned, it should be the responsibility of the villagers and people living in towns to construct buildings and undertake annual repairs. The State can at best grant a subsidy varying from Rs. 80 to 750 in the case of one teacher, two teacher and three teacher three grade schools and three teacher and five teacher five grade schools respectively. The subsidy at sliding scale has therefore been included in the standard cost of each school.

But so far as Middle and High Schools are concerned, Government generally give grant at the rate of half of the cost if the management applies with a plan and estimate to be approved by the department and is willing to pay the other half. This principle lands the State Government in financial difficulties and should be replaced. It should be the policy of Government to give a grant to a Secondary School not exceeding half of the cost. The type and design of the school building and the total cost must be fixed by Government in consultation with Works Department. The cheaper the building, the better for the poor State of Orissa. No amount has been included under building and any other non-recurring grant in the present estimate. If and when the policy of Government is decided, the estimate will be prepared and added on to the total cost on non-recurring side or annual non-recurring cost.

## Estimate of expenditure to be incurred on Primary Schools to be opened annually

Number of Primary Sohools of different categories to be opened. annually-

| 1. 5 grade schools of 5 teachers each | - | 119 |
| :--- | :---: | :---: |
| 2. 5 grade schools of 3 teachers each | .. | 489 |
|  |  |  |
|  |  | 608 |
| 3. 3 grade schools of 2 teachers each | .. | 81 |
| 4. 3 grade schools of single teacher | .. | 126 |
|  |  | - |
|  |  |  |
|  |  |  |

Total number of schools to be opened annually


Estimate of expenditure to be incurred on Middle Schools to be opened annually

| Total number of Middle Schools required | .. 2,684 |
| :---: | :---: |
| Existing No. of Middle Schools including Ashram Schools at present. | 598 |
| Difference | 2,086 |
| Number of sohools to be opened annually | $\frac{2,086}{18}=$ |

Cost to be incurred-

|  | Current |  | Ulitimate |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reourring | Non. recurring | Reourring | Non. reourring |
|  | Rs. | Rs. | Rs. | Rs. |
|  | 7,15,024 | Nil | 9,47,836 | Nil |
| Provident Fund | 16,530 | $\cdots$ | 23,457 |  |
| $\begin{aligned} & \text { Dearness allowance } \\ & \text { and additional } \\ & \text { dearness allowance } \end{aligned}$ | 2,29,680 | . $\cdot$ - | 2,29,680 |  |
| Total . . | 9,61,234 |  | 12,00,973 |  |

In case of grant-in-aid given by Government the cost will be reduced to $2 / 3$ of the total cost and hence the annual current and ultimate expenditure will amount to Rs. $6,40,822$ and Rs. $8,00,648$ respectively.

This amount will increase progressively from year to year being doubled in the second year, trebled in the third year and so on. This expenditure is in excess of the present expenditure.

Estimate of expenditure to be incurred on High Schools to be
opened annually.
Total number of High Sohools required to be opened .. 454
Existing number of High Schools at present . .. 207
Difference ... $\overline{247}$

Number of High Schools to be opened annually .. $\frac{247}{18}=14$
Cost to be incurred-

|  | Curr |  | Ultim |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Recurring <br> Rs. 2,34,248 | $\begin{aligned} & \text { Non- } \\ & \text { reourring } \end{aligned}$ | $\begin{aligned} & \text { Reourring } \\ & \text { Rs. } \\ & 3,21,846 \end{aligned}$ | $\begin{gathered} \text { Non- } \\ \text { recurring } \end{gathered}$ |
| Provident Fund | 5,959 | . | 8,623 |  |
| Dearness allowance and additional dearness | 60,984 | - | 60,984 | - |
|  | 3,01,191 | . | 3,91,453 | .. |

In case all these schools are given grant-in-aid only, Government will incur only $2 / 3$ rd of the cost and hence the annual current and ultimate expenditure will amount to Rs. 2,00,794 and Rs. 2,60,976 respectively. This annual expenditure will increase progressively from year to year being doubled in the second year, trebled in the third year and so on till the target is reached after 20 years.

This expenditure is in excess of the present expenditure.
Estimate of expenditure to be incurred on inspection of Primary Schools to be opened annually
Number of Primary Schools of different grades to be opened-815.
Number of S. Is. and A. S. Is. to be appointed of which 8 will be S. Is. and 15 A. S. Is. $\quad$. $\frac{815}{35}=23$

Cost to be incurred-
\(\overbrace{Reourring}^{\substack{Non- <br>

recurring}} \overbrace{Rs.}^{Recurring}\)| Non- <br> recurring |
| :---: |
| Rs. | Rs. $\quad$ Rs.

8 Sub-Inspectorf of Schools.
Pay of $8 \mathrm{trained} \quad 11,520$.. $\quad 16,776$ Graduates (120-250).
Special pay at 20 per cent
15 Assistant SubInspectors of Schools.
Pay of 15 trained Matriculates ( $60-90$ ).
Special pay at 20 per cent
10,800
13,785

Fixed travelling allowance
2,160 . . . 2,757 at Rs. 25 per month per officer.

| Contingencies at Rs. 60 <br> per officer. | 1,380 | .. | 1,380 | .. |
| :---: | :---: | :---: | :---: | :---: |
| House-rent at Rs. 10 per <br> month per officer. | 2,760 | .. | 2,760 | .. |
| Furniture at Rs. 100 per <br> officer. | .. | 2,300 | .. | 2,300 |
| Dearness allowance and <br> additionaldearness | 7,092 | .. | 7,092 | .. |



The recurring expenditure will be doubled in the second year, trebled in the third year and will go on increasing like this every year until the full number of officers are appointed in course of 18 years. This is exclusive of the present expenditure incurred on inspeotion.

## An estimate of annual expenditure on Training Institutions for production of teachers

Of the eight Secondary and seven Basic Training Schools, it is proposed to open two Secondary and one Basic Training School in the first year and one Secondary and two Basic Training Sohools in the second year alternately. At this rate it will be possible to complete opening of the full number of Secondary and Basic Training Schools in course of five years. The thirty-five Elementary Basic Training Schools should have to be opened in course of five years at 7 per annum. It is essential that the training institutions should be opened as early as possible in order to reach the target number of trained teachers required per annum in course of the first five-year limit.

Annual outturn of trained teachers in this case will be as follows:-

|  | 1 lst year | 2nd year | 3 rd year | 4th year | 5th yoar |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Secoondary | $2 \times 50=100$ | $3 \times 50=150$ | $5 \times 50=250$ | $6 \times 50=300$ | $8 \times 50=400$ |
| Basic | $1 \times 40=40$ | $3 \times 40=120$ | $4 \times 40=160$ | $6 \times 40=240$ | $7 \times 40=280$ |
|  | 140 | 270 | 410 | 540 | 680 |

Elementary.. $7 \times 40=280 \quad 14 \times 40=560 \quad 21 \times 40=840 \quad 28 \times 40=1,120 \quad 35 \times 40=1,400$
The annual target of production of teachers will thus be reached in the 5th year after which the annual requirement is likely to be met fully. Hence during the first 5 years demand of trained teachers will be met only partially and untrained teachers will have to be appointed and they will be given opportunities to get themselves trained in due course.

COST ON TRAINING SCHOOLS
1st Year


Dearness allowance and

| $1,59,532$ | $2,30,900$ | $3,06,756$ | $2,30,900$ |
| :---: | :---: | ---: | :---: |
| 18,588 | $\ldots$ | 18,588 | $\ldots$ |

additional dearness allowance.

Total.. | $1,78,120$ | $2,30,900$ | $3,25,344$ |
| :---: | :---: | :---: |
| $4,09,020$ | $2,30,900$ |  |
| $5,56,244$ |  |  |

| 2nd YearCurrent |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Reourring Non-recurring |  | ecurring Non-reourring |  |
|  | Rs. | Rs. | Rs. | Rs. |
| 1. One Secondary Training School. | 22,732 | 30,000 | 45,405 | 30,000 |
| 2. Two Basic Training Schools. | 39,472 | 52,000 | 74,122 | 52,000 |
| 3. Seven Elementary Training Sohools. | 94,332 | 1,40,900 | 1,78,885 | 1,44,900 |
|  | 1,56,536 | 2,26,900 | 2,98,412 | 2,26,900 |
| Dearness allowance and additional dearness allowance. | 18,012 | - | 18,012 | . . |
|  | 1,74,548 | 2,26,900 | 3,16,424 | 2,26,900 |
|  |  | 1,448 |  | ,324 |

The estimates shown above indicate the expenditure to be incurred on opening of new training institutions only. The reourring portion of the expenditure on account of institutions already opened will have to be continued during the 2nd, 3rd, 4th and 5th year and will thus increase progressively every year until the 5th year when it will come to a level. This is shown in a separate statement attached. STATEMENT SHOWING PROGRESSIVE EXPENDITURE ON TRAINING
INSTITUTIONS TO BE INCURRED IN THE COURSE OF FIVE YEARS

## Expenditure during 2nd year

|  | Current |  | Ultimate |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Roourring | $\begin{gathered} \text { Non- } \\ \text { recurring } \end{gathered}$ | Reourring | $\begin{gathered} \text { Non- } \\ \text { recurring } \end{gathered}$ |
|  | Rs. | Rs. | Rs. | Rs. |
| New schools to be opened in 2 nd year. | 1,74,548 | 2,26,900 | 3,16,424 | 2,26,900 |
| Continuing sohools opened in list year. | $1,78,120$ |  |  |  |
| Add on account of stipends for 2 nd year students. | 1,21,240 |  | 3,25,344 | -. |
|  | 4,73,908 | 2,26,900 | 6,41,768 | 2,26,900 |

Expenditure during $3 r d$ year
New schools to be opened $1,78,120 \quad 2,30,900 \quad 3,25,344 \quad 2,30,900$ during 3rd year.
Continuing schools opened $2,99,360$.. 3,25,344 .. in lst year.
Continuing schools opened $1,74,548$ in 2 nd year.

Add on account of stipends $\quad 1,19,680$ for 2 nd year students.

| $7,71,708$ | $2,30,900$ | $9,67,112$ | $2,30,900$ |
| :--- | :--- | :--- | :--- |

Expenditure.during 4th year
New schools to be opened $1,74,548 \quad 2,26,900 \quad 3,16,424 \quad 2,26,900$ during 4th year.
Continuing schools opened 2,99,360 .. 3,25,344 during lst year.
Continuing schools opened 2,94,288 .. 3,16,424 .. during 2nd year.
$\left.\begin{array}{llllll}\begin{array}{c}\text { Continuing schools opened } \\ \text { during 3rd year. }\end{array} & 1,78,120 \\ \begin{array}{c}\text { Add on account of stipends } \\ \text { for 2nd year students. }\end{array} & 1,21,240\end{array}\right\} \ldots \quad 3,25,344 \quad \ldots$

Expenditure during 5th year


Rs.
Rs.
Rs.
Rs.
New schools to be opened
1,78,120
$2,30,900$
3,25,344 - 2,30,900 during 5th year.
Continuing schools 2,99,360 .. $3,25,344$ opened during lst year.
Continuing schools opened 2,94,288
3,16,424 during 2nd year.

Current


Rs.
Continuing schools opened $2,99,360$ during 3rd year.
Continuing schools 1,74,548 opened during 4th year.
Add on account of sti- $1,19,680$ pends to 2 nd year students.

Ultimate


Rs.
3,25,344

3,16,424

$$
\begin{array}{lll}
13,65,356 & 2,30,900 & 16,08,880
\end{array} 2,30,900
$$

This will be the ultimate expenditure on training institutions to be incurred annually after the 5th year and is exclusive of the present expenditure incurred on training institutions as the institutions proposed to be opened here are in addition to those existing in the State.

STATEMENT SHOWING DISTRIBUTION OF MIDDLE AND HIGH SCHOOLS IN THE ORISSA STATE


M. C. PRADHAN<br>Special Officer

