

National Policy on Education, 1986

PROGRAMME OF ACTION,  
1992  
(Draft)

GOVERNMENT OF MEGHALAYA



सत्यमेव जयते

DEPARTMENT OF EDUCATION,  
GOVERNMENT OF MEGHALAYA, SHILLONG

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## CHAPTER : I

### EARLY CHILDHOOD EDUCATION

1. Hitherto the structure of Primary stage of education in the state is five years of Primary education consisting of classes A, B, I, II & III. The age group is 4 + and above. Hence there is a great deal of under-age enrolment at the primary level. The situation is now rectified by re-structuring the system and clearly define the age group. Under the re-structuring system and clearly define the age group. Under the re-structure system, the Elementary Education consists of :-
  - (i) Primary - Class I, II, III & IV with one attached Pre-Primary section.
  - (ii) Upper-Primary-Class V, VI, VII.
  
2. The Pre-Primary section attached to every Primary School will cater to the children in the age group 4 to 5 Years. The necessity to attach a pre-primary section in every primary school is because children of the age group 4-5 years are already in such schools. More over this arrangement is most suited to our villiage situation, where children attending schools will bring along their little brothers and sisters. The pre-primary section therefore serves as a support system to ensure the enrolment and retention at the primary level.
  
3. The fifth Survey indicated the total enrolment at the primary stage to be 2.52 lakhs of which 1.15 lakhs are in class A alone. It is a fact that most of this 1.15 lakhs children population are under-age group which may be called Pre-primary group in the new structure. The state govt. have therefore taken a decision to provide a separate teacher for the pre-primary section and the salary of the teacher is fixed at Rs. 1000/- pm.



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4. Out of 3692 primary schools ( V Survey ), separate pre-primary teachers were being provided only 1000 schools. The rest is proposed be covered in a phase manner during the eight plan period. However the target may not be achieved unless enhanced allocation is given to this sector.
  
5. The Pre-primary education as implemented in the state focus only on education. No prescribed syllabus or text books are given; but teachers are encouraged to use play-way method. However there is much to be done to the content and process this level of education : to develop a relationship between home and community, to take care of the nutrition aspect of children and to provide a separate room with toys and other materials in order to foster joy, creativity and confidence, Training of teachers for this specific area of specialisation is another scheme which have to be taken up by the State.

CHAPTER : II

PRIMARY EDUCATION

1. With the re-structuring of the school system and the implementation of the revised curriculum, the primary education was given the much desired attention in terms of its quantitative and qualitative aspects in keeping with the national Policy. However the problem of primary education in the state is still on mobilising enrolment as large number of children are outside the school system. Out of 5337 habitations only 4007 of them have the facility of a primary school within one Km distance. The following table taken from Fifth Survey report gives a true picture of primary education in the State.

Habitations with and without Primary school

Population size of ha-bitations	Total no. of habi-tations.	No. of habitations having primary school within		No. of habi-tations not covered by schools with -in 1Km dis-tance.
		within	within 1 Km	
below 100	1274	290	545	729
100 - 199	1495	884	1102	393
200 - 299	1002	777	860	142
300 - 399	578	510	548	30
400 - 499	307	262	289	18
500 - 599	519	478	503	16
1000 -1999	132	120	130	2
2000 -4999	28	27	28	-
above 5000	2	2	2	-
Total	5337	3350	4007	1330

2. The attempt is to provide a school in every village and habitation and in smaller habitations to set up a Non-Formal education centre. This can be realised only if the norms of village/habitation population size and students-teacher ratio are relaxed.
3. The revised curriculum and syllabus recently introduced is aimed at achieving a minimum level of learning. But the transaction of the curriculum will depend on the teachers and other infrastructural facilities like buildings, teaching-learning

materials etc. The position of teachers leaves every doubt if the quality of education picture will speak for itself.

Primary schools according to teachers

	V Survey	March 1993
One-teacher	1969	1800
Two-teacher	1025	1307
Three-teacher	367	370
Four-teacher	142	144
Five teachers and more	188	188

4. Teachers : The initial effort of the state is to provide a teacher in every single teacher school so that no primary school is left with only one teacher. This can be done in a phase manner during the VIIIth plan period. It is expected that some schools may be covered under the Operation Black-board scheme and the rest will be under state plan provision. With the introduction of the revised curriculum, it is found that even two or three teachers cannot do justice. Hence in our Primary schools with class I to IV we shall need atleast four teachers.

5. Buildings : and class rooms : Out of a total number of 4170 schools 3175 are deficient in building. However with the peristent effort of the state to provide building to schools ever the years through the 8th, 9th Finance Commission Awards, the JRY etc., 1787 schools building were completed, 683 are under construction. We still have some 700 schools which needed buildings. But the main problem in our school building is to accommodation of students because all our buildings are two-room buildings. Hence the strategy now is to provide additional rooms to all the schools where two-room building were constructed and that also depending on enrolment and number of teachers in the schools.

6. New schools in school-less villages : Though the aim is to enrol all children in primary schools and as part of this strategy existing primary schools are given additional teachers and addition classrooms, yet there will still be a large number of children outside the school system. This is because of non availability of schooling facilities. As mentioned at para 2, smaller habitations will be provided with a NFE centre. According to the V Survey. Out of 1330 unserved habitations as many as 720 have population below 100. Again out of 601 habitations having population more than 100, only 206 have population more than 200. Hence the strategy in setting up of new schools will be concentrated first in the 206 habitations and slowly enlarged to the 601 habitations.
7. Other programmes : These include incentive schemes like provision of text books, teaching-learning materials, libraries, scholarship, uniform etc.

CHAPTER - III

UPPER PRIMARY EDUCATION

1. The Vth Survey indicated that there were only 665 Up Schools to 3692 Primary schools. The ratio is therefore 1 Up school 5 P Schools. The picture as on March 1993 is 826 Up schools to 4170 P Schools. The ration of UP:P did not improve. It is still 1:5. This state of affairs reveals that a number of children within the age group 6-14 are outside the school system. Amongst the many reasons, the chief one being non availability of schooling facilities. If the national ration of 1 UP School for every 2 P Schools is implemented, the state will have to step up the setting up of UP schools. In fact the Vth Survey revealed that only 2706 habitations out of 5337 of them have facilities of UP Schools within 3 Km distance. Considering the topography of the land where natural barriers abound, even the 3 km norm for setting up UP school is not practical in the State. Because of the low density of population (60 persons per square km) there are many habitations without UP schools since the norms of population is 500. There are only 631 habitations with population more than 500 and these have got a UP School but most of the schools are in the urban centres and big villages. The number of habitations without UP Schools are as follows :

<u>Population size</u>	<u>No. of habitations</u>
Below 100	1274
100 - 199	1495
200 - 299	1002
300 - 399	578
400 - 499	307

2. Opening of new Upper Primary schools : In order to cover at least 85 % of the children in the age group (11-14), we shall have to set up UP schools in all habitations having more than 300 population. This will involve setting up of 885 new UP schools. These together with the existing 826 UP schools will, by the end of the VIIIth Plan period total upto 1711



UP schools bringing a ratio of 1:2. However the plan allocation will not permit setting up of so many UP schools unless it is revised. The cost will be reduced if the existing primary schools are upgraded into UP schools and the central scheme of Operation Blackboard for UP implemented in right earnest.

3. Improvement of the quality of education : The revised curriculum with the national core curriculum, recently introduced in the state is aimed at improving the general standard of education. A sad feature experienced in this educational process is the lack of qualified teachers. Though the state have arranged for training and orientation of teachers in the new syllabus, the results are not always encouraging because of the following reasons :
- (a) Categorisation of schools - There are four categories of schools - govt. schools, private aided (deficit) schools, private aided (ad hoc) schools and private unaided schools, While it is easier to get qualified teachers for Govt. and deficit schools it not always possible for ad hoc schools. In govt. and deficit schools the full salary is borne by govt. but in the case of ad hoc schools, govt. financial assistance is in the form of ad hoc grant which is not at all commensurate with the demand. Hence most of these schools fail to get qualified teachers because of the very low pay. Also majority of the UP schools are ad hoc schools. Out of 826, schools seventy eight percent or 643 are ad hoc schools. Out of 826 schools. So if the quality of education is to deficit schools in a phase manner or alternatively, enhance the financial assistance. The strategy is to adopt both the methods. The existing level of assistance of Rs. 800/- per teacher will be enhanced proportionately and some schools be taken over for deficit grant in aid according to availability of funds.

- (b) Inadequate number of teachers - the syllabus content the UP level is not only enhanced but it is science and mathematics oriented. Moreover in the new structure a higher class is added to the UP stage. There is a felt need to provide one more teacher to all the UP schools in order to do justice to the revised curriculum. Hence additional post of teachers are being created in govt. and deficit schools in a phase manner.

4. Infra-Structural facilities :

- (a) School building - According to the V Survey out of 665 UP Schools only 150 or 23 % have pucca school building. Hence the position of building is far from satisfactory. More schools would have to be taken during the plan period for providing them with durable building.
- (B) Staff quarters - This is another essential scheme in the rural areas where facilities have to be created for attracting teachers into rural schools.
- (c) Hostels - Since the number of UP schools are less than the number required, to enable the existing one cover more children, hostel facilities are created. The scheme is under 50:50 sharing between centre and state govt. Though some hostels have been constructed under this scheme, the demand is for more such hostels.
- (d) Other facilities include establishment of libraries book banks and provision of teaching - learning facilities.

5. Financial implications :

- (a)(i) To set up 885 new UP schools
- (ii) To improve the salary of Teachers in 643 adhoc schools.
- (iii) Building for 1000 UP Schools.
- (b) Hence the cost is :
- (i) Salary to 5000 teachers @ 3000/- p.m. Rs. 1800.00 lakhs(per year)
- (ii) Building 1000 schools of plinth area  $150m^2$  Rs. 4500.00 lakhs
- (iii) Other programmes Rs. 500.00 lakhs

## CHAPTER - IV

### NON FORMAL EDUCATION

The Non-Formal Education in the State is taken as a complementary system to the formal Education in the goal for universalisation of elementary education. The NFE programme caters to the school dropouts and out of school children. NFE centres are set up in villages where schooling facilities are absent and in villages where school dropouts are available. There is no separate syllabi or curriculum for the NFE system. They follow the same curriculum and text books used in the formal system. Students of the NFE system are allowed to sit at the public examinations conducted by the Meghalaya Board of School Education together with students from the formal stream. This would enable them to re-enter formal stream again if they so wish. Teachers or instructors are drawn from amongst the school teachers or educated youths if available. NFE centres are usually located in the formal school buildings and teaching-learning conducted in the evening or morning according to the convenience of the students and availability of accommodation. NFE centres may be for Primary or Upper Primary covering age group 6 to 9 and 10 to 12 respectively.

The programme is under the control and supervision of the District Adult/Social Education Officers and the SEO/LSEO who act as supervisors and are the field functionaries for implementation of the programme in addition to their duties in the Adult Education Programme.

Instructors of NFE centres are given a short training programme of five days duration. Since most of them are school teachers, they are not available for longer duration of training. However, there is an advantage as most of them have already got a training in formal system like school management, methodology of teaching etc. The training under NFE would consist of topics like the difference between NFE and formal system of education, why NFE?, techniques of teaching drop-outs and slow learners, enrolment mobilisation, management of classes, monitoring evaluation and examination procedure.

No study has been made on how effective the training are for NFE instructors and their work. However, training is necessary if for any thing else other than to orient them on the different approaches of formal and NFE system of education. With the new subjects and new text books now being introduced in the State, the NFE / Instructors would require more training in the transaction of these new courses both for formal and non-formal and the difference between the two.

The cost per centres in 1991-92 was Rs. 4300/- (Recurring) where the Instructor is paid an honorarium of Rs. 200/- p.m. and the rest is for provision of Teaching/Learning materials to the learner etc. Non-Recurring expenditure for provision of equipment like Blackboard and Teaching/Learning for the centre are given only once in the three years. In 1992-93 750 centres were run in the State and the enrolment was as follows :-

Boys - 8371  
Girls - 7149  
 Total: 15,520

The proposed no. of centres to be set up till the end of the 8th Plan Period is as follows :-

1993-94		94-95		95-96		96-97	
Pri- mary	Upper Pry.	Pri- mary	Upper Pry.	Pri- mary	Upper Pry.	Pri- mary	Upper Pry.
800	-	800	100	800	150	800	200

No centres could be set up in the Upper Primary level during the last two years because with the introduction of the new curriculum by the Board of Secondary Education it became extremely difficult to get qualified teachers able to cope with the new situation. It is expected that in the following year we will be able to start Non-Formal Education for the Upper Primary level also.

The programme which is a boon for children who do not have the chance to attend the regular formal schools is running well except for certain problems.

a) Enrolment - The target enrolment could not be achieved. The main reason is low density of population in the villages since NFE centres are set up in those villages which have no schooling facilities and selectively in villages which have formal schools but having a sizeable number of out of school or dropped out children.

b) Teachers - Since this is a special type of programme where the teacher has to give more attention to the learners, it was decided that the qualifications for the teachers should be matric for Primary level and P.U. passed for Middle level. This is very difficult to implement so in those villages where NFE centres are most needed, teachers are not available. In some cases under-qualified teachers have to be appointed and the quality of education suffers. This was one reason why during 1992-93 we could run centres only for the Primary Level.

c) With drawal from the formal schools - It has been noticed that some parents took NFE centres to be alternative schools. They, therefore, withdraw their children from the formal schools and coarce them to join the NFE centres, thereby employ-ing their children gainfully in other economic activities. For Parents who can afford to send their children to formal schools, this should be discouraged.

All these problems have caused the expansion of the programme to be made with such caution.

## CHAPTER - V

### SECONDARY EDUCATION

1. According to the V Survey (1986-87) there were 288 secondary schools, The number as on March 1993 has increased to 374. However out of these, 21 are govt. schools and 121 are govt. aided under deficit system of grant-in-aid. Sixty two percent of the schools are under adhoc grant-in-aid. With the introduction of the revised curriculum and enhancement in the course and content of the syllabus, this stage of education would need adequate improvement in terms of teachers and infra-structure.
2. The strategy in secondary education are extending access to secondary education by setting up new schools in unserved areas and increasing the existing capacity by consolidating the existing facilities. Other areas will be on quality, modernisation and provision of standard infrastructure such as class rooms, libraries, science laboratories and equipments. The training and orientation of teachers will one area which will have to given much attention to.
3. The revised syllabus is science-bias to keep up with the need of the modern age and building up of the scientific temper. However the implementation is handicapped because science teachers are not available in the rural areas due to low pay scale. Hence to get qualified teachers we shall have to offer attractive pay scales. This is not so much a problem in Govt. and deficit schools but it is a major problem in adhoc schools. Where the grant-in-aid is only Rs. 1000/- to Rs. 1200/- p.m. per teacher. The approach in this respect is either take more schools under deficit system of grant-in-aid which is an expensive exercise or increase the rate of adhoc grant substantially. The latter approach will be adopted as plan allocation in the secondary sector is limited and funds for other programmes are also scarce. The central funded scheme for improvement of science education which include science teachers and provision of laboratories and other materials will be taken advantage of by increasing the coverage.

Financial implications : There are around 1575 secondary teachers in 232 adhoc schools, If we are to improve their pay scale to Rs. 3500/- p.m. it will cost Rs. 630.00 lakhs a year to take only 1500 of them. Other schemes like provision for building etc. will cost another Rs. 600.00 lakhs. This is a minimum expenditure of providing 100 schools with building of 200 sq. metre plinth area.

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IMPLEMENTATION OF HIGHER SECONDARY COURSE AT + 2  
STAGE IN MEGHALAYA

1. The introduction of + 2 stage as part of the School System was approved by the State in conformity with the national pattern of 10+2+3 system. The management and control of the Higher Secondary Course will vest with the Meghalaya Board of School Education (MBOSE). However at present the + 2 stage is being conducted as Pre-University Course in the Degree colleges and Junior colleges under the management and control of the North Eastern Hill University (NEHU).
2. Thirty four (34) High Schools have been selected and identified for introduction of Higher-Secondary or + 2 stage. These schools are scattered all over the state covering all the seven districts of the state. As part of the first stage of implementation of Higher Secondary course, all the ~~34~~ schools have been provided assistance in building and infrastructure like classrooms, laboratories and libraries. As soon the first stage is completed, the second and the third stage will be provision of equipments and teachers so that instruction can commence. It is expected that some schools which have completed their building programme can begin the course in 1994-95 session. However out of the 34 schools only one school namely Pine Mount School have started +2 stage in 1992-93.
3. Keeping in view the local condition and optimum utilisation of resource, the withdrawal of the Pre-University course from the degree colleges will be done in a phase manner till such time the schools are equipped and in a position to take all the students.

MARKS :

The eight plan allocation for secondary/Education sector is Rs. 1400.00 lakhs. This is meant for secondary and higher secondary schools, Govt. and Non Govt. institutions, The expenditure during the two years of the plan period is Rs. 651.00 lakhs. The demands and commitments for only the secondary schools(deficit) and adhoc) are many and it is estimated that funds may not be sufficient for them for the next three years even at the present level of expenditure.

The expenditure on higher secondary course is expensive. Each school would have three streams- Arts, Science and Commerce and if we take a minimum of 8 teachers per stream, we shall require  $3 \times 8 \times 34$  or 816 teachers of post graduate degree level. Taking — Rs. 3500/- per teacher we shall require Rs. 28.56 lakhs per month or Rs. 342.72 lakhs per year. The schools would also require other non-recurring items. Hence either the allocation would have to be revised or a pragmatic approach would have to be revised or a pragmatic approach would have to be taken in selecting schools and courses of study within the plan allocation.

VOCATIONALISATION OF EDUCATION, IN MECHALAYA

1. State govt. have taken decision to implement the vocational education as part of the higher secondary education at + 2 stage of education. The MBOSE have been directed to frame the syllabus for vocational education and the same is in the final stage of completion. It is expected that implementation of vocationalisation would be made concurrently with the introduction of + 2' stage in the selected high schools.
2. Out of the 34 schools selected for + 2 stage ten(10) schools have been selected for introduction of vocational education. These schools have been given financial assistance for building up necessary infrastructure like work shop, work sheds laboratories, libraries etc., under state plan funds and central funding.
3. However the state is taking a cautious approach to the introduction of vocational education if this should be terminal at plus two stage or upper mobility be allowed for students taking vocational subjects. The experience of other states would be our guideline especially in terms of placement and employment opportunity of students passed out of the vocational streams/courses.

REMARKS :

1. There is no separate allocation for vocationalisation. We meet this expenditure out of Secondary Education allocation. The funds are hardly sufficient for implementation of plus two stage let alone the vocational education.
2. The central assistance on vocational education is limited to only construction of work-shed, equipment and survey. It is proposed that assistance should also include salary of teachers so that this important programme do not suffer in implementation because of lack of funds.
3. It is equally importance that the Directorate and the SCERT be strengthened in order to enable them to give undivided attention and professional guidance to this programme.

ADULT EDUCATION IN MEGHALAYA

1. The literacy rate of Meghalaya in 1994 is only 48.26 which is only a marginal increase from 42.22 in 1981. It is however below the National average of 52.11. The main reasons for this poor attainment of literacy are the unusually large drop-out of Children from schools and non-availability of schooling facilities in a large number of habitations whose population is below 100 whereby setting-up of schools is not viable. To tackle the literacy situation a three prong attack is recommended -(i) formal schools should be strengthened so that children are retained in schools at least up to class IV (ii) Non-formal education is made to cover those areas where schooling facilities are absent and to those out-of-school children and drop-outs and through (iii) adult education programme to cover specially the age group 15 - 35.

The estimated illiterate population in the age group 15-35 during the 8th plan period is 2.62 lakhs. The break-up between urban and rural will be approximately 0.62 lakhs and 2.00 lakhs respectively.

The absence of voluntary agencies to take up adult education programme in the state especially in the rural areas has made it difficult to adopt the total literacy Campaign. The State Govt. have been encouraging voluntary agencies which are mostly urban based to take up this programme. One such programme sanctioned by the State for Rs. 10.20 lakhs is to the Shillong Literacy Drive through the Department of Adult and Continuing Education, NEHU. We are still to assess the success of the programme which is concentrated only in Shillong city itself.

Since all the colleges are located in the urban areas and cities it becomes impossible to mobilise college students to take up TLC programme in the rural areas. Moreover no voluntary agency has so far come up for taking this programme in the rural area. Hence the question of screening or recommending any VA for TLC in the state is premature. Efforts are being made to coerce local clubs and

youth organisations to take up literacy programme in a limited scale covering villages or blocks. The State Govt. approach to Adult Education is also area specific within a given time frame. The area be a block or a group of villages but literacy classes are conducted by an instructor selected from the village itself.

In view of the situation as existed in the state and other Hill areas in North East India, the approach to adult education programme in eradication of illiteracy will continue to be through the centre-based approach untill such time as voluntary agencies come in a big way to take up TLC in the whole district/state.

The approach to adult education and eradication of illiteracy in the age group 15-35 will be through the Mass Campaign and through the Centre-based. The state is sparsely populated with only 60 persons per square Km, villages are concentrated in Urban areas. Hence the mass campaign by college and high schools students will be limited mostly to urban areas. In deep rural areas and distant villages, adult education programme will have to be done through centre-based approach. It is recommended therefore that colleges and high schools will be encouraged to raised team of literacy volunteers to deal with the 0.62 lakhs illiteracy adults in the urban areas during the plan period. For the rural areas a total number of 8000 adult education centres will be required in order to cover the 2.00 lakhs illiterates.

The basic approach of time-bound and areas-specific will be the guidestone for both mass campaign and centre-based programmes. However an area may be a village, a group of village or a community development block. Elaborate survey will be made in the selected areas before commencement of the programme. Another approach which will link the schools or college to the problem of illiteracy is to encourage them to adopt a village and eradicate illiteracy within sometime frame from that village. This will be called the village-adoption approach.

The post literacy and continuing education through the setting up of Jana Shikshan Nilayam or village learning centre will be continued during the plan period so that relapse into illiteracy is prevented. However the national norm of one JSN for 5000 population covering 5-7 villages is not practical in our state. Low density of population and great distance between villages, criss-crossed by rivers and ravines is the existing picture of our cilla-gees. It is proposed that the norms be fixed on the basis of number of villages concerned and not strictly on the basis of population. Hence considering on the average of 7 villages per JSN, we will require 750 JSN per year.

Phasing of physical target :

(a) Adult Education Centres

<u>1992-93</u>	<u>93 - 94</u>	<u>94-95</u>	<u>95-96</u>	<u>96-97</u>	<u>Total</u>
1000	1500	1700	1800	2000	8000

(b) Beneficiaries(enrolment no. made literate).  
(in lakhs)

<u>1992-93</u>	<u>93 - 94</u>	<u>94-95</u>	<u>95-96</u>	<u>96-97</u>	<u>Total</u>
0.25	0.37	0.42	0.45	0.50	2.00

(c) Jana Shikshan Nilayam :

<u>1992-93</u>	<u>93- 94</u>	<u>94-95</u>	<u>95-96</u>	<u>96-97</u>	<u>Total</u>
150	150	150	150	150	750

Financial implications : The AEC will run for six months during the time most convenient to the learners so that maximum benefit is gained from the centres. The cost is calculated at Rs. 3000/- per centres. For JSN the cost is Rs. 7000/- each for recurring and non-recurring separately. The phasing of expenditure is as follows :

	(Rs. in lakhs)					
	<u>1992-93</u>	<u>93-94</u>	<u>94-95</u>	<u>95-96</u>	<u>96-97</u>	<u>Total</u>
AEC	30.00	45.00	51.00	54.00	60.00	240.00
JSN	21.00	31.00	42.00	52.00	63.00	210.00
Other pro-gramme including Direction & Administration	10.00	10.00	10.00	10.00	10.00	50.00
<b>Total</b>	<b>61.00</b>	<b>86.50</b>	<b>103.00</b>	<b>116.50</b>	<b>133.00</b>	<b>500.00</b>

SCIENCE EDUCATION

ELEMENTARY LEVEL : Prior to the implementation of the new education policy, Science is not a compulsory subjects at the elementary level. Yet half of the Upper Primary Schools and one fourth of the lower Primary Schools had introduced NCERT Science Books in Regional language after in-service training are imparted and Science Kits provided to them.

Now under the new education policy, science in the form of environmental studies is a compulsory subject for all schools. Training is being imparted in batches/phase to make the teachers more competent. Old type Primary Science Kits have been provided to more than half of the total Lower Primary Schools in the State, but since now design Primary Science Kits have been developed we have to provide this new type Primary Science Kits to all the Lower Primary Schools. Integrated Science Kits is being provided to 200 Upper Primary Schools out of Govt. of India Assistance under the CSS, and to few more Schools out of State own fund.

SECONDARY LEVEL : Science is a compulsory subject at Secondary level. At present NCERT Science Text Books & Mathematics is being introduced up to Class IX, some up to Class X. Science equipments to the tune of Rs. 65,000/- being provided to 40 High Schools under the CSS Assistance. More assistance will be availed of from Govt. of India for more schools. Science room and Science Teacher is being provided out of State own fund.

To solve the dearth of Science Teacher in the State, Govt. have extended special assistance to all adhoc Aided High Schools (about 180 number) to entertain qualified Science graduate Teachers

Science Exhibition is being organised annually at the District Level and State Level. Suitable participants are regularly deputed to Eastern India Science Fair and National Science Exhibition.

SUPERVISION : It is felt there is lack of supervision of Science Education in the Schools due to weak infrastructure at the Directorate as well as at the District Level, as there is only one full time Science Officer at the Directorate (of the rank of Lecturer) and only one District Science Supervisor for each District (of the rank of S.I Schools).



PROGRAMME OF ACTION ON HIGHER EDUCATION IN MEGHALAYA

There are two Govt. Colleges and twenty four Private Colleges in Meghalaya. The Govt. Colleges are financed, controlled and managed by the State Government, while, the Private Colleges are supported by the Govt. through Grant-in-aid. All the Colleges are affiliated to the North Eastern Hill University.

1. The revised University Grant Commission Pay Scales are implemented from 1st January, 1987 for the College teachers in the State, alongwith all the allowances, like Dearness allowance, Medical allowance, House Rent allowance, Hills allowance, and Winter allowance.
2. The new Three Year Degree Course, with Major has been introduced and implemented by the NEHU from the current academic session of 1993-94.
3. Restructuring of courses under the new Three Year Degree Course has been taken up by NEHU which are implemented from 1993 in all the Colleges.
4. The eligibility Test, for recruitment of College teachers as provided by the revised U.G.C. Pay Scales is being processed by the Govt. under the framework of the U.G.C. Test.
5. Training of College teachers in Refreshers and Orientation Courses are conducted by the Department of continuing Education of NEHU since the Academic staff college, was abolished by the U.G.C. in 1992.
6. Necessary steps for delinking of + 2 from Colleges are being taken up by the State Govt. in a phase manner. 33 High Schools all over the State, will be upgraded into Higher Secondary Schools, under the control and management of the Meghalaya Board of School Education.

7. At present, there are no Autonomous Colleges in the State. Steps are being taken by NEHU to convert one or two colleges of the State as Autonomous Colleges.
  
8. The Indira Gandhi National Open University has a Regional Centre for the North Eastern Region in Shillong. The Centre is conducting Degree Courses in Arts, Science and Commerce. There are two Study Centres, in Meghalaya, one in Shillong and the other is in Tura.
  
9. Distance Education Courses are all conducted by the North Eastern Hill University, in Arts, Science and Commerce streams.

SCERTProgramme of ActionStrengthening of Science and Mathematics Education1. Continuation of the existing Schemes.

- a) For strengthening Science and Mathematics Education at the school level, the SCERT has taken up a no. of programmes.

1. Evening Coaching Classes in Science, Mathematics and English for Tribal students.

The SCERT will continue to conduct Evening Coaching Classes for tribal students. The aims and objectives these classes are

- i) to encourage and popularise the study of Science and Mathematics among tribal students.
- ii) To improve and strengthen the foundation of students in these subjects.
- iii) to improve their performance in the H.S.L.C. examination in these subjects.

The Coaching Classes are conducted for a period of 3 months. During 92-93 there were 48 centres which are spread all over the state. The District wise break up of the centre are as follows :-

	<u>Rural</u> <u>centre</u>	<u>Urban</u> <u>centre</u>	<u>Total</u>	<u>No. of R.Ps.</u>
East Khasi Hills	8	3	11	66
West Khasi Hills	8	x	8	48
Ri Bhoi	3	x	3	18
Jaintia Hills	5	2	7	42
East Garo Hills	6	1	7	42
West Garo Hills	6	3	9	54
South Garo Hills	3	x	3	18

During 1993-94 the above centres will be continued and two more rural centres would be added in East Khasi Hills. Hence the total no. of Centres proposed for 93-94 is 50 centres.

2. Coaching class for H.S.L.C. Private Candidates :

The SCERT will continue to conduct the Coaching classes for H.S.L.C. private candidates. At present there are 30 coaching class centres throughout the state. These coaching classes are for the period of 6 months and coaching is provided in 5 major subjects, namely, English, Mathematics, Science, History and Geography.

3. State Talent Search schemes :

The SCERT will continue to take up the State Talent Search schemes namely (a) State Talent Search at the close of the High School stage (b) State Talent Search at the close of the Middle School stage.

The objective of these schemes is to identify tribal students talented in Science and Mathematics and also to nurture their talent and help them to prepare for higher studies in Science and technology and other professional courses.

4. Minimum Levels of Learning :

SCERT has imparted training of school teachers based on the Minimum learning continuum, 1979(MLC) which has been incorporated in the revised curriculum.

Following the Workshop-cum-Advocary Meeting regarding the implementation of the MLLS in the North Eastern States which was held at Guahati with effect from 22nd to 25th September, 1992, a plan of Action was prepared and submitted to Govt. for consideration and sanction.

The Plan of Action involved preparation handbook for teachers in English to be translated into Khasi and Garo languages. Printing of translated materials, training of teacher educators and finally training of primary school teachers.

It is proposed to take up the programme on MLLs to cover the primary school teachers in the state. Follow action will be taken up from time to time and to suggest remedies and modifications of the programme.

Training of School teachers : With the implementation of the revised curriculum and syllabi there is an urgent need to provide in-service training to school teachers.

Training of School teacher have been conducted so as to make them able to handle the new text books, etc. These trainings are being conducted from time to time so as to cover all the school teachers for example a batch of 259 secondary school teachers teaching science and mathematics has been proposed during 93-94 and a batch of 382 secondary school teachers teaching social science is being trained. Training of school teachers will be taken up and strengthened.

6. Evaluation : In the area of examination reform, a scheme to develop model questions and question paper in science and Mathematics for selection upper primary school teachers is being implemented.

7. Research and Development : SCERT will take up research studies on immediate and pressing problems of the school education which are immediately identified as follows :

a) Dropouts at the school level :

On order to assess the magnitude of the problem of the dropout rates, a project will be taken up to conduct a study and to construct a flow of cohort to identify the causes and suggest remedies to tackle the problem, with the end in view to improve the retention rate and to achieve UEE at the earliest possible.

b) Underqualified teachers :

The presence of the high percentage of underqualified teachers calls for concerted effort to improve their proficiency for better classroom treatment. This calls for an intensive in-service training to strengthen their competencies in various subject areas.

c) Action Research :

It is proposed to take up Action Research and develops classroom research for wider dissemination to the school teachers for their try out and further improvement.

d) Development of Enriched Materials :

With the introduction of the new curriculum and the demand for effective implementation of the NPE and its programme of action it is felt that enriched materials have to be developed for effective classroom treatment in different subject areas.

e) Monitoring and strengthening of teachers Education at the Elementary levels.

It is felt necessary that teachers Education needs to be revamped especially at the elementary education with the setting up of DIETs as the nodal agency at the District level, SCERT as the apex body will undertake the tasks to provide academic guidance of the DIETs and the teachers training Institutes.

f) Continuing education and Post literacy education :

Continuing education for the dropouts and the post literates will be undertaken to provide relevant education in accordance with their environmental needs to improve their quality of life through training and dissemination of information.

g) Linkages between research activities and improvement of educational process :

In this aspect it is felt necessary to undertake research study and the findings of which would be tried out and utilised for further improvement of educational process.

h) Linkages of Social Science research and curriculum renewal

In order to strengthen education and to ensure steps to ensure participation in education it is felt that the social aspect, the economic aspect, the cultural aspect and even the political aspect are important aspects which education cannot ignore. These four aspects constitute the total system of education. As such social science research needs to be strengthened for the information and formulation of policy with the end in view to have a linkage with the curriculum renewal. It is therefore, proposed to take up social science research as a step towards linking it with curriculum renewal.

i) Quantitative and qualitative aspects of education :

We cannot ignore the two aspects of education which can be termed as quantitative and qualitative aspects. Quantitatively we have to expand education to have a wide coverage with the minimum level of learning to ensure effective participation of the people in various development programmes of the Nation or the Region. The wheel of planning cannot rotate by itself without the soul behind it and that soul is man which education is handling. Expansion of qualitative education calls not only for formal education but also non formal and adult education.

But we also need qualitative education for the most competent to ensure leadership on different areas.

These two aspects of education cannot therefore be ignored to develop the man power to improve the productive capacity of the people.

The NPE has very impressively spoken about diversion of human resources to the two streams, the vocational streams and the academic streams. The success of this idea will depend much upon the successful implementation of the basic foundation of education to fit in into the two streams.

It is therefore, proposed that SCERT will take up the study and the implementation of these two aspects of education.

j) Language Development : The two main tribal languages of Meghalaya are Khasi & Garo. These languages are taught in school and colleges. The Khasi language is now taught at the University level upto M.Phil standard. However, these two languages need further development on matters relating to standardisation of writing including the use of borrowed words, spelling, word juncture, etc. SCERT is organising seminar in this aspect with the help of experts from NEHU, College and SCERT and will continue these programmes.

k) Innovative Experiments and Practice in School Education :

In order to bring about a radical improvement in the academic field at the school education it is felt necessary to undertake certain innovative experiments and practice in the school education with the end in view to improve the classroom situation through research studies and innovation. The programme will be on a continuing basis based on concentration effects. Based on the findings and innovative practice adopted the innovative programmes and practice will be differed for wider coverage. In this regard it is proposed to adopt five schools in each District to serve as Model schools under the over all guidance of SCERT.

## NEED FOR PHYSICAL INFRASTRUCTURE

Another acute drawback of the SCERT which is often felt is the lack of Physical infrastructure like Lecture Halls, Seminar rooms, Hostel accommodation etc., which are essential for every programme of the SCERT. The absence of proper physical facilities greatly hampers the effectiveness of the SCERT programme.

For minimum efficiency and effectiveness, the following facilities are considered essential :

### A. Instructional and Academic

1. Conference room	- 1 No.
2. Lecture halls	- 3 Nos.
3. Seminar room	- 1 No.
4. Laboratory for	
(i) Physics	- 1 No.
(ii) Chemistry	- 1 No.
(iii) Botany	- 1 No.
(iv) Zoology	- 1 No.
(v) Maths	- 1 No.
5. Science Gallery	- 1 No.
6. Computer Room	- 1 No.
7. Projection room	- 1 No.

B. Hostel Building/Guest House : 2 Hostels are required, 1(one) for male and another for female trainees with capacity of accommodate 50 each.

Also a Guest House to accommodate at least 8 persons is also felt necessary, for the accommodation of experts from outside such as from NCERT, NIEPA etc.

The approximate floor space requirement of all the above would be as under :

1. Administrative Unit (i.e. office space requirement)	= 500 sq.m(Approx
2. Instructional and Academic Unit	= 736 sq.m( "
3. Hostel and Guest House	= 750+75=825 sq.m( "

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Grand Total= 2061 sq.m



## I. STAGE

### Single studio set-up for radio/sound

<u>1.</u>	<u>Nomenclature</u>	<u>Area in Sq.m.</u>
1.	Sound studio air-conditioned and acoustically treated	30 Sq. m.
2.	Control Room and Snnouncer's Booth Airconditioned and Acoustically treated	10 Sq. m.
3.	Dubbing Room A/C and A/treated	15 Sq. m.
4.	Conference Hall cum Lecture Theatre A/C	30 Sq. m.
5.	Airconditioning Room	20 Sq. m.
6.	Maintenance Room	10 Sq. m.
7.	Power supply and Automatic Voltage regulator room.	10 Sq. m.
8.	Technical Stores	20 Sq. m.
Total		145 Sq. m.

## II. STAGE

### Hardware Recruitment-Technical Area-wise

<u>A.</u>	<u>Location</u>	<u>Equipment</u>	<u>Quantity</u>
	Studio	1) Mikes	4 Nos.
		2) Loudspeaker	1 No.
		3) Wall Clock Electronic Battery Operated	1 No.
		4) Table and Chair	1 set.
		5) Warning Light	2 sets.
B.	Control Room.	1) Audio Mixer Sch.	1
		2) BEL Tape Playback Deck Lab. 553	2
		3) BEL Turntable	1
		4) BEL LAB 552 Console-Tape Recorder	1
		5) Chair Revolving	2
		Console Table	1
		6) Head Set	2
		7) Loudspeaker	1
		8) BEL 8W Monitoring Amp.	2
		9) 19" Equipment Rack	1
		10) Talk Back facility	1
		11) Wall Electronic Clock	1

C.	<u>DUBBING ROOM</u>	1) Tape Playback Deck BEL LAB 553	1
		2) BEL LAB 552 Tape Recorder	2
		3) Electronic Wall Clock	1
		4) $\frac{1}{4}$ " Magnetic Tape	50
D.	<u>CONFERENCE ROOM</u>	1) Tape Recorder BEL LAB 551	1
		2) Loud Speaker	1
		3) Electronic Wall Clock	1
		4) 1.5 Ton Window Type Airconditioners.	2
		5) Cassette Recorder complete with mikes, Loudspeaker, Mikestand etc.	
		6) Chairs	40
E.	<u>AIR CONDITION ROOM</u>	1) Air condition Plant 7.5 Ton	1
F.	<u>POWER SUPPLY &amp; AIR ROOM</u>	1) Power supply distribution Board with switches etc.	1
		2) Automatic Voltage Regulator 7 KVA	1
G.	<u>MAINTENANCE ROOM</u>	1) Multimeter	2
		2) Audio Oscillator	2
		3) Maintenance Table & Furniture	1 set.
H.	<u>TECHNICAL STORES</u>	1) Steel Cupboard and Racks and other Furniture.	

# III STAGE

## STAFF RECRUITMENT

### A. ENGINEERING

1. Asstt. Engineer	1
2. Technical Assistant	2
3. Sound Recordist	1
4. Technician	2
5. KHAJASI	2
6. Store Keeper(UDC)(Technical)	1

### B. PRODUCTION STAFF

1. Producer	2
2. Production Assistant	2

### C. GENERAL SUPPORT STAFF

1. Steno Gr. III	1
2. Typist	2
3. Peons	2
4. Farash	1
5. Chowkidars	2

## SCERT AND THE PROGRAMME OF ACTION

Since the adoption of the National Policy on Education (NPE) 1986 and the introduction of the Programme of Action 1986 (since revised in 1992) SCERT has made a serious attempt to translate into action some of the main points focussed in the P.O.A as follows :-

### 1. Education for Women's equality :

The new curriculum developed by SCERT (which is being implemented since 1991 in all schools in the state), do not treat girls' education as inferior to that of boys, both boys and girls have to read the same curriculum.

In the past, Mathematics is elective to girls they could take 'Domestic Science' in its place. But in the new curriculum Mathematics is compulsory for both boys and girls. This is the case not only for Maths but for other subjects as well.

### 2. Education for Scheduled Castes/Scheduled Tribes and other Backwards sections.

#### i) Special Coaching :

The SCERT has set up evening Coaching Classes in both urban and rural areas of different Districts for students of Secondary stage i.e. classes IX, & X. These coaching classes are provided free of cost to tribal students with a view to laying the foundation of Mathematics Science and English. At present there are 47 centres of such coaching classes in the whole state covering both urban and rural areas.

Another coaching class is conducted by the SCERT for H.S.L.C. private candidates of 6 months duration in 30 centres throughout the State in 5 major subjects viz. English, Maths., Science, History and Geography. This scheme is provided to cater to the needs of the deprived sections of the youths who aspire for attainment of education.

#### ii) Incentives :

The SCERT, through the Mathematics unit, have taken up 2(two) Talent Search Schemes as follows :-

- a) State Talent Search at the close of the High School stage
- b) State Talent Search at the close of Middle School Stage.

The objective of the two schemes is to identify tribal students talented in Science and Mathematics with the end in view to nurture their talent and help them to prepare for higher studies in Science and Technology and other professional courses.

It is expected that these young talents will serve as the feeders to the future manpower requirements of the State in its various development schemes.

- iii) Medium : The Medium of instruction at the Lower Primary level is in the mother tongue. Teaching & learning materials are also in the mother tongue upto class IV. For the Upper Primary Stage, that is, Classes V - VII the medium is English both for instruction as well as teaching learning materials.
- iv) National Integration : The New curriculum as developed by SCERT contains the core elements as stipulated in the National Curriculum framework of NPE 1986 to promote National Integration.

### 3. Curriculum :

SCERT has revised the school curriculum from classes I to X in accordance with the National Curriculum framework as envisaged in National Policy on Education. The basic objectives as reflected in the National Core Curriculum having taken care of include the ten Core elements as indicated below :

1. History of India's freedom Movement.
2. Constitutional obligations.
3. Content essential to nurture National Identity.
4. India's 'Common Cultural heritage'.
5. Egalitarianism, Democracy and Socialism.
6. Equality of sexes.
7. Protection of the Environment.
8. Removal of Social barriers.
9. Observance of the small family norms.
10. Inculcation of Scientific temper.

The revised Curriculum was recommended to Meghalaya Board of School Education and it is now implemented.

Training of Teachers :

- i) Besides the regular in-service training of teachers, SCERT had also conducted the Massive Orientation Programme for school teachers to acquaint and apprise the teachers at the Primary, the Middle school and the High School levels in the context of the New Education Policy(1986) and the Programme of Action in accordance with the modules on Teacher Education Package developed by NCERT.
- ii) With the implementation of the new curriculum, training programmes based on it were organised by the SCERT for Lower Primary school teachers during 1990-91.

In the following year, the training on the new syllabus was undertaken in two phases as follows :-

Phase I : A 5 days training programme for Instructors of Teachers training Institutes (TTI) was conducted by subject expert from SCERT.

Phase II : Batches of Lower Primary School teachers were deputed to undergo a one month training in all T.T.I's in the State by the Instructors trained in Phase I above.

Minimum Levels of Learning (MLL) : SCERT has imparted training of school teachers based on the Minimum learning Continuum (MLC) , which is now modified as MLL. SCERT has taken up this new aspect of MLL with NCSERT. Training of teachers to this effect is being taken up.

6. Language development : The two main tribal languages of Meghalaya are Khasi and Garo. These languages have been taught in schools and colleges. The Khasi language is now taught at the University level, upto M.Phil standard. However, these two languages need further development on matters relating to standardisation of Writing including the use of borrowed words, spelling, word juncture etc. SCERT, therefore, is organising a Seminar to this effect in July next where expertise are drawn from NEHU, retired professors, SCERT personnels etc.
7. Non-formal Education : SCERT provides expertise on request for training of teachers of Non-formal Education.
8. Teachers Education : SCERT has once revised the Teacher education curriculum for the Basic Training Centres based on NCTE documents. With the coming of the National Policy Education this curriculum is again now reviewed.

SCERT has also taken up the task to revise the Teachers Curriculum for the Normal Training School in collaboration with MBOSE. The process is now going on.

9. Professional development of the Inspecting and Supervising Officers.

SCERT has been taken up the training of the Inspecting and the Supervising officers at the school level with the end in view to provide competencies on matters relating to inspection and supervision of schools viz the NPE 1986 and the Programme of Active.

Besides SCERT personnels experts from NIEPA, New Delhi and NEHU are also involved in the programme.

10. Evaluation : SCERT has started some space work on evaluation and model questions with the end in view to introduce the examination reforms and to suggest to Meghalaya Board of School Education for this purpose. Model questions in Science, Mathematics and History have been developed in collaboration with NCERT.

It is also initiating with NCERT to collaborate on the area of continuous comprehensive Evaluation for further improvement of the evaluation system.

11. Health and Physical Education : This has been included in the revised Curriculum of SCERT which is being implemented by Meghalaya Board of School Education.

12. Cultural perspective : As envisaged in the NPE and the POA, interlinking of education and culture has been incorporated in the curriculum. The introduction of local topics and culture is an effort to cultivate the rich heritage of India by encouraging to know about local culture, local history, dance etc., with a sense to cultivate aesthetic values.

13. Distance Education : In Meghalaya distance educational programme are carried out through radio broadcast. The receiving sets that used at present is through the RCCP.

14. Environmental Education : While revising the school curriculum SCERT has also taken special care relating to environment pollution. It has included computing topics at the school level in graded system so that there would be a general awareness on protection and judicious use of environment. It has also included topics to create awareness of the vice of pollution and its evil consequences. These topics are widely distributed from classes I to X and are now implemented by MBOSE.

A list of these topics are appended in Annexure 'A'.



ASPECTS OF ENVIRONMENT INCLUDE IN THE NEW CURRICULUM

CLASS	UNIT	LESSON	ELEMENTS OF ENVIRONMENT
I	2	FAMILY	Care of pets and domestic animals
	6	Animals around us	Care of pets and domestic animals
	4	School	Care of things in the class room and outside.
	7	Plant around us	Care of plants in and around the house and school.
	10	Water	Difference between clean and polluted water and the danger of drinking polluted water.
II	4	School and its neighbourhood	Care of equipments and articles in the school. b) Keeping the classroom and its surroundings clean.
	5	Animals around us	Care of pets and domestic animals and avoiding indiscriminate killing of harmless animals.
	6	Plants around us	Care of plants in the home and school.
	7	Life and occupation of people in the neighbourhood	a) Participating in activities for keeping the surrounding clean. b) Identifying the insanitary condition in the locality.
	8	Water	Cause of pollution of sources of drinking water.
	9.	The Earth	a) Forests provide fresh air and shelter to animals. b) Deforestation leads to soil erosion.
III	1	Living things	a) Taking care of living things in the environment. b) Need to conserve the natural resources in the locality e.g. need of protecting forests from fire, indiscriminate felling of trees and jhuming.
IV	1	Living things	Ways in which plants and animals are cared for and protected - e.g. protection of forest and wild life national parks and wild life Sanctuary in the country.

CLASS	UNIT	LESSONS	ELEMENT OF ENVIRONMENT
V	1	Living thing	Environmental change adversely effect animals and plants' life e.g. environmental pollution has harmful effects on plants and animals.
	2	Human Body, Nutrition and Health	Factors contributing to insanitary conditions in the community and steps to keep the environment clean - e.g. collection and proper disposal of garbage and waste materials and recycling of water materisla.
	3	Soil erosion and conserva-tion	Causes and harmful effects of soil erosion and how it is to be pro- tected.
	4	Air and its usefulness	Identifying the factors causing air pollution, its harmful effects and ways in which air pollution can be minimized.
	5	Force, Work and Energy	Reasons for conserving energy, ways of conserving energy and avoiding wastage of energy.
	7	Natural Resour- ces of the earth	Reasons for conserving natural resources and steps to avoid wastage of natural resources.
VI	10	Water	Water is a major natural resources and need conservation - e.g. pollution of water by indiscreet human activity - industrial influence, seawages, garbages carcasses prevention of wastage and pollution.
VII	4	Sound	Noise is a source of health hazards
	7	Energy	Renewable and non-renewable forms of energy, their advantages and disadvantages.
	9	Water	Water pollution - its causes, harmful effects and its control.
	10	Air pollution	Its causes and harmful effects.
	12	Soil erosion and Soil pollution	Its causes and harmful effects and conservation.
	14	Agricultural practices and Implements.	Dangers of injudicious use of fertilisers, pesticides and insecticides which lead to environmental degradation.

CLASS	UNIT	LESSON	ELEMENTS OF ENVIRONMENT
VIII	3	Alternative source of Energy	Too much dependences on non-renewable sources of energy may lead to energy crisis - need of increasing use of renewable sources of Energy.
	4	Atom and Atomic	Hazards of nuclear fissions.
	13	Conservation of Natural Resources	Conservation of natural resources is essential - e.g. depletion of natural resources leads to environmental degradation and is a judicious use of natural resources for economic balance and need of conservation practices.
IX	1	Matter-Nature Behaviour	Use of energy and harmful effects of nuclear fission products.
X	4	Human Beings	Appreciating the need and importance of maintaining a balance in nature - e.g. reclamation of desert, desalination of sea water, reforestration.
	5	Natural Resources	<p>Pollution of the environment - e.g. air pollution due to carbondioxide carbon monoxide, oxides of sulphur nitrogen noxious gases, metallic, particles like asbestos, hydrocarbons etc. - formation of smog, danger of excessive use of pesticides, radioactive substances, noise pollution - suggesting ways for minimizing natural resources.</p> <p>-Effective managements of living resources and recycling of waste materials.</p> <p>-Understanding the short-term and long-term damages to human beings by harmful radiations and need of careful disposal of radioactive wastes.</p> <p>-factors leading to energy crisis and measure to check energy crisis.</p>

## HEALTH EDUCATION

### A. LOWER PRIMARY LEVEL

At the Lower Primary level Health Education forms a part of environmental studies. As such components of the environment relating to Health Education have been included in the Environmental studies curriculum and syllabus for different classes.

### B. UPPER PRIMARY LEVEL

#### CLASS - VII

Unit/Chapter	Content Outline
Environmental Hygiene	Meaning and importance of Environmental hygiene, Healthful housing safe water supply, proper disposal of refuse and night soil (method of disposal should only those which are common and practicable in our state).

### C. SECONDARY LEVEL

#### Class - VIII

Pollution	Type and its changes. Pollution relevant to specific areas like - a) Rural area b) Urban area c) Industrial area Measures to prevent pollution. What is waste and how it can be used.
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#### CLASS IX

Environmental Health	1) The need to improve health conditions and environment in the village/town. 2) Improved practice of waste disposal. 3) Cooperating in keeping drinking water, air and land clean and unpolluted. 4) Participatism in maintaining healthy environmental conditions in the school.
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#### CLASS X

Environmental Health	1) Water pollution and its purification. 2) Use of water for drinking and cooking. 3) Air pollution for its prevention 4) Environment improvement.
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GEOGRAPHY : MAN AND ENVIRONMENT

CLASS	MAIN THEME	UNDERSTANDING
IX & X	People and Ecological Balance.	<ol style="list-style-type: none"><li>1) The population of the World is constantly rising.</li><li>2) The distribution of population on the earth's surface is not even.</li><li>3) The rapid growth of population has created problems such as pollution, shortage of food and energy.</li><li>4) With the rapid growing population the ecological balance is very essential.</li></ol>

CIVICS :

CLASS	LEARNING SITUATION	UNDERSTANDING
III	Caring for people and things around us.	<ol style="list-style-type: none"><li>1. Understanding the importance of keeping things properly.</li><li>2. Understanding the importance of keeping the environment clean.</li><li>3. Participating in cleanliness programmes.</li><li>4. Taking care of plants and things sharing with other and taking interest in the environment.</li><li>5. Creating a sense of responsibility and belongingness.</li><li>6. Recognises the use of the natural resources like forest, water and the wastage of indiscriminate cutting of trees.</li></ol>

ECONOMICS

CLASS	CONTENT OUTLINE
VIII	Environment as one of the constituent of Social infrastructure.
IX	<u>Environment :</u> Need for balanced ecology, environmental pollution, i.e. pollution of air, water and land has increased because of many inter-related factors such as population increase, consumption of food, energy consumption such as coal and nuclear power. Impact of environmental pollution on society and quality of life. Ways and means to reduce pollution.

STATUS OF EDUCATIONAL STATISTICS IN MEGHALAYA

1. Annual Education Statistics in Meghalaya are collected from University, Meghalaya Board of School Education, Higher Education (Affiliated and Non-affiliated, Higher Secondary (10+2 Pattern) High School, M.E. School and Primary Schools. Up to the year 1990-91 Numerical Statistics were collected in three sets of Forms viz NS I, NS II and NS III. Forms NS I are meant for University, NS II for Colleges and NS III for High School/ME School and Primary Schools. Financial Statistics are collected in two sets of forms viz FS I and FS II. Forms FS I are meant for Colleges and High Schools and FS II are meant for ME and Primary Schools.
  
2. Detail statistics collected on the above mentioned forms are compiled and submitted to the Govt. of India according to the time scheduled in different sets of forms viz (i) ES I(S) for Schools and ES I(C) for Colleges and Higher Education. The information contained in these forms are No. of Institution (management wise) Enrolment (Class-wise and Sex-wise) No. of repeaters, No. of teachers (trained and Untrained) (ii) Form ES II (S) for schools and ES II(C) for Colleges Financial data showing income from different sources viz State, Central Fees Public contribution etc. are shown. Expenditure according to different item viz Salary, Building, Library and Hostels. (iii) Forms ES III Examination Results (iv) Form ES IV(S) and ES IV(C) - Numerical statistics showing the enrolment class-wise of scheduled caste/scheduled tribe and No. of teachers Scheduled castes/Scheduled tribe sex wise trained and untrained are compiled.
  
3. From 1991-92 the Govt. of India have introduced revised forms for collection of Educational Statistics in all states and Union territories. The Numerical statistics are to be collected in three sets of computerised forms viz (i) S 1 for Primary and Junior Basic (ii) S 2 for Middle/Senior Basic and (iii) S 3 for High/Higher Secondary schools collection and compilation of Financial statistics will however be the same as those of 1990-91.

Printing of Forms SI, S II and S III was initiated in the month of Oct. 1991. There was however inordinate delay in printing of the forms by the Govt. Press and the forms were finally printed in the month of April 1993. The forms have been distributed to the District officers and concerned Institutions. Necessary instruction for giving code number to the Institutions and filling up of forms has been given. Action is now being taken to get the forms for the Year 1992-93 as well as 1993-94 printed.

4. Necessary steps are being taken to expedite early collection of the forms S I, S II and S III for the year 1991-92 from all institutions. As per Govt. of India's instruction consolidation of these statistics i.e. S I, S II and S III will be taken up on forms ES I, ES II, ES III and ES IV for the Year 1991-92. However as per meeting held on 8th June, 1993 it was decided that after consolidation of ES series, the forms will be computerised at the State NIC.
5. Printing of S I, S II and S III(Numerical) forms as well as FS I and FS II(financial) for the year 1992-93 and 1993-94 has been taken with the Govt. Press, Govt. Press was also intimated regarding the Scheme of subsidisation by the Govt. of India in printing of the Forms S I, S II and S III.
6. Other Educational Statistics concerning with Govt. of India viz Selected Educational statistics as on 1.1.93 as well as Selected information on School Education for the year 1992-93 have already been submitted to the Govt. of India. As regards report on commissioner on linguistic minority action is now being taken on the 32nd report.
7. Plan of Action for convergence of the existing scheme of computerisation of Educational statistics with COPE : Govt. of India has been informed about the State preparedness to accept the scheme of computerisation of Educational statistics, vide Govt. letter No.EDN.75/92/22, dt. 6th May, 1992.

8. Statistical machinery - (a) At the state level there is Statistical unit consisting of one Statistical Officer and three statistical Assistant. (b) At the District level there is one Statistical Assistant in each five district offices. In the offices of the Deputy Inspector of Schools there are only seven statistical Assistants out of fifteen offices.
9. Strengthening of Statistical unit - Considering the increased in the number of Institutions Enrolment as well as increase of number of schemes there is justification for strengthening of Statistical units in the District and State level. It is therefore suggested that nine posts of S.A. in the newly established Offices of the Deputy Inspector of Schools be created.

At State level : Strengthening of Statistical unit is suggested to be taken as per recommendation of the High Level committee of the Govt. of India in September 1982 at para 4.16(a) of the recommendation which States that "the Statistical/Planning/Monitoring should be under the charge of one senior officer preferably not below the rank of Deputy Director, with one or two Assistant Director to assist in the work of planning/Statistics and Monitoring".

10. Position regarding submission of Educational Statistics to the Govt. of India : All ES(Series) forms except ES II (S) have been submitted up to the Year 1990-91 collection of statistics for 1991-92 is now in progress.

Statement showing the Number of Educational Institutions in Meghalaya during the year 1992-93.

I Number of Institutions :

1. Pre-Primary	x
2. Primary	4170
3. M E	705
4. High Schools	374

II Enrolment by Stages :

	<u>Boys</u>	<u>Girls</u>	<u>Total</u>
1. Pre-Primary	62518	59448	121966
2. Primary	77082	72333	149415
3. M E	41903	36631	78534
4. High School	12828	11232	24060



III

No. of Teachers :

	<u>Men</u>	<u>Women</u>	<u>Total</u>
1. Primary	4248	2492	6740
2. M E	1990	1128	3038
3. High Schools	1511	1460	2971

## CHAPTER --- XIII

### TECHNICAL EDUCATION

During the last few years after adoption of the National Policy on Education '86 a few steps have been taken in Meghalaya in the light of the policy directions given in the Programme of Action on the NPE.

1. CREATION OF NEW BODIES : Meghalaya has only one Polytechnic offering Diploma Courses in Civil, Electrical and Mechanical Engg. This Polytechnic was affiliated to the State Council for Technical Education, Assam for more than 27 years since its inception in 1965.

State Council for Technical Education Meghalaya was established in the year 1992 to look after all aspects of technician education in the State, as per recommendation of the programme of Action and is now functioning since July, 1992.

2. WOMEN'S POLYTECHNIC : One Polytechnic exclusively for women has been proposed to fulfil the needs of technical education of the State and it is under consideration of the Govt.
3. CORRECTION OF REGIONAL IMBALANCE : One more Polytechnic with diversified courses like Radio & TV Engg., Automobile Engg. and construction Technology has been planned at Tura for meeting the regional imbalance of the State, in so far as the facility for technical education is concerned.
4. COMPUTER EDUCATION : In respect of Computer Education, Meghalaya has not been able to make much headway due to shortage of technical personnel in the field of Computers. TWO ECIL Computer System have been received by the Shillong Polytechnic from the Govt. of India through the Department of Electronics and an amount of Rs. 3.00 lakhs has also been received to purchase another Computer System for the benefit of the students.

It is now under process to acquire the Computer System and a training programme is being organised for the in-service incumbents to help the Polytechnic initiate some programmes in Computers.

5. MODERNISATION OF WORKSHOPS & LABORATORIES : On modernisation and removal of absolsence in the workshops and Laboratories of the Polytechnic, substantial central Grants have been received and the programme of modernisation is currently going on.
6. COMMUNITY POLYTECHNIC : The Community Polytechnic Scheme introduced in Shillong Polytechnic has been making very slow progress due to shortage of technical teachers in the Polytechnic which has become endemic. However a programme is being chalked out under the aegies of the State Council for Technical Education, Meghalaya to introduce a short term training course on modular pattern for training of rural youths in the trade of draughtmanship and also some untrained tracers of some of the Govt. Department, under the Community Polytechnic Scheme. The curriculum for the course has already been finalised in consultation with the T.T.T.I, Eastern Region, Calcutta.
7. ✓ PROVISION OF ADDITIONAL FACILITIES IN POLYTECHNIC : Shillong Polytechnic is a co.educational Institution where about 30 - 35 % Girl students study and the percentage varies from time to time. While there is a Boys' Hostel with provision for 270 students, there were no Girls Hostel provided. Now a Girls Hostel is under construction for the Girls students of the Polytechnic and is expected to be completed shortly.
- In addition ot the Hostels, two Commom Rooms have been provided one for boys and the other for Girls in the Polytechnic.
8. EXPANSION OF POLYTECHNIC - INTREBUCTION OF NEW COURSES : A Diploma Course in Electronics and telecommunication is being introduced from the current academic session on the approval of the AICTE and the process of admission is currently on.

MANAGEMENT OF EDUCATION

The Programme of Action, 1992 on Management of Education has laid emphasis amongst other things on decentralisation of education through democratic participation by elected representatives of the people in decision making at the district, sub-district and Panchayat levels. However unlike most states in the rest of the Country, decentralisation in Meghalaya will have to take a different shape. This is because the Constitution (seventy third Amendment) Act, 1992 does not apply this State. The Panchayati Raj system is absent in the State and therefore the question of entrusting education to Panchayati Raj institutions does not arise.

However the Sixth Schedule to the Constitution of India has provided for the autonomous District Councils to establish, construct or manage primary schools accordingly the three District Councils have been managing all the Primary Schools in the State so far.

The roll of the State Govt. was only to argument the financial resources of the District Councils to enable them to pay the salaries of teachers. However in course of time with the proliferation in the number of Primary Schools Govt. has had to shoulder the entire financial burden involved. Due to such reasons including inavailability of the District Councils to manage and administer the Primary Schools effectively in the early 1980's the State Govt. had had to resort to powers conferred upon it by para 16(2) of the Sixth Schedule to the Constitution of India and assume the powers of the District Councils for six months at a time upto the present time.

The State Govt. recognising that this adhoc arrangement is not conducive to long-term planning, effective administration, control and supervision of Primary education, has considered taking over on a permanent basis the administration and management of Primary Schools in the State. To that end Govt. has perforce to proceed in a direction which is contrary

to the all India trend as decentralisation had not been a very happy experience for the State.

An enabling legislation is now in the final stages of preparation which will give Govt. full control of all primary schools previously run and managed by the District Councils. The approach is to reduce the area of educational administration, The State have recently created 15 Sub-Divisions each under the head of a Deputy Inspector of Schools who will look after Primary and Upper Primary Education. This it is hoped will give a more effective management of education at the field level. Moreover, the majority of our schools are under private management hence the people's involvement in the management of education is already high. For each school there is a school managing committee and in the cope of Primary Schools, the village durbar itself recommend the constitution of the school committee. Hence the concept of a village Education Committee already exists in the State.

#### STATE ADVISORY BOARDS OF EDUCATION :

The State Govt. recognised the need to coordinate all human resource development programmes through an apex body on the lines of the Central Advisory Board of Education at the State level. The Meghalaya School Education Act., 1981 have got a provision for such a body. After a formal policy decision has been taken the draft guidelines formulated by NIEPA will be consulted.

NIEPA DC



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