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STANDING COMMITTEE ON ENERGY (2003) THIRTEENTH LOK SABHA

MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES

SMALL HYDRO POWER PROGRAMME - AN EVALUATION

[Action Taken by the Government on the Recommendations contained in the Twentysixth Report of the Standing Committee on Energy (Thirteenth Lok Sabha)]

THIRTY-THIRD REPORT



LOK SABHA SECRETARIAT NEW DELHI

February, 2003 / Magha, 1924 (Saka)

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COMPOSITION OF THE STANDING COMMITTEE ON ENERGY (2003)

Shri Sontosh Mohan Dev - Chairman

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- 44. Vacant
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2.	Shri P.K. Bhandari	-	Director
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4. Shri P.C. Tripathy - Assistant Director

COMPOSITION OF THE SUB-COMMITTEE 'F' ON ACTION TAKEN REPORTS

Shri Sontosh Mohan Dev

- Chairman

- Convenor

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 - Shri Basudeb Acharia
- 4. Shri Prakash Yashwant Ambedkar
- 5. Shri Vijayendra Pal Singh Badnore
- 6. Shri Santosh Bagrodia

3.

INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorised by the Committee to present the Report on their behalf, present this 33rd Report on Action Taken by the Government on the recommendations contained in the 26th Report of the Standing Committee on Energy (2002-03) on the subject "Small Hydro Power Programme – An Evaluation" relating to the Ministry of Non-Conventional Energy Sources.

2. The Twenty-sixth Report of the Standing Committee on Energy was presented to Hon'ble Speaker, Lok Sabha on 28th December, 2001 and to Lok Sabha on 7th March, 2002. Replies of the Government to all the recommendations contained in the Report were received on 27th June, 2002.

3. The Sub-Committee on Action Taken Reports as well as Standing Committee on Energy considered and adopted this Report at their sitting held on 14th February, 2003.

4. An analysis of the Action Taken by Government on the recommendations contained in the Twenty-Sixth Report of the Committee is given at Annexure-III.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

NEW DELHI; <u>14 February, 2003</u> 25 Magha , 1924 (Saka) SONTOSH MOHAN DEV Chairman Standing Committee on Energy

CHAPTER I

REPORT

This Report of the Committee deals with the Action Taken by the Government on the recommendations contained in the Twenty – Sixth Report (Thirteenth Lok Sabha) of the Standing Committee on Energy on "Small Hydro Power Programme - An Evaluation" of the Ministry of Non-Conventional Energy Sources which was presented to Lok Sabha on 7th March, 2002.

2. Action Notes have been received from the Government in respect of all the recommendations contained in the Report. These have been categorised as follows:-

(i) Recommendations / Observations that have been accepted by the Government:

Sl.Nos.1,3,5,6,7,11,14,18,19,25,26,27,28,29,30,32,33,34 and 36.

(ii) Recommendations / Observations which the Committee do no desire to pursue in view of the Government's replies

Sl.No.4

(iii) Recommendations / Observations in respect of which reply of the Government has not been accepted by the Committee:

Sl.No. 2,8,9,10,12,13,17,20,21,22,23,24 and 31.

(iv) Recommendations / Observations in respect of which final reply of the Government are still awaited.

Sl.Nos. 15, 16 and 35.

3. The Committee desire that final reply in respect of the recommendation for which only interim reply have been given by the Government should be furnished to the Committee at the earliest.

4. The Committee also desire that utmost importance should be given to the implementation of recommendations accepted by the Government. In case, where it is not possible for the Government to implement the recommendations in letter and spirit for any reasons, the matter should be reported to the Committee in time with reasons for non-implementation.

5. The Committee will now deal with the Action Taken by the Government on some of their Recommendations / Observations.

A. Harnessing of Small Hydro Power Projects (SHPs) Potential

Recommendation (Sl.No.1, Para No.2.26)

6. The Committee had found that out of the total potential of 15,000 MW, sites aggregating to 10,171 MW had been identified by CEA, AHEC and State Governments and only 1,320 MW could be exploited. The Committee had desired that Government should formulate an action plan so that the remaining sites could be identified expeditiously. The Committee had also emphasized that Government should chalk-out a time bound programme to harness the estimated potential on priority basis.

7. In their Action Taken reply, the Ministry of Non-Conventional Energy Sources have stated that the installed capacity of small hydro power projects up to 25 MW station capacity has now increased to 1438 MW. There was a capacity addition of about 89 MW during 2000-01 and 75 MW during 2001-02. Ministry of Non-conventional Energy Sources is aiming towards identification of all viable potential small hydro sites by the end of 10th Five Year Plan. One of the objectives of the 10th Plan is to 'strengthen resource assessment programme and create SHP data base on GIS platform, for the country'. In order to achieve this, following steps have been taken (i) All the State Governments have been requested to draw a comprehensive action plan in order to assess the full SHP potential in their States. They have been requested to prepare a comprehensive list of potential SHP sites with a view to harness the potential on priority basis. The Ministry has offered to provide partial financial support for this activity. The Ministry has already received proposals for preparing Master Plans for the States of Chattisgarh and Kerala. (ii) As part of the UNDP-GEF Hilly Hydro Project implemented by MNES, State-of-the-Art techniques have been developed to identify potential sites using topographic maps, satellite images, flow data of major rivers etc. This has already been applied for identification of potential sites in the Himalayan and Sub-Himalayan States (13 States are covered). The State of Himachal Pradesh has further developed this model and a detailed GIS data base has been prepared on all small hydro potential sites. This work has been done at Alternate Hydro Energy Center (AHEC), IIT, Roorkee. AHEC, Roorkee has been asked to prepare a proposal to further strengthen the data base for the entire country. (iii) A joint meeting between Ministry of Power and Ministry of Non-conventional Energy Sources was held on 3rd May, 2002 to discuss the strategy and action plan for the development of mini/ micro/ small hydro projects. Hon'ble Union Minister of Power and Minister of State for Non-conventional Energy Sources were present in the meeting. The meeting was also attended by Ministry of Water Resources, CEA, CWC, NHPC, NTPC, NEEPCO, REC. The CPSUs have been asked to extend all possible help to the States for accelerated development of SHP potential in the country and to work out feasibility of all the identified SHP projects within a time bound manner.

8. Taking into consideration the huge gap between the potential and actual harnessing of small hydel capacity, the Committee had recommended identification

of sites and formulation of time bound programme, to exploit them. The Committee have taken note of steps taken by Ministry of Non-Conventional Energy Sources (MNES) in this regard. The State Governments have been requested to draw comprehensive action plan to assess the potential. MNES, however, would partially finance this activity. Further, Central Power PSUs have been asked to extend all possible help to States. In the opinion of the Committee, MNES has merely passed on the onus to the State Governments and Central power PSUs to take appropriate action. The Committee do not approve this. It is in this context, the Committee recommend that MNES together with CEA should survey all the river / canal basins and identify the potential sites. A ranking study has also to be undertaken for prioritizing the identified sites. The Committee are of the view that unless sites are identified and proactive action and lead role undertaken by MNES, nothing concrete will come out. The Committee, therefore, recommend that MNES in conjunction with CEA & other Central Agencies, should undertake Survey and Investigation (S&I) works, identify the potential sites and fully finance the cost incurred on identification of sites. Thereafter, they should involve State Governments and Central Power PSUs in this endeavour. The Committee, therefore, recommend that appropriate action should be taken by MNES and they be informed thereof.

B. Need to Assess the Potential of SHPs in Untouched and Untapped Areas

Recommendation (SL. No. 2, Para No. 2.27)

9. Considering the importance and the need to assess the potential in the relatively untouched and untapped areas like tea-estates of the North-Eastern and Southern Region States, Tail-end flow of water of mega/ major thermal/ hydro projects, dam-toe sites of the major/ small dams existed in the country and perennially running water through the snow-fed sources in the areas like Himachal Pradesh, Ladakh, Leh, etc., the Committee had recommended that tea estates be taken as a separate sector for the development and promotion of small hydro power. The Committee had also suggested that the Ministry of Non-conventional Energy Sources should come up with attractive policies and programmes to make the investment in SHPs in the tea-estates sector more remunerative.

10. In their Action Taken reply the Ministry of Non-conventional Energy Sources (MNES) have stated that the Ministry are giving special emphasis to tap the potential for the development of small hydro power projects in tea gardens, remote and isolated areas, Himalayan region including Himachal Pradesh, Ladakh, Leh etc. Out of the 20 demonstration projects being set up as part of UNDP-GEF Hilly Hydro Project, 3 projects are being set up in tea gardens (1 in Assam and 2 in Darjeeling area). These projects are in their final stages of completion and will be made operational in next 2-3 months. A strategy for the development of small hydro was discussed in detail in a meeting of Secretary, MNES with all the North Eastern States in Shillong on 11th January, 2002. The State of Assam has been requested to conduct a meeting with tea garden owners to sensitize them about the advantages of SHP projects in tea gardens. A separate meeting with the tea garden owners and visit to tea garden sites was organized in Silchar to

emphasize the usefulness and advantages of small hydro projects in tea gardens. The Ministry is giving a higher level of capital subsidy for the North Eastern and middle Himalayas, Ladakh area. For Government sector projects, support to cover project costs up to 90% of the project cost is available for projects up to 1 MW station capacity. Keeping in view the average size of tea gardens, availability of water resources etc. it is expected that the potential to set up SHP project in an individual tea garden may be less than 1 MW per project. For this range of commercial projects, the Ministry is providing highest level of interest subsidy of 7.5%. IREDA is also giving soft loan with special rebate for North Eastern States and projects in hilly areas. The Ministry is also giving financial support for undertaking detailed survey and investigation and detailed project report preparation. These incentives will make the investments in the SHP by the tea estates quite remunerative.

The Committee find that very little has been done by MNES for accelerating 11. the pace of harnessing potentials of small hydel power in tea gardens, which is relatively an untapped area. Only three demonstration projects (one in Assam and two in West Bengal) have been identified and are being set up under the UNDP / GEF Hilly Hydro Programmes. The tea industry is presently undergoing steep recession. Considering that tea estates is privately owned, the level of finance available by IREDA is meagre and may not enthuse the sector. It in this context, the Committee had recommended special dispensation for them. The action on the part of MNES indicate a casual approach. The Committee, therefore, desire that Government should re-orient their strategy and come out with attractive policy exclusively for the benefits of tea-estates of the North-Eastern and Southern-Region States. The Committee have also noticed that the reply of the Government is silent over the assessment of the small hydro potential in the relatively untouched and untapped areas of Tail-end flow of water of mega / major Thermal / Hydro projects, dam-toe sites of the major / small dams existing in the country. The Committee, reiterating their earlier recommendation, desire that the MNES should take special efforts for assessing such potential and initiate action to tap them. The Committee would like to be apprised of the outcome thereof.

C. Extention of Capital Subsidy to Canal Based SHPs in the Plain Areas

Recommendation (Sl. No. 8, Para No. 2.33)

12. Taking into consideration the high cost involved in the equipments used for Small Hydel Power projects in the plain areas, the Committee had recommended introduction of capital subsidy scheme for the canal based projects.

13. The Government in their Action Taken reply, inter-alia, stated that canal based SHPs are quite viable taking into consideration the availability of water and the quantum of electricity they are expected to generate. As a policy, the Ministry of Non-conventional Energy Sources is aiming towards increasing private sector participation in SHP development. Also, the Ministry is not providing any capital subsidy to the private sector projects and only interest subsidy is being provided. More and more private sector participation is being envisaged for canal based SHP projects. The canal based projects

are low gestation projects and are expected to be economically viable on their own. The average cost of canal based SHP projects are in the range of Rs. 3-3.50 crores per MW as against an average cost of Rs. 6-7.0 crores per MW in remote areas of North East. Taking all this into consideration, it is felt that there may not be any need to extend the capital subsidy to the canal based SHP projects to the plains areas. This was discussed and decided in a meeting taken by MOS(NES) on 30th May, 2002.

14. The Committee do not concur with the views of the Government in not extending the capital subsidy to canal SHP projects. The Committee find that taking into consideration that as against 1565 MW potential of canal based SHP, only 120 MW has been harnessed; the low gestation period and economy of scale-canal based SHP cost Rs.3-3.50 crore / MW as against Rs.6 – 7 crore / MW of other SHP are some of the factors, which weigh in favour of extending capital subsidy to them. In fact, the Committee would like to emphasise that Government should tap this potential with all the command at their disposal as it is the quickest way to obtain clean power, requiring no displacement / rehabilitation of people. Reiterating their earlier recommendation, the Committee desire that Government should grant capital subsidy to the canal based small hydro power projects in the plain areas also so that the IPPs are enthused to come in a big way for the development of this sector.

14(a). It has been brought to the notice of the Committee that some of the small hydel projects like Teesta Canal and Jaldhaka SHP are pending due to funds constraints. The Committee desire that SHPs should be completed in a time-bound period and funds should not be any constraints in completion of such projects.

D. Simplification of Clearances Procedures and Acquisition of Land for SHPs

Recommendation (Sl. Nos. 9 and 10, Para Nos. 3.34 and 3.35)

15. The Committee had found that in most of the States, not much headway has been made in accepting 'Single Window' mechanism, due to variety of reasons. The Committee had desired that a High Powered Committee be constituted involving all the departments/ agencies for expediting the clearances, in a fixed time bound manner. In the event of expiry of such a fixed period, the clearances should be deemed to have been accorded. The Committee had also recommended that the relevance of various clearances should be reviewed and the list of clearances should be minimized so that the involvement of various agencies could be minimized. In connection with the acquisition of land, the Committee had desired that the concerned State Agency responsible for the development of SHP should acquire the land first by itself, and then allot the site to the IPPs. In extreme cases when the project was delayed inordinately, the section 17 of the Land Acquisition Act, 1984 may be invoked which confers special powers of acquiring land in case of urgency on the direction of Government.

16. The Ministry of Non-conventional Energy Sources in their Action Taken reply have stated they have always been insisting and recommending to all the States for

following the concept of 'Single Window Clearance'. This concept has been followed by most of the States in a limited manner. In fact allotment of sites is done in all the States through a 'High Powered Committee'. The State Nodal Agency responsible for development of renewable energy/ small hydro coordinate all the clearances required for setting up of power projects using renewable energy sources including small hydro. The States have High Power Committees with representations from various departments/ agencies of the State Government for allotment of sites and also clearing the proposals based on various statutory clearances. The recommendation of the Committee for providing time bound clearances in a fixed time period was placed before all the States in the Annual Conference organized by MNES with all the States on $7^{th} - 8^{th}$ Mav. 2002. The recommendation was also discussed in detail during the session on 'Power Generation from Renewables'. In regard to acquisition of land, MNES stated that the exact requirement of land for a particular project is normally only known after Detailed Survey & Investigation and finalisation of design of the project including equipment etc. Since allotment of site is normally done prior to Detailed Survey & Investigation, it may not be feasible for the State agencies to pre-acquire the land. It was also felt that private developers are in a better position to negotiate and acquire private land. Involvement of Government agency in acquiring private land may add one more step and may adversely affect time and cost of the project. However, State agencies can facilitate acquisition of Government land once the requirement and quantum of land required is finalized.

17. The Committee note that Government have merely placed their suggestions of single window clearance, time bound approvals and acquisition of land by Government agencies, etc., to an Annual Conference for deliberations. The Committee are of the view that absence of single window clearance, simplification of procedure to acquire land and time bound approvals are the biggest stumbling blocks, hampering the growth of SHP sector. The Committee, therefore, expect that Government should take proactive steps and enthuse the State Agencies and private developers in undertaking SHPs in a big way. The Committee are of the view that MNES, State Agencies and private developers will have to act in unison so as to achieve the desired goal. It is in this context, the Committee reiterate their earlier recommendation of simplification of procedures and transparency in the whole system. The Committee expect that Government will not shy from their responsibilities and heed to the advise of the Committee, in the interest of the development of this programme.

E. Problems Associated with Water Royalty and Third Party Sale

Recommendation (Sl.Nos.12 and 13, Para Nos. 3.37 and 3.38)

18. In connection with the Water Royalty Charges by different State Governments, the Committee had recommended that there should be no royalty on water utilized by the small hydro projects, on a point of third party sale of power generated through small hydro projects. On a point of third party sale of power generated through small hydro projects, the Committee had recommended that third party sale should also be allowed of power generated through small hydro projects.

19. The Government in their Action Taken reply have stated that the guidelines issued by MNES to all the States, recommend exemption of water royalty for SHP projects. The States have been informed about the recommendation of the Committee. The Ministry would also insist on this during their meetings with the State Governments in connection with finalisation of policy for power generation through private sector. Government of Uttaranchal has also decided to waive water royalty charges for the first 15 years of the SHP project. It is further informed to the Committee that the guidelines issued by MNES to all the States recommends third party sale of power from renewable energy based power projects. This was further discussed in the Annual Conference organized by MNES in May, 2002. The States have been informed about the recommendation of the Committee. The Ministry would also insist on this during their meetings with the State Governments in connection with finalisation of policy for power generation through private sector.

20. The Committee find that the question of exemption of royalty by States has also not been resolved by MNES. Similarly, third party sale of renewable not been duly addressed. MNES have merely circulated guidelines to the State Governments to act. The Committee are of the view that prima-facie, there should not be any royalty on use of water, especially when there is no consumptive use of water. However, there could be some reservation from State Governments. Similarly, third party sale also concerns the domain of State Government. Taking into consideration that some of such powers vest with State Governments, the Committee recommend that such matter should be deliberated upon by the National Development Council where all the States / Union Territories participate, so that a uniform policy could be evolved. The Committee would urge MNES to take up the matter with Planning Commission for convening such meeting and they be apprised of the outcome.

F. Need of an Apex Organisation for SHP Recommendation (Sl.No.17, Para No.3.42)

21. As a result of the enhanced mandate from 3 MW to 25 MW and corresponding increase in estimated potential had risen from 10,000 MW to 15,000 MW, the Committee had felt that an apex organization having adequate facilities for testing of equipments, assessment of resources, verifying the veracity of the collected data, providing consultancy services to the developers and an exclusive laboratory dedicated to the research and test facilities related to the small hydro power was required for the optimum development of small hydro sector in the country. The Committee had recommended that an organization like NTPC and NHPC etc. should also be set up for SHPs.

22. The Ministry of Non-conventional Energy Sources in their Action Taken reply have stated that they are strengthening Alternate Hydro Energy Center at IIT, Roorkee to act as an apex technical institution with facilities for testing of equipments, resource assessment, data collection, providing consultancy services to the developers etc.

As part of UNDP-GEF Hilly Hydro Project, on site testing facilities have been recently created at AHEC. AHEC is already providing consultancy services to the State

Governments and private developers for resource assessment, preparation of DPRs, data collection etc. The Ministry is further considering enlarging these activities. Efforts are also being made to involve other technical institutions such as IIT, Delhi, MACT, Bhopal etc. where some facilities already exist to further strengthen them. The Ministry has already involved NHPC and NEEPCO in the development of small hydro power projects. Other CPSUs such as NTPC, THDC and BBMB are also being brought into the SHP sector. This was decided in the joint meeting held between MNES and Ministry of Power on 3rd May, 2002. NEEPCO has already prepared a report on potential SHP projects in the North Eastern States and Sikkim suitable for village electrification through SHP. Further, a meeting was held in Guwahati with all North Eastern States under the chairmanship of Minister of Power to expedite SHP development in the N.E. States with suitable involvement of NEEPCO, NHPC etc.

23. The Committee have taken note of the role played by Alternate Hydro-Energy Center (AHEC) and power of PSUs in the development of SHPs. Similarly, involvement of certain technical institutions such as IIT, MACT, etc., are too little taking into consideration the scope and potential of this sector. The Committee find that MNES has involved NHPC, NEEPCO and other CPSUs such as NTPC, THDC and BBMB are being roped in for the development of this sector. Taking into consideration the involvement of such organisations in execution of mega and large capacity power projects, the Committee apprehend that no meaningful task would be accomplished unless and until there is an apex organisation, totally devoted for SHP sector. Further, there would be administrative problem to take care of O&M of such small hydel stations. Reiterating their earlier recommendation, the Committee urge that an apex level organisation for small hydel sector is a panacea for all the ills confronting this sector. The Committee, therefore, recommend that Government should set up such an organisation without fail in the interest of the sector.

G. Problems Associated with the Evacuation of Power Generated from SHPs

Recommendaton (Sl.No.20, Para No.3.45)

24. The Committee had found that the growth of SHP has been hampered due to lack of facilities for evacuation of power. Inadequate financial resources was the single most reason, for under-development of evacuation facilities. The Committee also noted that lack of evacuation facilities infrastructure work also act as disincentive for an entrepreneur, to undertake the development of Small Hydel Projects. The Committee had, therefore, recommended that State Governments should avail resources at concessional rates from Accelerated Power Development Programme (APDP) which had been promoted specifically for these matters. The Committee had desired that MNES should take up the matter with the concerned States/ SEBs and PFC/ IREDA and assist in formulating bankable proposals. The Committee had also recommended that MNES should consider the cost incurred on infrastructure works as a component of a project's cost and devise a scheme to evacuate power generated from SHPs. The Committee had desired that the Government should encourage the use of power generated through SHPs in the surrounding areas itself thereby minimizing the need for transmission lines.

25. In their Action Taken reply, the Government have stated that lack of evacuation facilities and inadequate financial resources with the State Governments could certainly hamper the growth of small hydro power projects. This aspect was discussed in detail with Ministry of Power. Ministry of Power and MNES have requested the States to avail the resources available under APDP programme. The States have been requested to address this issue. MNES is also exploring the possibility of mobilizing resources through International funding organizations, if possible. The Ministry has started considering cost of evacuating power, in a limited manner, to be taken as a component of project cost for small size SHP projects under the Village Electrification Programme. It has also been decided to include the cost of Transmission & Distribution as project cost for SHP projects for village electrification. Keeping in view the over all budget availability for SHP programme, it may not be possible for MNES at this stage to launch a separate scheme to support evacuation of power from SHP.

26. The Committee share the concern of the Government that lack of evacuation facilities and inadequate financial resources with the State Governments hampers the growth of small hydel project. However, the Committee are sad to note that very little has been done by the Government to address such issues. MNES has failed to enthuse State Governments to tap concessional finances available under Accelerated Power Development and Reform Programme (APDRP). They have also been unable to prevail upon State Governments / PFC / IREDA in formulating bankable proposals. In this context, the Committee would like to be apprised of progress made so far by different States in the matter. The Committee further observe that due cognizance has not been taken for evacuation of power. However, MNES has started considering cost of evacuation of power in a very limited manner by including it as a component of project cost only under village electrification programme. Considering that evacuation of power is a pre-requisite for survival of any SHP, the Committee recommend that cost incurred thereon should form a component of a project cost in all the cases including village electrification.

H. Requirement of Clearances for Small Hydro Power Projects upto 25 MW

Recommendation (Sl. Nos. 21,22 and 23 Para Nos. 3.46, 3.47 and 3.48)

27. The Committee had found that Small Hydel Projects were required to obtain clearances from Environmental and Forest angles. However, projects costing less than Rs. 50 crore were exempted from forest clearance, which approximately covered projects up to 10-12 MW. The Committee had noted that MNES had taken up the matter of exempting Forest clearances for SHP from MoEF, but of no avail. It was also found by the Committee that SHP projects were subjected to clearances from Pollution Control Board also. The argument of MoEF that since HE projects disturb the inter-relationship which existed among water, air and land & human being, they were required to obtain clearances from State Pollution Control Board does not sound convincing. The Committee had, therefore, recommended that Government should not insist for

clearances from Pollution Control Boards. Accordingly, the relevant statute/ law be amended to give effect to their recommendation.

28. The Ministry in their Action Taken reply have stated that the observations of the Hon'ble Standing Committee were forwarded to Ministry of Environment & Forest to reexamine the matter of providing exemption to SHP and other renewable energy base power projects from environment, forest and pollution point of view. As per comments received from Ministry of Environment and Forest (MoEF), the threshold limit of Rs.50 crore for obtaining environmental clearance has already been increased to Rs.100 crore **vide** notification No.S.O.638 (EO) dated 13th June, 2002. As a result, most of the proposals relating to SHPs will get exempted from the purview of the EIA notification 1994. In case of proposals requiring environmental clearance, the public hearing has to be conducted by the respective State Pollution Control Board for which a time limit of 60 days has been prescribed under the notification. MoEF has also stated that the projects costing less than Rs.50 crore are not exempted from forest clearance.

29. The Committee are not convinced with the reply of Ministry of Environment and Forests (MoEF) that with the rise in threshold limit from Rs.50 crore to 100 crore, most of the proposals relating to SHPs will get exempted from the purview of Environment Impact Assessment Notification, 1994. Further, exemption of clearance from environment and forest angles for projects costing less than Rs.50 crore has not been granted. The Committee are of the view that such dilatory tactics should not spoil any development project. The Committee per-se are not against conservation and protection of environment and forest, but at the same time, these should not act as guiding force to block the development projects. The Committee still feel that there is no justification whatsoever, to subject SHPs to clearance from Pollution Control Boards. Further, as there is very little land required for projects costing Rs.50 crore, there is no rationale, in coercing them to obtain forest clearance. The Committee reiterate their earlier recommendation and desire that Government should amend their relevant statute / law to ensure that SHPs do not need clearance from Pollution Boards. Similarly, projects costing less than Rs.50 crore be exempted from the purview of Forest (Conservation) Act, 1980.

I. Granting of 'Industry Status' to all SHP projects

Recommendation (Sl. No. 24, Para No. 3.49)

30. Considering the importance of the sector, the Committee had recommended that 'Industry Status' should be conferred on SHP. Similarly, 'priority sector' lending norms be made applicable to this sector.

31. In their Action Taken reply, the Government have stated that the Ministry of Nonconventional Energy Sources also feels that if the industrial status is granted by the States to the small hydro sector, it would certainly boost development of SHP projects. In fact some States have already done this and the Ministry has specifically requested the

North Eastern States, which are in the process of formulating their policies, to grant "industrial" status to SHP projects. It is further stated that the Ministry has taken up the matter regarding priority sector status to renewable energy based projects with Ministry of Finance and Reserve Bank of India (RBI). RBI has informed that under RBI guidelines, bank advances towards renewable energy based projects are already treated as "priority sector advances". All commercial banks have again been advised to accord priority for assisting the manufacturers and users of equipments based on new and renewable sources of energy. For this, a National level meet was organized by MNES in collaboration with Department of Banking in which all the leading banking and financial institutions of the country were requested to draw up commercial lending plans in the field of renewables into their credit plans. The recommendation of the Committee has also been placed before all the State Governments in the Annual Conference organized by MNES in May, 2002. MNES is continuously following up with the State Governments as part of policy on renewable energy to provide these benefits to renewable energy projects.

32. The Committee find that Ministry of Non-Conventional Energy Sources also feel that industrial status should be conferred on SHP and 'priority sector' lending norms be extended to them but very little has been done by them. The Committee reiterate their earlier recommendation and desire that Government should take result-oriented action in the matter and they be apprised of the outcome.

J. Renovation and Modernisation of SHPs Recommendation (Sl.No.29, Para No.5.10)

33. Expressing concern over lack of R&M of SHPs on account of lack of resources, the Committee had, recommended the Government to open the door for the private sectors participation in the field.

34. In their Action Taken reply, the Government have stated that State Government/ State Electricity Board/ State Hydro Power Corporations are the owners of old SHP projects. They also have necessary technical manpower to undertake R&M works. R&M of old SHP projects could be one of the most economical way of improving capacity and power generation. Keeping this in view, normally SEBs are interested in doing the R&M works themselves. The major difficulty in giving R&M works to the private sector is deciding about the present worth of the project and at what rate the power should be purchased from the private sector if the project is given to them for R&M and further operation. The recommendation of the Committee to involve private sector participation in the field of R&M of old SHP projects has been sent to the States. A few States are considering to lease out the old SHP projects for R&M works.

35. The Committee recognise that State Governments / SEBs / State Hydel Power Corporations are the owners of old projects and they have the necessary technical manpower to undertake R&M works. However, considering that most of the State Governments / SEBs / State Hydel Corporations, are facing severe financial crisis, they are unable to undertake R&M of old plants themselves. The Committee, therefore, reiterate their earlier recommendation and desire that MNES should impress upon States / UTs to undertake R&M of old plants at the earliest. Where the States /UTs are unable to undertake R&M by themselves for whatsoever reasons, such plants can be offered to private sector by any appropriate model (i.e. BOO, BOT, BOLT), the State Government deem fit. However, no project should be allowed to languish for want of adequate resources. The Committee would like to be apprised of the action taken by the Government thereon.

K. Extension of Capital / Interest Subsidy to Uttaranchal and Hills of Southern India

Recommendation (Sl. No. 31, Para No. 6.14)

36. The Committee were not convinced with the reasoning of not extending concessions of capital subsidy/ interest subsidy to SHP located in areas of Uttaranchal and hills of Southern India, on the lines of North-Eastern States. The Committee had, therefore, recommended that Government should review their decision and extend capital subsidy/ interest subsidy to these areas on the lines of North-Eastern States.

37. The Government in their Action Taken reply have stated that the incentive schemes for the development of small hydro was reviewed by MoS (NES) on 30th May, 2002. As suggested by the Committee, it has been decided to examine the question of extending the same level of incentives, as are for North Eastern States, to the SHP projects in Uttaranchal. The hilly regions of Southern India is being provided with the incentives as they are available for other hilly regions of the country. The Ministry is considering revising its incentive schemes accordingly.

38. The Committee find that MNES is actively considering to revise the incentives schemes. The Committee hope and trust that Government will take positive action in the matter.

CHAPTER II

RECOMMENDATIONS / OBSERVATIONS THAT HAVE BEEN ACCEPTED BY THE GOVERNMENT

Recommendation (SL.No. 1, Para No. 2.26)

The Committee find that there exist a potential of 15,000 MW, in small hydel sector. However, the generating capacity of 1320 MW has been exploited. Taking into consideration the vast potential of SHP, sites aggregating to 10,171 MW have been identified by CEA, AHEC and State Governments and rest of the sites are under investigation. In the opinion of the Committee, the process of identification of sites, is rather tardy. The Committee desire that Government should formulate an action plan, so that the remaining sites could be identified expeditiously. The Committee would like to emphasize that Government should chalk-out a time bound programme to harness the estimated potential on priority basis.

Action Taken Reply of the Government

The installed capacity of small hydro power projects up to 25 MW station capacity has now increased to 1438 MW. There was a capacity addition of about 89 MW during 2000-01 and 75 MW during 2001-02.

Ministry of Non-conventional Energy Sources is aiming towards identification of all viable potential small hydro sites by the end of 10^{th} Five Year Plan. One of the objectives of the 10^{th} Plan is to 'strengthen resource assessment programme and create SHP data base on GIS platform, for the country'. In order to achieve this, following steps have been taken :

- (i) All the State Governments have been requested to draw a comprehensive action plan in order to assess the full SHP potential in their States. They have been requested to prepare a comprehensive list of potential SHP sites with a view to harness the potential on priority basis. The Ministry has offered to provide partial financial support for this activity. The Ministry has already received proposals for preparing Master Plans for the States of Chattisgarh and Kerala.
- (ii) As part of the UNDP-GEF Hilly Hydro Project implemented by MNES, Stateof-the-Art techniques have been developed to identify potential sites using topographic maps, satellite images, flow data of major rivers etc. This has already been applied for identification of potential sites in the Himalayan and Sub-Himalayan States (13 States are covered). The State of Himachal Pradesh has further developed this model and a detailed GIS data base has been prepared on all small hydro potential sites. This work has been done at Alternate Hydro Energy Center (AHEC), IIT, Roorkee. AHEC, Roorkee has

been asked to prepare a proposal to further strengthen the data base for the entire country.

(iii) A joint meeting between Ministry of Power and Ministry of Non-conventional Energy Sources was held on 3rd May, 2002 to discuss the strategy and action plan for the development of mini/ micro/ small hydro projects. Hon'ble Union Minister of Power and Minister of State for Non-conventional Energy Sources were present in the meeting. The meeting was also attended by Ministry of Water Resources, CEA, CWC, NHPC, NTPC, NEEPCO, REC. The CPSUs have been asked to extend all possible help to the States for accelerated developed of the SHP potential in the country and to work out feasibility of all the identified SHP projects within a time bound manner.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

(Please see Paragraph 8 of Chapter I of the Report)

Recommendation (Sl.No. 3, Para No. 2.28)

The Committee note that the Ministry have set a target of 800 MW by the end of 10th Five Year Plan i.e. by 2007 A.D. and 2000 MW by the year 2012 A.D. To achieve these targets, the Ministry would require roughly an amount of Rs. 3200 crore by the year 2007 A.D. and Rs. 8,000 crore by the year 2012 A.D. by taking an average requirement of Rs. 4.00 crore per MW. As of now, Rs. 39 crore only has been allocated for the year 2001-2002 against a projected requirement of Rs. 61.00 crore. The Ministry has projected a requirement of Rs. 678.50 for the 10th Five Year Plan period. As, the Government have set a higher goal i.e. 800 MW capacity addition by the year 2007 A.D. and 2000 MW by the year 2012 A.D. The Committee, urge upon the Planning Commission/ Ministry of Finance to provide matching funds to the Ministry to meet the overall target of 2000 MW by the year 2012 A.D. The Ministry should also draft their own plan to achieve its physical and financial targets as fixed in the light of long term target of 2000 MW by the year 2012 A.D.

Action Taken Reply of the Government

The Ministry have set a target of a capacity addition of 800 MW by the end of 10th Five Year Plan and of 2000 MW by the year 2012 from small hydro power projects up to 25 MW station capacity. Taking an average requirement of Rs. 4 crores per MW, the SHP sector would require an investment of about Rs. 3200 crores by the year 2007 and Rs. 8000 crores by the year 2012. As a sizeable part of this capacity addition is expected to come through private sector participation and Ministry's budgetary liability is limited to interest subsidy only for private sector projects and partial financial assistance as capital subsidy for Government sector projects, a budgetary requirement of Rs. 678

crores for the 10th Plan period was projected to Planning Commission. However, against this requirement, a budget provision of Rs. 400 crores (including Rs. 25 crores for village electrification through SHP) has been agreed to. Keeping this in view, the target for 10th Plan has been revised to 600 MW with about 450 MW coming from private sector projects and 150 MW coming from Government sector projects.

The Ministry is thankful to the Committee for recommending to Planning Commission and Ministry of Finance to provide matching funds to meet the over all target of 2000 MW by the year 2012. The Planning Commission has already recognized the necessity of increasing the budget for the small hydro sector. A budget provision of Rs. 54 crores has been made for the small hydro power programme for the year 2002-03 as against a provision of Rs. 39 crores for the year 2001-02. As the Ministry provides only partial financial assistance as capital subsidy to the State Governments for Government sector projects, necessary provisions are also required in the State's budget to set up SHP projects. The Ministry has requested Planning Commission to make such provisions in the State's budgets.

Keeping in view that budgetary resources may be limited, the Ministry proposes to further encourage private sector participation in the small hydro sector. In order to mobilize resources for commercial SHP projects, various steps such as inviting more financial institutions to fund SHP projects, mobilizing International resources from various International funding organizations like World Bank, ADB etc. have been tried with very good success. IREDA has already secured a loan of US \$ 110 million from World Bank as a second line of credit exclusively to support SHP projects. With the involvement of various financial institutions and increasing budgetary support for the small hydro power programme, the Ministry is hopeful of achieving its physical and financial targets.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Action Taken Reply of the Department of Expenditure (Ministry of Finance)

Allocation of Plan funds is made by the Planning Commission, who are to take necessary action on the recommendation.

[Ministry of Finance (Department of Expenditure) OM No. 59(2)/ PF.II/2000 dated 7.3. 2002]

Reply of the Government (Planning Commission)

The views of the MNES were sought on the above observations of the Standing Committee and a reply has been received in this regard. MNES has clarified that inistry's budgetary liability is limited to provide assistance in the form of interest subsidy and partial financial assistance to private sector projects, whereas the actual investment would be made by the private sector to meet the project cost. The Ministry also would provide capital subsidy for State sector project. For 10th Plan the outlay of Rs.450 MW crores, which includes Rs.25 crore for village electrification through Small Hydro Power (SHP), would be utilized to achieve a capacity of 450 MW through private sector projects and the balance 150 MW by the State sector projects. Keeping in view the budgetary constraints, Ministry proposes to encourage private sector participation in order to mobilize resources. International financial institutions like World Bank and ADB have evinced interests in funding SHP projects. the question of providing additional funds will be considered the physical progress achieved by the Ministry for SHP programme subject to availability of resources.

[Planning Commission O.M. NO.P-11072/30/2000-P&E dated : 28th October, 2002]

Recommendation (Sl. No. 5, Para No. 2.30)

The Committee observe that the Ministry is providing incentives for conducting DSI and DPR preparation of individual potential sites. It has not been providing any assistance to States for undertaking comprehensive Survey & Investigation (S&I) and DPR preparations on river basin/ canal system basis. The Committee feel that States should not be barred from getting assistance for undertaking comprehensive Survey & Investigation and Detailed Project Report Preparation for the potential sites. Rather adequate financial support to undertake these promotional incentives schemes should be given to those States which desired to undertake SHP projects up to 25 MW. The Committee recommend that a shelf-of-viable project along with approved DPR should be prepared and offered to the prospective developers at a reasonable price.

Action Taken Reply of the Government

Based on suggestions made by Hon'ble Standing Committee, the matter regarding supporting States for undertaking comprehensive Survey & Investigation was discussed in the Ministry and it has been decided that the Ministry would also support the States for undertaking comprehensive Survey & Investigation to assess SHP potential in the entire State including river basin/ canal system basis, wherever such studies have not been conducted. In this direction, the States have been requested to submit proposals for financial support to the Ministry. The Ministry has already received proposals from the States of Chattisgarh and Kerala. The Detailed Project Report Preparation has to be done individually for each site as each DPR is site specific. The Ministry is already providing financial support to the State Governments as well as private sector projects for preparation of DPRs.

The Ministry has been regularly asking the potential States to prepare a shelf-ofviable DPRs for offering them to the private developers. The recommendation of the Committee was further reiterated in the Annual Conference held with the States on 7^{th} – 8th May, 2002. However, in many cases it is seen that the private developers do not rely only on data provided in the already prepared DPRs. They prefer to re-check the data and prepare their own DPRs.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 6, Para No. 2.31)

In order to cover the SHP projects up to 25 MW, the promotional incentive schemes of Detailed Survey & Investigation (DSI) and Detailed Projected Report (DPR) have been revised in May, 2001. The support for DSI has been increased from up to Rs. 1.5 lakh to Rs. 3.00 lakh and for DPR preparation from up to 1.00 lakh to Rs. 2.00 lakh. Despite these incentives out of the total 225 Nos. supported for DSI and 69 proposals for DPR preparations by the MNES, these incentives only 44 DSIs and 21 DPRs could be completed by the private sector. Thus, the Committee find that the level of private sectors participation in the promotional incentive schemes of DSI and DPR preparations is far from satisfactory. It is a major setback to the SHP programme launched by the MNES which is unable to muster enough support of the private sectors for DSI and DPR schemes. Furthermore, the Ministry have envisaged a target of 600 MW (out of 800 MW) during 10th Five Year Plan from commercial projects through private sector. It is next to impossible to achieve this target without the large scale participation of private sectors. Needless to say that private sectors participation at the installation level can be increased if their participation at the level of Detailed Survey & Investigation (DSI) and Detailed Project Report (DPR) preparation could be encouraged. The Committee, therefore, recommend that the Ministry should have a fresh look at the promotional incentive schemes of DSI and DPR so that the private sector may turn-up in a big way.

Action Taken Reply of the Government

The Ministry has so far supported 255 DSI studies and 106 DPR preparation. Out of these 127 DSI and 84 DPRs have been completed as on 31st March, 2002.

The private sector participation in the DSI and DPR schemes depends on the allotment of sites to the private developers by the State Governments. They only come forward for Detailed Survey & Investigation of the site followed by DPR preparation, once the site is allotted to them. The Ministry's incentives are also given to the private developers only if the site is officially allotted to them by the State Government. The most important thing towards achieving increased private sector participation in the SHP sector is that the States should offer attractive buy-back prices for the purchase of power from commercial SHP projects. The sites should be allotted to the private sector for the development of SHP projects. No private sector is expected to undertake DSI and DPR work if the sites are not allotted to them.

The revised incentives for DSI and DPR are found to be reasonably attractive keeping the work involved for these activities in view. The Ministry has so far not received any suggestion/ request, since they have been revised, to further increase the quantum of incentives. However, keeping in view the suggestion of hon'ble Standing Committee, MOS(NES) has recently reviewed all the schemes under the SHP programme including DSI and DPR schemes. But keeping in view the over all budget for the SHP programme and expanding some other activities for the development of SHP sector, it was felt that the incentives for DSI and DPR may be kept at the same level for the time being.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 7, Para No. 2.32)

The Committee find that there are 1565 MW canal based SHP potential which constitutes more than 10% of the total SHP potential of 15,000 MW in our country. Out of this 1565 MW, SHP projects aggregating to about 375 MW which is about 23% of the total canal based SHP potential have so far been installed. The Committee note that canal based SHPs do not require various statutory clearances as are required in the case of other SHP projects. Furthermore, these also do not require much investment in DSI and DPR preparation. The Committee, therefore desire that the pace of harnessing the assessed canal based SHP potential should be expedited on priority basis. The Committee further note that clusters of small hydro sites can be developed on the perennial canals like Bhatinda and Abhohar and in the catchment areas of perennial rivers like the Ganges the Brahamaputra, the Godavari, etc. The Committee also learn that CEA have listed the potential sites, river basin-wise and canal system-wise. The Committee recommend that such clusters of canal and river basin based SHPs should also be harnessed expeditiously.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources is making all out efforts to harness the potential of SHP projects on canals through private sector participation in respective States. Substantial success has been achieved in the States of Andhra Pradesh, Karnataka and Punjab. In last 5 years or so, projects aggregating 120 MW have been set up on canals in these States. MNES is encouraging private sector to come forward to set up SHP projects. The State Governments have been asked and are also allotting canal based projects in clusters to the private developers. This is also helping in developing economically viable projects on canals as well as a river basins. The ranking study published by CEA has further given a direction to tap the potential of hydro projects in clusters and river basin wise. The Ministry had a joint meeting with Ministry of Power on 3rd May, 2002 to further develop this concept and also to involve CPSUs in the development of small hydro in clusters.

Recommendation (Sl. No. 11, Para No. 3.36)

The Committee are happy to find that some States namely Andhra Pradesh, Karnataka and Himachal Pradesh have permitted the private developers to mortgage the Government land leased to them for the project for raising finance from various financial institutions. The Committee would like MNES to take proactive role in the matter so that other States/ Union Territories also allow this facility to IPPs.

Action Taken Reply of the Government

This aspect of permitting the private developers to mortgage the Government land leased to them for the project for raising finance from various financial institutions has been by and large agreed by the States. It is expected that the States/ UTs, where policy would be announced in future would also follow the same system. MNES would also monitor this aspect.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 14, Para No. 3.39)

The Committee note that the time period required for execution of a small hydro project varies from 2 years for the canal based SHPs to 3 to 4 years on the other sites having only 5-6 months working period. The Committee are also aware of the difficulties faced by various developers in various regions of the country. The Committee expect a time bound clearances/ completion of the small hydro projects by the concerned Government authorities/ developers respectively. The Committee feel that different clearances to the developers should be given in a time bound manner. And the developer should also complete his project in a fixed period which can perhaps be taken from the first pour of concrete.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources is also very keen that small hydro power projects set up by the State Governments and also by the private developers should be completed in a time bound manner. All the SHP projects, where MNES provides its capital subsidy to the State Governments gives specific time, in its sanction, for completion of the project. Regular monitoring is also done to ensure time bound completion. The State Governments also gives specific time frame to the private developers for completion of the project. Keeping in view the recommendations of the Committee, the Ministry has again requested the States to provide different clearances to the developers in a time bound manner. This position is now improving as with the experience of setting up of SHP projects, the procedures are becoming clear and developers are also given clear directions regarding various clearances. The State agencies are now in a better position to guide and facilitate clearances and other requirements. Now there are many projects which are being set up in record time of 15 to 16 months. Officers of the Ministry/ State Governments/ FIs are also regularly monitoring progress of each project through site visits to ensure timely completion of various SHP projects.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 18, Para No. 3.43)

The Committee observe that Energy Management Center has done a commendable work for the promotion and development of SHP in the State of Kerala. The Committee are happy to learn that the Ministry have also been promoting similar agencies in other States also. The Committee would like to know what financial and other incentives have been offered or are proposed by the Government to these agencies.

Action Taken Reply of the Government

MNES is encouraging various organizations such as Energy Management Center, AHEC, Roorkee, MACT, Bhopal, Jadavpur University, Calcutta, IIT, Delhi, IIT, Guwahati to play a more active role in the development of small hydro sector. They have been encouraged to organize technical workshops to provide training at various levels in the small hydro sector. The Ministry has also launched a scheme for providing fellowships at these institutions to encourage young engineers to do M. Tech./ Ph. D. in the renewable energy/ small hydro subjects. The Ministry also has a scheme to support R&D projects with focus on industrial based R&D through interaction between technical institutions and industry.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 19, Para No. 3.44)

The Committee are happy to learn that Ministry of Non-conventional Energy Sources (MNES) have been encouraging the State Agencies to involve local people in the process of operation and maintenance of the completed SHP projects. This has been done in the State of Uttar Pradesh only. The Committee suggest that as far as possible local people should be involved from the beginning of the project. They should be adequately trained for operation and maintenance of the project. The Committee feel that other States should also be encouraged to follow the example of Uttar Pradesh.

Action Taken Reply of the Government

The Ministry of Non-conventional Energy Sources is making all out efforts to involve local people and communities, from the very beginning, in the development of small size SHP projects. Specific efforts in this direction have been made under the UNDP-GEF Hilly Hydro Project implemented by MNES. Recently, a project namely Titang (800 KW) has been set up in Himachal Pradesh by Sai Engineering Foundation, NGO. This project is providing power to about 27 villages in Pooh area of Kinnaur District. The project has been set up with the full involvement of local people and is the first project set up by an NGO in the country. A NGO organisation namely Tide Technocrats in Karnataka have set up 5 SHP projects of 2.5 KW to 8 KW in unelectrified villages of Karnataka and all the projects are being fully managed by local West Bengal Renewable Energy Development Agency has recently people. commissioned a SHP project of 20 KW in Daragaon village. This project is also being managed by the local community. MNES is requesting all the State agencies to involve local community/ people in all small size SHP projects envisaged under village electrification scheme of MNES.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 25, Para No. 4.16)

The Committee note that even after issuing guidelines to the States in 1993 for announcement of suitable policy for private sector's participation in the field of small hydel sector, only 13 States have so far declared their policies, offering capacity aggregating to 1906.68 MW, to the private developers. The Committee further note with concern that out of this capacity of 1906.68 MW, only 47.95 MW could be commissioned in the States of Andhra Pradesh and Karnataka. The remaining 11 States viz. Uttar Pradesh, Madhya Pradesh, Punjab, Himachal Pradesh, West Bengal, Kerala, Tamil Nadu, Haryana, Orissa, Maharashtra, and Rajasthan have not yet commissioned any SHP project in the private sector. In this context, the Committee would like to know the measures that are being taken by Ministry of Non-conventional Energy Sources (MNES) to encourage private sectors participation in these States. The Committee also find that though the North-Eastern States have the total capacity of 1845.72 MW, none of the States in NE have declared their policies as yet in this regard. The Committee, therefore, recommend that the Government should adopt two-pronged strategy. On one hand, all the States/ UTs having small hydro potential should be encouraged to declare their policies in accordance with the guidelines laid down by MNES. On the other hand, they should take effective measures to ensure that all the SHP projects offered to the private developers in 13 States, which have declared their policies for private sector's participation in the field of small hydel sector' are taken up for implementation at the earliest.

Action Taken Reply of the Government

The State Governments, where the policy for private sector participation to set up SHP projects has been announced have now offered sites aggregating over 2000 MW and projects aggregating about 120 MW have been already commissioned. While major success has so far been achieved in the States of Andhra Pradesh and Karnataka, projects in other States are also now picking up. Many private sector projects in the States of Punjab, Himachal Pradesh and West Bengal are in advanced stages of implementation. The State of Uttaranchal has also cleared 7 projects and PPAs have been signed between the developers and Uttaranchal Power Corporation Ltd. The State of Uttaranchal has also declared their policy for private sector participation in the SHP sector.

Ministry of Non-conventional Energy Sources is continuously interacting with all the States with a view to convince them to announce their policy. Secretary, MNES had a detailed meeting with all the North Eastern States in Shillong on 11th January, 2002. The main agenda of the meeting was to facilitate formulation of policy in the N.E. States. Copies of policies of other States and the guidelines of MNES were discussed with the States. The States were also given a time frame to announce their policies and MNES has also offered to help them in formulation of policy. MNES is happy to report that most of the N.E. States have started the work of formulating their policies and the matter is under process. It is expected that the North Eastern States would announce their policies shortly.

The progress of implementing SHP projects by the State Governments and through private sector participation are regularly monitored by MNES through one – to - one meetings between the State agencies and MNES. This was also discussed in detail in the Annual Conference organized by MNES in May, 2002. Implementation of projects through private sector is now picking up in almost all the States where policies have been announced.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 26, Para No. 4.17)

The Committee would like to emphasise that remaining State Governments should be pursued to declare their long term policy statements for private sector participation in SHP. The Committee also desire that in the interest of the development of SHP sector and for the benefit of the State mid-way policy changes should not be permitted. The Committee hope and trust that MNES would take measures to ensure that mid-term policy changes are not resorted to by the states/ UTs.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources is regularly interacting with all the States and pursuing them to announce their policies for private sector participation to develop renewable energy based power projects. This was also one of the main points for discussion during the Annual Conference organized by MNES on $3^{rd} - 4^{th}$ May, 2002. A recommendation to all the States to announce policies has again been given. The Ministry is also interacting with the Central Regulatory Commission and State Regulatory Commissions to ensure that suitable provisions are made for purchase of power generated from renewable energy based power projects. The issue of power gurchase policy from renewables and long term policy in this regard was also discussed in the joint meeting held between Ministry of Power and MNES in May, 2002. Ministry of Power has also been requested to issue necessary instructions in this regard.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 27, Para No. 5.8)

The Committee would like to emphasize that concessional financial assistance is available under Accelerated Power Development Programme (APDP) for undertaking R&M activities. The Committee desire that MNES should take up the matter of financing R&M of SHPs through this scheme with Ministry of Power/ PFC. Accordingly, State Governments/ SEBs be persuaded to formulate bankable specific proposals. To further encourage R&M works matching funds can be made available by MNES for the projects.

Action Taken Reply of the Government

Ministry of Power has agreed to consider proposals for R&M of small hydro power projects under the APDP programme. State Governments have also been requested to formulate suitable proposals to take advantage of funds available under the APDP programme. MNES has offered its services in piloting these proposals with Ministry of Power/PFC. This issue was also discussed and agreed to in the joint meeting of Ministry of Power and MNES on 3rd May, 2002 in which Minister of Power and MOS(NES) were present.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 28, Para No. 5.9)

The Committee note that there is no system of reviewing the performance of SHPs to assess their needs for R&M works. There are no set guidelines for undertaking such a review. The Committee recommend that a comprehensive Survey should be carried to identify the old SHP projects which have outlived their designed life and require R&M. The Committee find that MNES is providing capital grant of upto Rs. 2 crore per MW for R&M activities of old SHPs to State Governments/ SEBs. The grant is up to a maximum of 75% R&M cost or upto Rs, 10 crore per project whichever is less. Moreover, the grant is available for projects up to 15 MW. The Committee are of the view that funding mechanism should be reviewed to see whether the capital grants available under R&M schemes can be raised upwardly. The committee also recommend that such grants should also be extended to the projects of capacity between 15-25 MW.

Action Taken Reply of the Government

All the States have been requested to undertake a comprehensive survey of all old SHP projects with a view to renovate and modernize them. MNES is receiving proposals from various States and they are being provided with financial support from MNES. So far, 12 proposals aggregating 34 MW have been supported in Himachal Pradesh, West Bengal, Sikkim, J&K, Nagaland and Assam. The Ministry has recently received more proposals from Uttaranchal, Bihar, Arunachal Pradesh, Tripura, J&K and Mizoram.

Based on recommendations of the Standing Committee, the R&M scheme of SHP programme was reviewed by MOS(NES). It has been decided by MOS(NES) that the R&M scheme should be extended to cover projects of capacity between 15-25 MW also. The R&M scheme for the year 2002-03 is being taken up for modification accordingly.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 29, Para No. 5.10)

The Committee have noted that small hydel sector is not open for that private sector's participation in the field of Renovation and Modernisation (R&M) of old SHPs. Before November, 1999 the old small hydel projects between 3-25 MW which were under the jurisdiction of Ministry of Power were open for R&M through private developers but now they have been barred. In the changed scenario, when the Government have been depending heavily on the private sector for the installation of new small hydel projects, it seems quite illogical to prohibit them to enter into the field of R&M of old small hydel plant up to 25 MW. The Committee, therefore, recommend the Government to open the door for the private sectors participation in the field of Renovation and Modernisation (R&M) of old SHP plants.

Action Taken Reply of the Government

State Government/ State Electricity Board/ State Hydro Power Corporations are the owners of old SHP projects. They also have necessary technical manpower to undertake R&M works. R&M of old SHP projects could be one of the most economical way of improving capacity and power generation. Keeping this in view, normally SEBs are interested in doing the R&M works themselves. The major difficulty in giving R&M works to the private sector is deciding about the present worth of the project and at what rate the power should be purchased from the private sector if the project is given to them for R&M and further operation.

The recommendation of the Committee to involve private sector participation in the field of R&M of old SHP projects has been sent to the States. A few States are considering to lease out the old SHP projects for R&M works.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph of Chapter I of the Report)

Recommendation (Sl. No. 30, Para No. 6.13)

The Committee note that IREDA provides certain exemptions from the payment of registration fee, inspection charges, front-end fee @ 1% of loan amount etc., and 5% p.a. concession in Promoters contribution to the entrepreneurs setting up SHP projects in North-Eastern States. Despite these incentives, it has not been able to develop SHP projects in the North-Eastern sector. The Committee feel that the major constraints faced in this regard are absence of nodal agencies, policy for private sectors participation policy framework for Grid connected projects etc. The Committee recommend that the Government should remove the above-mentioned constraints so that the abandoned SHP potential available in the North-Eastern States could be harnessed for the benefit of the people of the States.

Action Taken Reply of the Government

MNES is making special efforts to develop SHP projects in the North East. Special teams have been sent to the N.E. States to help them in preparing proposals. Secretary, MNES took a meeting with all the N.E. States in Shillong on 11th January, 2002 and they have been asked to prepare a policy for private sector participation. It is expected that some of the N.E. States would come out shortly with their private sector policy. Nodal agencies have been created in all the North Eastern States. MNES has provided special grant for setting up of State Nodal Agencies in the N.E. States. NEEPCO and NHPC have been requested to especially focus on the development of SHP in the N.E. Region. NEEPCO has prepared a detailed report identifying remote and isolated villages which can be electrified through SHP projects for the benefit of the people living in remote and isolated areas of North Eastern region.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 32, Para No. 6.15)

The Committee find that inspite of Government special dispensation for North-Eastern States, the performance under SHP sector is not encouraging. For instance a liberal capital subsidy for State sector projects and interest subsidy for commercial projects and 10% budget of MNES for North-Eastern Region by MNES and concessional loan by IREDA, have failed to enthuse the State sector and private entrepreneur to take up the development of SHP. It is further shocking to note that none of the State of North-Eastern Region, has announced policy for private sector participation. The Committee, have noted that the North-Eastern States are admissible to receive 90% grants and 10% loan components for development of SHP through 90% grant component. 10% of loan component by provided by MNES, so as to accelerate the promotion of SHPs in North-Eastern States on a large scale. At the same time, the Committee desire that State sector hydel PSUs/ Corporations and Central sector hydel PSUs such as NEEPCO,

NHPC be urged to take up cluster of SHPs on a large scale. In order to enthuse hydel PSUs/ Corporations to undertake development of SHPs, some incentives/ concessions should be extended to them.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources is vigorously following up with all the North Eastern States to announce their policy for private sector participation. Most of the N.E. States have started the process of formulating the policy and it is expected that some States may come up shortly with the policy. MNES is already providing capital subsidy to cover 90% of the project cost for SHP projects up to 1 MW station capacity. As part of village electrification programme, MNES also proposes to cover T&D component associated with SHP projects. A support of about Rs. 22 crores during 2001-02 was provided under the SHP programme to the North Eastern States.

As mentioned earlier, Ministry of Power has directed Central PSUs including NHPC and NEEPCO to undertake SHP projects in the North Eastern States on a large scale. MNES has already decided to provide capital subsidy to the SHP projects set up even by CPSUs also at the level of the capital subsidy provided to the respective States. Minister of Power had a meeting with Chief Ministers of all the North Eastern States in Guwahati on 3rd June, 2002 to discuss and implement the report prepared by NEEPCO for the development of small hydro projects.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 33, Para No. 7.12)

IREDA is the primary lending institution in India financing small hydel sector on commercial term basis. Its interest rate varies from 13.50% to 14% for repayment period of 10 years with moratorium of 3 years depending upon the technical status and the client status (manufacturers, users women, SC & ST and NGOs, etc.). it has infused a large amount of capital into the private sectors through various incentive schemes. It has also successfully mobilized international sources for the small hydel sector. However, the Committee has observed that the cumbersome procedure in availing financial assistance from IREDA dissuade many potential borrowers. The Committee find that IREDA has modified their loan portfolio. Now in SHP sector up to 1 MW capacity, the ceiling of IREDA's loan component has reduced from 80% in the year 2000-2001 to 75% in 2001-2002. Similarly for SHP projects for capacity more than 1 MW, this ceiling has reduced from 75% in 2000-2001 to 70% in 2001-02. It results in increase in minimum promoters contribution from 20% to 25% for the projects upto 1 MW, and for the projects more than 1 MW. It has increased from 25% to 30%. The Committee welcome this action of IREDA in restructuring their loan portfolio. However, the Committee are unhappy to find cumbersome procedure to availing loan. The Committee, therefore, recommend that Government should review the lending policy of IREDA laying stress on simplification of lending procedures so that the small hydel potential is harnessed in the country and the burgeoning gap between the demand and supply of power is bridged. The Committee would like to emphasize that IREDA should appraise the projects and all the objections/ equerries, should be resolved in one go and not piece-meal. IREDA should consider the option of 'on-line sanction' of the project, so that the disbursement of loan could be expedited.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources regularly reviews the lending policy of IREDA and the procedures for its lending operations. Various steps have been taken to streamline the procedures and simplify them. Among the major steps taken in this direction include circulation of financial guidelines, legal requirements at a glance, simplified loan application etc. The loan application received in IREDA is registered after examination of all necessary documents. A registration number is given to each application. The developer is told about the balance requirements if any for taking up a detailed appraisal. Now, IREDA takes about 90 days for appraisal. IREDA board meeting is conducted every month to consider the loan applications. The guidelines issued by IREDA are comprehensive and the documentary requirements are made clear to avoid delay in appraisal and sanction of loan. IREDA is working towards further simplification and computerization in order to simplify the procedures and expedite sanction/ disbursement of loans.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 34, Para No. 7.13)

The Committee find that IREDA is almost the only institution so far as funding of SHPs is concerned. The other Financial Institutions, such as PFC, REC, IDBI, ICICI, IFCI and Commercial Banks play very little role in this field. The Committee desired that the Government should evaluate the performance of such FIs and shortcomings, if any, be bridged so that these FIs, also support SHPs on a large scale, as is being done by IREDA. MNES should also consider that reimbursement of subsidy/ incentives through these FIs. At the same time, the Committee would urge IREDA to find tune their credit policy, so that the benefit of drop in interest rate regime, is passed on to the consumers. The Committee would also like to recommend that Commercial Banks should devise their credit plans, taking into consideration the funding requirement of Small Hydel Sector.

Action Taken Reply of the Government

The participation of various financial institutions and commercial banks is continuously increasing in the small hydro sector. ICICI, IDBI, Andhra Bank, Karnataka State Financial Corporation, Bank of Maharashtra have recently funded small hydro projects. MNES is also interacting with various other banks to involve them in the funding of SHP sector. The interest subsidy scheme of MNES provides for giving interest subsidy through these financial institutions and the incentives of interest subsidy can be passed on through these financial institutions. MNES also reviews the credit policy of IREDA and the interest rates for a particular year is fixed keeping in view the over all cost of fund to IREDA. With the continuous interaction with FIs and Commercial Banks and also with RBI, Banking Division of Ministry of Finance, MNES is quite hopeful that more and more FIs and Commercial Banks would find the SHP sector attractive enough for funding.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 36, Para No. 8.11)

The Committee note the impressive progress of small hydro sector in China. China has contributed more than 20,000 MW of power through small hydro sector, which is about one-fourth (1/4) of the total hydro electric capacity in china. However, in our country it is a low-priority sector and merely an 11 years old programme started in 1989. The Committee feel that like China a mass-movement for the promotion and development of small hydel sector is required in our own country also. For this certain specific problems relating to high investment cost, lack of demand for electricity of generation sites, the long time taken in obtaining the necessary approval in the small hydel sector and in acquisition of land particularly the Government land shall be redressed to. In this light, the Committee recommend that Government should streamline their procedures for providing necessary approvals to the small hydro project within specific time period as mentioned in MoU and mutually agreed between the Government agencies and the private developers. The Government should also evolve a remunerative policy for greater participation of private sectors, local people and Non-Government Organisations (NGOs).

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources wants to assure Hon'ble Standing Committee on Energy that all out efforts would be made to develop the small hydro sector in the country. The Ministry would continue reviewing its policies and incentives to encourage both private sector as well as Government agencies to set up SHP projects. The Ministry proposes to involve local communities/ bodies and NGOs in setting up of small size SHP projects for remote and isolated village electrification. It has been realized that SHP could be the most economic way of providing grid electricity to the remote and isolated areas. It is proposed to work in close coordination with Ministry of Power and other Central PSUs to expedite growth of the SHP sector. The Ministry is thankful to the Hon'ble Standing Committee for their valuable suggestions and recommendations to further strengthened the SHP sector. The Ministry would continue to evolve its policy for greater participation of private sector, local bodies and NGOs.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

CHAPTER III

RECOMMENDATIONS / OBSERVATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLY

Recommendation (SL. No.4, Para No. 2.29)

Detailed Survey & Investigation and Detailed Project Report Preparations are the sine-qua-non for the development and promotion of small hydel sector in the country. Any inadequacies at this stage result in cost escalations on account of poor quality of collected data and delays in constructing civil works in difficult geographical terrain. These resulted in certain misgivings and misapprehensions in the mind of potential small hydro power developers. There is thus an urgent need to give due attention on Survey & Investigation and take adequate care while preparing the DPR for the small hydro projects. The Committee desire that high priority should be given to expedite the Survey & Investigation process along with DPRs preparations with the latest State-of-the-art technologies. The Committee feel that once DPR of a project has been prepared and approved by the appropriate authority, there may not be any need to have any statutory/ non-statutory clearances for the project furthermore.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources fully agreed with the observation of hon'ble Standing Committee that Detailed Survey & Investigation (DSI) and Detailed Project Report (DPR) preparation are very important activities for successful development and implementation of small hydro power projects. Any inadequacy on account of poor quality of data collection about availability of water and geological features of site may have serious implications on the techno-economic viability of the projects. Keeping this in view, the Ministry insists that at least two lean season discharge data should be collected for each site before actual implementation of the project. Similarly, the developers are also required to investigate the site in detail to ascertain geological parameters. In order to ensure this, the Ministry gives its incentives only to those DSI studies where at least two lean season discharge data has been actually The DPR incentives are also given to only those DPRs which have all collected. necessary details for setting up the project. The developers of SHP projects are told about the importance of proper survey and studies which are required to be undertaken before starting the project.

With the recent developments in the SHP sector, consultants are also now equipped with latest techniques and developments in the SHP sector to prepare DPRs as per International standards. In addition to this, Alternate Hydro Energy Center (AHEC), Roorkee is now fully equipped with State-of-the-art techniques for Detailed Survey & Investigation for SHP sites. Various consultants are regularly utilizing their services for DSI and DPR work.

The suggestion of hon'ble Committee that once DPR of a project has been approved, there may not be any need to have any statutory/ non statutory clearances for the project was put forward to the States in the Annual Conference organized by MNES on $7^{th} - 8^{th}$ May, 2002. As the Committee is aware, many State Government Departments are involved in giving statutory clearances for SHP projects. MNES has been suggesting to all the States to follow "single window clearance" approach, which will also in a way help in giving all clearances together. However, this has been achieved only in a limited manner. The Ministry would continue its efforts to get the procedure streamlined in the States for speedy clearances for SHP projects as this is crucial to attracting private investment to the sector.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

CHAPTER IV

RECOMMENDATIONS / OBSERVATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendation (SL. No. 2, Para No. 2.27)

The Committee observe that there is a need to assess the potential in the relatively untouched and untapped areas like tea-estates of the North-Eastern and Southern Region States, Tail-end flow of water of mega/ major thermal/ hydro projects, dam-toe sites of the major/ small dams existed in the country and perennially running water through the snow-fed sources in the areas like Himachal Pradesh, Ladakh, Leh, etc. The Committee feel that the tea estates offer good scope for development of SHPs. The Committee recommend that tea estates be taken as a separate sector for the development and promotion of small hydro power. The Committee suggest that the Ministry of Nonconventional Energy Sources should come up with attractive policies and programmes to make the investment in SHPs in the tea-estates sector more remunerative. In addition to this sector, the MNES should also make specific efforts to assess the small hydel potential in the other areas also as mentioned above.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources is giving special emphasis to tap the potential for the development of small hydro power projects in tea gardens, remote and isolated areas, Himalayan region including Himachal Pradesh, Ladakh, Leh etc. A number of potential sites including those in the tea estates of Assam and West Bengal have been identified as part of UNDP-GEF Hilly Hydro Project and also a dedicated study conducted for the tea gardens in Darjeeling area. Out of the 20 demonstration projects being set up as part of UNDP-GEF Hilly Hydro Project, 3 projects are being set up in tea gardens (1 in Assam and 2 in Darjeeling area). These projects are in their final stages of completion and will be made operational in next 2-3 months. These projects would serve as model projects for the tea garden industry.

Secretary, MNES took a meeting with all the North Eastern States in Shillong on 11th January, 2002. A strategy for the development of small hydro was discussed in detail. The State of Assam has been requested to conduct a meeting with tea garden owners to sensitize them about the advantages of SHP projects in tea gardens. A separate meeting with the tea garden owners and visit to tea garden sites was organized in Silchar to emphasize the usefulness and advantages of small hydro projects in tea gardens.

The Ministry is giving a higher level of capital subsidy for the North Eastern and middle Himalayas, Ladakh area. For Government sector projects, support to cover project costs up to 90% of the project cost is available for projects up to 1 MW station capacity.

Keeping in view the average size of tea gardens, availability of water resources etc. it is expected that the potential to set up SHP project in an individual tea garden may be less than 1 MW per project. For this range of commercial projects, the Ministry is providing highest level of interest subsidy of 7.5%. IREDA is also giving soft loan with special rebate for North Eastern States and projects in hilly areas. The Ministry is also giving financial support for undertaking detailed survey and investigation and detailed project report preparation. These incentives will make the investments in the SHP by the tea estates quite remunerative.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 11 of Chapter I of the Report).

Recommendation (Sl. No. 8, Para No. 2.33)

The Committee note that the cost of the equipments used in SHP projects in the plain areas where the slope is very low, is higher. Due to ultra low heads, it requires larger size of the turbines which, in turn, expands the size of the power house. The cost of the project is thus further got escalated. The result is that the IPPs are withdrawing their support from these projects. For instance, 22 out of 50 canal based projects have been cancelled only in a single State of Punjab. The condition further worsen due to non-availability of capital subsidy in the plain areas like Punjab, Haryana, etc. The Committee further note that capital subsidies is being provided in the North-Eastern Region including Sikkim and in the hilly areas on the ground of higher installation cost of the project due to difficult geographical terrain. The reasons may be different but the point is that the installations cost of canal based SHP projects in the plain areas is also higher. The Committee, therefore, recommend the extension of capital subsidy to the canal based SHP projects in the plain areas also.

Action Taken Reply of the Government

It may not be correct to say that IPPs are with drawing from setting up of SHP projects on canals due to high cost of the projects. It is true that 22 projects out of 50 project allotted by Punjab Energy Development Agency in the first phase were cancelled. Almost all the projects on the canals of Punjab are with low head of about 2-3 meters. These projects are quite viable taking into consideration the availability of water and the quantum of electricity they are expected to generate. The developers were given specific dates to undertake survey and complete DPR work. Since they could not complete this activity in the stipulated time frame, the projects were cancelled.

As a policy, the Ministry of Non-conventional Energy Sources is aiming towards increasing private sector participation in SHP development. Also, the Ministry is not providing any capital subsidy to the private sector projects and only interest subsidy is being provided. More and more private sector participation is being envisaged for canal based SHP projects. The canal based projects are low gestation projects and are expected to be economically viable on their own. The average cost of canal based SHP projects are in the range of Rs. 3-3.50 crores per MW as against an average cost of Rs. 6-7.0 crores per MW in remote areas of North East. Taking all of this into consideration, it is felt that there may not be any need to extend the capital subsidy to the canal based SHP projects to the plains areas. This was discussed and decided in a meeting taken by MOS(NES) on 30th May, 2002.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 14 of Chapter I of the Report)

Recommendation (Sl. No. 9, Para No. 3.34)

The Committee note some efforts have also been made by States of Karnataka and Andhra Pradesh in pursing the concept of 'Single Window Clearance'. It has been informed to the Committee that the State of Himachal Pradesh has recently adopted a simplified system for allotment of sites, implementation agreement and PPA. However, in most of the States, no much headway has been made in accepting 'Single Window' mechanism, due to variety of reasons. The Committee desire that a High Powered Committee be constituted involving all the departments/ agencies for expediting the clearances, in a fixed time bound manner. In the event of expiry of such a fixed period, the clearances should be deemed to have been accorded. The Committee also recommend that the relevance of various clearances should be reviewed and the list of clearances should be minimized so that the involvement of various agencies can be minimized.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources has always been insisting and recommending to all the States for following the concept of 'Single Window Clearance'. This concept has been followed by most of the States in a limited manner. In fact allotment of sites is done in all the States through a 'High Powered Committee'. The State Nodal Agency responsible for development of renewable energy/ small hydro coordinate all the clearances required for setting up of power projects using renewable energy sources including small hydro. The States have High Power Committees with representations from various departments/ agencies of the State Government for allotment of sites and also clearing the proposals based on various statutory clearances.

The recommendation of the Committee for providing time bound clearances in a fixed time period was placed before all the States in the Annual Conference organized by MNES with all the States on $7^{\text{th}} - 8^{\text{th}}$ May, 2002. The recommendation was also discussed in detail during the session on 'Power Generation from Renewables'. The recommendation of introducing Single Window Clearance including statutory clearances, pollution, forestry has been sent to all the States. The Ministry would continue follow up and monitor the subject with the States.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 17 of Chapter I of the Report)

Recommendation (Sl. No. 10, Para No. 3.35)

The Committee note that the present procedure for acquisition of land is time consuming and quite cumbersome. It is beyond the means of the private developers to get the land which belong to either the State Government or to a private person. The Government support is, therefore, essential to expedite the process of acquiring land belonging either to the State Government or a private person for the promotion and development or small hydel sector. In this connection, the Committee desire that the concerned State Agency responsible for the development of SHP should acquire the land first by itself, and then allot the site to the IPPs. In extreme cases when the project is delayed inordinately, the section 17 of the Land Acquisition Act, 1984 may be invoked which confers special powers of acquiring land in case of urgency on the direction of Government.

Action Taken Reply of the Government

The suggestion of the Committee that the concerned State agency responsible for development of SHP should acquire the land first by itself, and then allot the site to the IPPs was discussed with individual States actively implementing the SHP programme through private sector and also in the Annual Conference organized by MNES on $7^{\text{th}} - 8^{\text{th}}$ May, 2002. It is felt that the exact requirement of land for a particular project is normally only known after Detailed Survey & Investigation and finalisation of design of the project including equipment etc. Since allotment of site is normally done prior to Detailed Survey & Investigation, it may not be feasible for the State agencies to pre-acquire the land. It was also felt that private developers are in a better position to negotiate and acquire private land. Involvement of Government agency in acquiring private land may adversely affect time and cost of the project. However, State agencies can facilitate acquisition of Government land once the requirement and quantum of land required is finalized.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 17 of Chapter I of the Report)

Recommendation (Sl. No. 12, Para No. 3.37)

The Committee find that water Royalty is being levied in some of the States, even though there is no consumptive use of water. The Committee further note that it has been exempted in the States of Karnataka, Himachal Pradesh, Madhya Pradesh, Punjab, Tamil Nadu, Orissa and West Bengal. In the opinion of the Committee, a uniform policy should be implemented as far as Water Royalty is concerned. Accordingly, the Committee recommend that there should be no royalty on water utilized by the small hydro projects.

Action Taken Reply of the Government

The guidelines issues by MNES to all the States recommends exemption of water royalty for SHP projects. The States have been informed about the recommendation of the Committee. The Ministry would also insist on this during their meetings with the State Governments in connection with finalisation of policy for power generation through private sector. Government of Uttaranchal has also decided to waive water royalty charges for the first 15 years of the SHP project.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (Sl. No. 13, Para No. 3.38)

The Committee observe that the States having a good power purchase policy attract a lot of private investors in the small hydel sector. But so far only 13 States have declared their policy for private sectors participation in this field. Out of 13 only 4 States viz. West Bengal, Tamil Nadu, Kerala and Himachal Pradesh, where the participation of the private sectors is satisfactory have allowed the sale to power to the third party. The Committee, therefore, recommend that third party sale should also be allowed of power generated through small hydro projects.

Action Taken Reply of the Government

The guidelines issues by MNES to all the States recommends third party sale of power from renewable energy based power projects. This was further discussed in the Annual Conference organized by MNES in May, 2002. The States have been informed about the recommendation of the Committee. The Ministry would also insist on this during their meetings with the State Governments in connection with finalisation of policy for power generation through private sector.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 20 of Chapter I of the Report)

Recommendation (Sl. No. 17, Para No. 3.42)

The Committee note that with the transfer of hydel projects between 3-25 MW capacity from the Ministry of Power to the Ministry of Non-conventional Energy Sources (MNES), the estimated potential has risen from 10,000 MW to 15,000 MW. Similarly, the total installed capacity has grown from 63 MW in 1989, when the projects up to 3 MW was transferred from the Ministry of Power to MNES, to 1320 MW in 2000. Considering the enhanced mandate, the Committee feel that an apex organization having adequate facilities for testing of equipments, assessment of resources, verifying the veracity of the collected data, providing consultancy services to the developers and an exclusive laboratory dedicated to the research and test facilities related to the small hydro power is required for the optimum development of small hydel sector in the country. The Committee recommend that an organization like NTPC and NHPC etc. should also be set up for SHPs.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources is strengthening Alternate Hydro Energy Center at IIT, Roorkee to act as an apex technical institution with facilities for testing of equipments, resource assessment, data collection, providing consultancy services to the developers etc. As part of UNDP-GEF Hilly Hydro Project, on site testing facilities have been recently created at AHEC. AHEC is already providing consultancy services to the State Governments and private developers for resource assessment, preparation of DPRs, data collection etc. The Ministry is further considering enlarging these activities. Efforts are also being made to involve other technical institutions such as IIT, Delhi, MACT, Bhopal etc. where some facilities already exist to further strengthen them.

The Ministry has already involved NHPC and NEEPCO in the development of small hydro power projects. Other CPSUs such as NTPC, THDC and BBMB are also being brought into the SHP sector. This was decided in the joint meeting held between MNES and Ministry of Power on 3rd May, 2002. NEEPCO has already prepared a report on potential SHP projects in the North Eastern States and Sikkim suitable for village electrification through SHP. Further, a meeting was held in Guwahati with all North Eastern States under the chairmanship of Minister of Power to expedite SHP development in the N.E. States with suitable involvement of NEEPCO, NHPC etc.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 23 of Chapter I of the Report)

Recommendation (Sl. No. 20, Para No. 3.45)

The Committee find that the growth of SHP has been hampered due to lack of facilities for evacuation of power. Inadequate financial resources are the single most reason, for under-development of evacuation facilities. The Committee further note that besides Transmission Line other infrastructure work may act as disincentive for an entrepreneur, to undertake this development of Small Hydel Project. The Committee, therefore, recommend that State Governments should avail resources at concessional rates from Accelerated Power Development Programme (APDP) which has been promoted specifically for these matters. The Committee desire that MNES should take up the matter with the concerned States/ SEBs and PFC/ IREDA and assist in formulating bankable proposals. The Committee also recommend that MNES should consider the cost incurred on infrastructure works as a component of a project's cost and devise a scheme to evacuate power generated from SHPs. The Committee feel that the Government should encourage the use of power generated through SHPs in the surrounding areas itself thereby minimizing the need for transmission lines.

Action Taken Reply of the Government

Lack of evacuation facilities and inadequate financial resources with the State Governments could certainly hamper the growth of small hydro power projects. This aspect was discussed in detail with Ministry of Power. Ministry of Power and MNES have requested the States to avail the resources available under APDP programme. The States have been requested to address this issue. MNES is also exploring the possibility of mobilizing resources through International funding organizations, if possible.

The Ministry has started considering cost of evacuating power, in a limited manner, to be taken as a component of project cost for small size SHP projects under the Village Electrification Programme. It has also been decided to include the cost of Transmission & Distribution as project cost for SHP projects for village electrification. Keeping in view the over all budget availability for SHP programme, it may not be possible for MNES at this stage to launch a separate scheme to support evacuation of power from SHP.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 26 of the Chapter I of the Report)

Recommendation (Sl. No. 21, Para No. 3.46)

The Committee find that Small Hydel Projects are required to obtain clearances from Environmental and Forest angles. However, projects costing less than Rs. 50 crore are exempted from forest clearance, which approximately cover projects up to 10-12 MW. The Committee note that MNES had taken up the matter of exempting Forest clearances for SHP from MoEF, but of no avail.

Recommendation (Sl. No. 22, Para No. 3.47)

The Committee are surprised to note that SHP projects are subjected to clearances from Pollution Control Board also. The argument of MoEF that since HE projects disturb the inter-relationship which exist among water, air and land & human being, they are required to obtain clearances from State Pollution Control Board does not sound convincing. As the Ministry of Environment and forest/ State Pollution Control Boards have rarely come out with any such studies in different regions of the country and which they expect the developers of SHPs to protect. The Committee, therefore, recommend that Government should not insist for clearances from Pollution Control Boards. Accordingly, the relevant statute/ law should be amended to give effect to the recommendation of the Committee.

Recommendation (Sl. No. 23, Para No. 3.48)

In the opinion of the Committee, since neither much land is required for setting up of SHP and not is there any major displacement of human population, the present ceiling of Rs. 50 crore as project cost should be suitably enhanced based on their experience of present ceiling.

Action Taken Reply of the Government

The observations of the Hon'ble Standing Committee have already been forwarded to Ministry of Environment & Forest for remedial action. Secretary, MNES has also requested Secretary, Environment & Forest to re-examine the matter of providing exemption to SHP and other renewable energy base power projects from environment, forest and pollution point of view in the light of the recommendations of the Standing Committee on Energy. Comments from MoEF are still awaited.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Action Taken Reply of the Government (Updated Reply)

The observations of the Hon'ble Standing Committee were forwarded to Ministry of Environment & Forest to re-examine the matter of providing exemption to SHP and other renewable energy base power projects from environment, forest and pollution point of view in the light of the recommendations of the Standing Committee on Energy. Comments from MoEF have been received. As informed by MoEF, the threshold limit of Rs. 50c crores for obtaining environmental clearance has already been increased to Rs. 100 crores vide notification No. S.O. 632(E0) dated 13th June, 2002. As a result, most of the proposals relating to SHPs will get exempted from the purview of the EIA notification 1994. In case of proposals requiring environmental clearance, the public bearing has to be conducted by the respective State Pollution Control Board or which a time limit of 60 days has been prescribed under the notification.

MoEF has also mentioned that in the report of Standing Committee para 3.46 (recommendation No. 21), it has been stated that the projects costing less than Rs. 50 crores are exempted from forest clearance. They have clarified that no such exemption is provided under the provision of the Forest (conservation) Act 1980.

[Ministry of Non-conventional Energy Sources O.M. No. 20(21)/ 2000-SHP dated 17 January, 2003]

Comments of the Committee

(Please see Paragraph 29 of Chapter of the Report)

Recommendation (Sl. No. 24, Para No. 3.49)

The Committee note that neither 'Industry Status' nor 'priority sector' lending norms, have been made applicable for SHP sector. The Committee have observed that SHP sector is still in the process of near commercialization and more than ninety per cent of the potential, yet to be tapped, there is every justification of conferring the status of industry and extending priority sector lending norms to SHP sector. The Committee, therefore, desire that Government should extend these to SHP projects at the earliest.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources also feels that if the industrial status is granted by the States to the small hydro sector, it would certainly boost development of SHP projects. In fact some States have already done this and the Ministry has specifically requested the North Eastern States, which are in the process of formulating their policies, to grant "industrial" status to SHP projects.

The Ministry has taken up the matter regarding priority sector status to renewable energy based projects with Ministry of Finance and Reserve Bank of India (RBI). RBI has informed that under RBI guidelines, bank advances towards renewable energy based projects are already treated as "priority sector advances". All commercial banks have again been advised to accord priority for assisting the manufacturers and users of equipments based on new and renewable sources of energy. For this, a National level meet was organized by MNES in collaboration with Department of Banking in which all the leading banking and financial institutions of the country were requested to draw up commercial lending plans in the field of renewables into their credit plans. The recommendation of the Committee has also been placed before all the State Governments in the Annual Conference organized by MNES in May, 2002. MNES is continuously following up with the State Governments as part of policy on renewable energy to provide these benefits to renewable energy projects.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 32 of Chapter I of the Report)

Recommendation (Sl. No. 31, Reference Para No. 6.14)

The Committee are not convinced with the rationality of not extending concession capital subsidy/ interest subsidy to SHP located in areas of Uttaranchal and hills of Southern India, on the lines of North-Eastern States. The Committee are of the firm opinion that areas of Uttaranchal and hill tracts of Southern India are located in equally inaccessible, remote and difficult topography. The Committee, therefore, recommend that Government should review their decision and extend capital subsidy/ interest subsidy to these areas on the lines of North-Eastern States.

Action Taken Reply of the Government

The incentive schemes for the development of small hydro was reviewed by MOS (NES) on 30th May, 2002. As suggested by the Committee, it has been decided to examine extending the same level of incentives, as that for North Eastern States, to the SHP projects in Uttaranchal. The hilly regions of Southern India is being provided with the incentives as they are available for other hilly regions of the country. The Ministry is considering revising its incentive schemes accordingly.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Comments of the Committee

(Please see Paragraph 38 of Chapter I of the Report)

CHAPTER V

RECOMMENDATIONS / OBSERVATIONS IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

Recommendation (SL. No. 15, Para No. 3.40)

The Committee observe that most of the projects, have been inordinately delayed in the absence of well framed and accepted PPA. Despite repeated requests, the situation has not improved. The Committee note that though the Ministry of Non-conventional Energy Sources (MNES) have prepared a model PPA, it has not been accepted by the States. The Committee recommend that a model PPA drawing experiences from various States ensuring the entrepreneurship of a developer, a reasonable return on investment, a reasonable pay-back period and a reasonable payment terms should be prepared and circulated to all the States for its compliance. There should also be an in-built provision for reviewing the PPA after a fixed period of say 3 years.

Action Taken Reply of the Government

The Committee is right in observing that a well framed and accepted PPA is necessary for faster development of small hydro power projects through private sector participation. In fact, the rate of purchase of power is the most important parameter and if suitable rate is provided to the IPP, there could be a much faster growth in the SHP sector. However, the States are also governed by the State Regulatory Commissions in this regard. The Ministry has been facilitating the States by providing guidelines, model PPAs and also copies of the policies announced by other States, so that the States where policies have yet not been announced could draw lessons from these and draw up suitable policies.

Keeping in view the recommendations of the Committee, the Ministry of Nonconventional Energy Sources is instituting a study through Infrastructure Leasing & Financial Services Ltd. (IL & FS) to examine various renewable energy based power projects from the point of view of return on investment, pay back period, payment terms etc. and suggest guidelines on all aspects of renewable energy based power projects to make them attractive for private sector participation.

> [Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (SL. No. 16, Para No. 3.41)

Keeping in view the overall viability of the small hydro project, the Committee feel a minimum lease period of 30 years should be provided. It would be all the more attractive for the entrepreneurs if it is provided that the lease agreement would be eligible for renewable for another 30 years based on the past performance of the contractual obligations of ht entrepreneur.

Action Taken Reply of the Government

The recommendation of the Committee regarding minimum lease period of 30 years and further renewable for another 30 years has been communicated to the States. This would also be taken into consideration while formulating the new guidelines after the results of study proposed to be conducted through IL & FS.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

Recommendation (SL. No. 35, Para No. 7.14)

The Committee have noted that Indian equipment manufactures for SHP projects are able to supply the State-of-the-art equipments in about 4-8 months depending upon the size of the project. In order to avail the MODVAT benefit, 16% Central Excise have been allowed to the small hydro power project equipments. Concessional Custom Duty of 5% + surcharge + AD + SD is also permissible to the goods imported by a manufacturer for manufacture and supply of machinery and power equipment to a power generation plant. However, the Committee are sad to note that 100% accelerated depreciation as admissible to other renewable energy based devices/ projects is not available to SHP projects on the ground that most of the equipments like generators, control systems can be used in other power projects also. The Committee are not convinced with the reasoning of the Government in this regard. The Committee recommend that the 100% accelerated depreciation may be made available to the devices/ projects of the small hydel sectors. Needless to say, appropriate monitoring mechanism be evolved by the Government so that the equipments claiming such benefits are used exclusively for Small Hydro Projects.

Action Taken Reply of the Government

Ministry of Non-conventional Energy Sources would again approach Ministry of Finance with the recommendations of the Hon'ble Standing Committee, at the time of finalisation of budget proposals for the next year to provide 100% accelerated depreciation for the small hydro power projects. It may be mentioned that MNES had proposed many times to Ministry of Finance to provide this benefit to SHP sector at par with other renewable energy based projects.

[Ministry of Non-conventional Energy Sources OM No. 20(21)/ 2000-SHP dated 27th June, 2002]

NEW DELHI; <u>14 February, 2003</u> 25 Magha , 1924 (Saka) SONTOSH MOHAN DEV Chairman Standing Committee on Energy

ANNEXURE MINUTES OF THE FIRST SITTING OF THE SUB-COMMITTEE 'F' ON ACTON TAKEN REPORTS OF THE STANDING COMMITTEE ON ENERGY (2003) HELD ON 14TH FEBRUARY, 2003 IN COMMITTEE ROOM 'E', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Sub-Committee met from 15.00 hrs. to 15.30 hrs

PRESENT

Shri Sontosh Mohan Dev-ChairmanShri Tilakdhari Prasad Singh -Convenor

MEMBERS

4. Shri Santosh Bagrodia

SECRETARIAT

1.	Shri P.K. Bhandari	-	Director
2.	Shri R.S. Kambo	-	Under Secretary

2. At the outset, the Chairman, Sub-Committee 'F' on Action Taken Reports of the Standing Committee on Energy welcomed the Members to the first sitting of the Sub-Committee.

- 3. The Sub-Committee then took up for consideration the following draft Reports:
 - (i) Action Taken Report on the recommendations contained in the 25th Report (13th Lok Sabha) on the subject "Nuclear Power Generation-Targets and Achievements".
 - (ii) Action Taken Report on the recommendations contained in the 26th Report (13th Lok Sabha) on the subject 'Small Hydro Power Programme-An Evaluation."
 - (iii) Action Taken Report on the recommendations contained in the 27th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Department of Atomic Energy.
 - (iv) Action Taken Report on the recommendations contained in the 28th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Ministry of Non-Conventional Energy Sources.

- (v) Action Taken Report on the recommendations contained in the 29th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Ministry of Power.
- (vi) Action Taken Report on the recommendations contained in the 30th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Department of Coal.

4. The Sub-Committee adopted the aforesaid draft Reports with minor additions/deletions/amendments.

The Sub-Committee then adjourned

ANNEXURE II

MINUTES OF THE SECOND SITTING OF THE STANDING COMMITTEE ON ENERGY (2003) HELD ON 14TH FEBRUARY, 2003 IN COMMITTEE ROOM 'E', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee met from 16.00 hrs. to 17.00 hrs

PRESENT

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Shri Sontosh Mohan Dev

Chairman

MEMBERS

- 3. Shri Vijayendra Pal Singh Badnore
- 3. Shri Lal Muni Chaubey
- 4. Shri Bikash Chowdhury
- 5. Shri Ali Mohmad Naik
- 6. Shri Harpal Singh Sathi
- 7. Shri Tilakdhari Prasad Singh
- 8. Shri Manoj Sinha
- 9. Shri B. Venkateshwarlu
- 10. Shri Devdas Apte
- 11. Shri Santosh Bagrodia
- 12. Shri Jayanta Bhattacharya
- 13. Shri Dara Singh Chauhan
- 14. Shri Ajay Maroo
- 15. Shri B.J. Panda
- 16. Shri Gaya Singh

SECRETARIAT

1.	Shri P.K. Bhandari	-	Director
2.	Shri R.S. Kamba	-	Under Secretary

2. At the outset, the Chairman, Standing Committee on Energy welcomed the Members to the sitting of the Committee.

3. The Committee then took up the following draft Reports as adopted by the Sub-Committee already considered and adopted by the Sub-Committee 'F' on Action Taken Reports, for consideration:

(i) Action Taken Report on the recommendations contained in the 25th Report (13th Lok Sabha) on the subject "Nuclear Power Generation-Targets and Achievements".

- (ii) Action Taken Report on the recommendations contained in the 26th Report (13th Lok Sabha) on the subject 'Small Hydro Power Programme-An Evaluation".
- (iii) Action Taken Report on the recommendations contained in the 27th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Department of Atomic Energy.
- (iv) Action Taken Report on the recommendations contained in the 28th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Ministry of Non-Conventional Energy Sources.
- (v) Action Taken Report on the recommendations contained in the 29th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Ministry of Power.
- (vi) Action Taken Report on the recommendations contained in the 30th Report (13th Lok Sabha) on Demands for Grants (2002-03) of the Department of Coal.

4. The Committee adopted the aforesaid draft Reports with minor additions/deletions/amendments.

5. The Committee also authorized the Chairman to finalise the above-mentioned Reports after making consequential changes arising out of factual verification by the concerned Ministries/Departments and to present the same to the Houses of Parliament.

The Committee then adjourned

(Vide Para 4 of Introduction)

ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON RECOMMENDATIONS CONTAINED IN THE TWENTY-SIX REPORT OF THE STANDING COMMITTEE ON ENERGY (THIRTEENTH LOK SABHA)

I.	Total No. of Recommendations made		36
II.	Recommendations that have been accepted by the Government (Vide recommendations at SI. Nos. 1, 3, 5, 6, 7, 11, 14, 18, 19, 25, 26, 27, 28, 29, 30, 32, 33, 34 & 36)	19	
	Percentage of total		53%
III.	Recommendations which the Committee do not desire to pursue in view of the Government's replies (Vide recommendations at SI. No. 4)	1	
	Percentage of total		3%
IV.	Recommendations in respect of which replies of the Government have not been accepted by the Committee (Vide recommendations at SI. Nos. 2, 8, 9, 10, 12, 13, 17, 20, 21, 22, 23, 24 & 31)	13	
	Percentage of total		36
V.	Recommendations in respect of which final replies of the Government are still awaited (Vide recommendations at SI. Nos. 15, 16 & 35)	3	
	Percentage of total		8