

Minutes of the Internal Discussion of the Shelter Advisory Group held at Collectorate (Mini Conference hall) on 15.11.2006

The meeting was presided over by Mr. Kandasamy, Special Deputy Collector, Relief and Rehabilitation.

Participants:

1. Mr. Kandasamy, Special Deputy Collector, Relief and Rehabilitation.
2. Proff.. A.R. Santhakumar , Advisor UNDP
3. Ms. Annie George , CEO, NCRC.
4. Mr. V. Vivekanandan, Steering Committee Member, NCRC
5. Mr. M. Syed Mohamed Abuthalib , Executive Engineer (PMIs), Chennai
6. Mr. K.G.Rajan, Executive Engineer (Chennai)
7. Mr. Lakshminarayanan , EE / Nagai / TNEB.
8. Mr. Jignesh Patel , Member IHD.
9. Mr. Dipan Shah , Managing Coordinator (IHD) ,
10. Mr. P. Chandrasekaran , Asstistant Engineer, TWAD.
11. Mr. K. Manikam , Executive Engineer / TDIU / Collectorate Nagai.
12. Mr. Alok Patnaik , Shelter Specialist, UNDP.
13. Mr. Prasant Hedao, Planning Coordinator, Auroville Tsunami Rehab Project.
14. Mr. Justin Samuel , UNV
15. Mr. Kitish Chandra Mohanta , UNV, Shelter , Nagai.
16. Mr. Biju Jacob George, Sector Head, NCRC,
17. Mr. Prakash, NCRC
18. Mr. Ravi, NCRC

Agenda

- Internal discussion of the Shelter Advisory Group to understand the emerging issues and concerns and to formulate specific plan of action/ roles and responsibilities of the SAG and SSG. And to explore the integration of the district monitoring mechanism with the present system.
- Presentation to the SAG by the SSG
- Presentation by the District Monitoring Committee to the SAG.
- Finalising the Plan of Action by the SAG based on the presentations.

The discussion was initiated by Mr. Kandasamy with a round of self-introduction.

The first round of discussion touched the following topics:

1. Field level Monitoring Team

- Mr.Kandasamy opined that there was a missing link between the discussions, which were going on at the top- level, and the work that was going on at the field level. He was strongly of the opinion that these discussions need to be translated to good quality work at the field level and that mechanism was not in place.
- Although the District Administration had put in place a monitoring team, the engineers had left for better prospects
- All present agreed that a monitoring team, which also provided hand- holding support to the field level activities, was of utmost importance and needs to be reconstituted at the earliest.

- This Monitoring Team, functioning directly under the Exec. Engr. TDIU, should, apart from progress tracking, quality monitoring, ensuring compliance with the guidelines at the field level and providing advisory support to the NGOs, also ensure that the recommendations of the Shelter Advisory Group are complied with at the site.
- Mr. Syed Mohamed Abuthalib , Executive Engineer (PMIs) said that a financial provision was made @Rs. 7500/- per day per person for monitoring. However, there were additional costs as well as lack of mobility that was hampering a smooth functioning. Mr. Alok Patnaik, of UNDP, calculated the costs (including motor bikes for transportation) at roughly Rs. 25 lakhs per annum and said that this was a small sum compared to the enormous investment that was happening in the shelter sector and the whole intervention costing nearly Rs. 500 Cr. should not become a disaster just because the authorities were unable to make provisions for this amount. He also indicated that the SSG would be able to help the Administration partially source these funds from other donors, if necessary.

2. Training

- It was unanimously agreed that the monitoring team so formed will have to be trained in the disaster proof construction aspects as well as in retro-fitting. The SAG and the SSG, agreed that they would undertake the training.

3. Electricity Connections

- Mr. Lakshminarayanan , EE / Nagai / TNEB, expressed his concern over the delay on the part of the NGOs in applying for electricity connection for the houses which are ready and for which meter connection have yet to be given. He opined that there were about 1800 such houses.

Some of those sites are as follows :

- Salt road – 34 houses
 - Kameshwaram – Karam – 80 houses
 - Akkaraipettai – 94 houses.
 - Vilundamavadi South – DPG – 109 houses
 - Thethi – Jaammaat-E-Islami Hind – 100 houses.
 - Andanapettai – TMSSS –
- Mr. Kandasamy (R & R) expressed concern on the fact that people could not occupy the completed houses due to lack of basic amenities. He requested TNEB to consider the prevailing situation and take quick steps in giving the connection to the houses newly built.

4. Maintenance of houses handed over

- Houses in some of the sites already handed over, like Olakottaimedu, were already showing cracks and most of the other houses were leaking.
- SAG felt that weather- proofing of the houses have to be insisted upon. Maintenance-liability contract could be another alternative to make the NGO responsible for poor quality construction. As a beginning, it was recommended that the Administration write to the NGOs concerned requesting them to take corrective action.
- Mr. Manikam Executive Engineer, TDIU, expressed that the NGOs were asking for a stability certificate, which was not possible under the present circumstances as the houses are not inspected and checked from the initial stages itself. A completion

certificate could be given saying all that was specified in the drawing has been followed.

- It was also recommended that a checklist be drawn up for the items to be checked before taking over of the completed houses by the Admn.
- Mr. Kandasamy, (R & R) stated that the insurance company, insuring the buildings, would also test the structural soundness of the buildings. When asked about who will insure the houses R & R expressed that the NGOs have to insure the houses for 10 years and recurring amount will be borne by the beneficiaries.
- Prof. Shanathakumar also said that there were methods available to test even the houses that are completed.
- Considering all this, the SAG strongly recommended that Third party quality tests, which are non- destructive, be done at 0.5% of the sites and this can be done by Anna University/ IIT Chennai etc.
- Mr. Kandasamy also suggested that the remarks made by the SSG/ SAG on the construction quality and other aspects have to be brought to the notice of all NGOs during the regular review meetings.

5. Monitoring Formats

- It was suggested by the SAG that the monitoring reports be submitted to the SAG every fortnight.
- The Executive Engineer, TDIU, Nagapattinam was nominated the Nodal Point for the SAG
- The draft format given by the SSG was found to have a mix of both static and dynamic info. Requirements. They were asked to separate the information requirements based on its periodicity – like one- time requirements, fortnightly requirements and those that are required only once in three months or more
- The format was also to have separate tables for sanitation, solid waste management and drainage
- The SSG was requested to actually fill in these formats as a pilot to test its adequacy and appropriateness at the field level.

6. Presentation by the SSG

Following this, the Shelter Support Group made a presentation to the SAG on the quality of construction and sanitation issues noted in the sites visited by them. The sites visited were: Vilundamavadi South, Vilundamavadi North, Vanavanmahadevi, Pazhayar, Perumalpettai, Pudukuppam, Keezhamoovarkarai, Maniyantheevu, Mottandithoppu, Pushpavanam, Vellapallam, Velanganni, Nambiyar Nagar, Uzhavar Street, Sellur, Ambedkar Nagar North, Ambedkar Nagar South.

The presentation included some common and some site- specific issues.

Common Issues:

- The Corner reinforcement of rods
- The Cover blocks not being used
- The design detailing not clear and explained fully.
- Honeycombing is a common feature
- Brickwork generally poor

- Construction practices also seen to be generally poor
- Column deviation
- Leakage

The major concerns to be raised in the meeting with NGOs were as follows:

- Concreting without clear cover.
- Columns without proper cover
- Water Proofing
- No anchorage of beam
- Wrong detailing
- Detailing and anchoring of bar.

After the presentation the following recommendations were put forward by the SAG for the consideration of the Collector and the NGOs:

- Water proofing and weather proofing to be made mandatory
- Proper plastering with adhesives and curing for the same to be done properly.
- Proper detailing should be available and followed
- One to one discussion between the NGOs having quality related issues and Shelter Advisory Group.
- Need to ensure that no ad-hoc changes are made in the civil structure

**Minutes of the 2nd Technical Clinic
Held on 15th Nov. at Mini Conference, Collectorate**

Participants:

1. Prof.. A.R. Santhakumar , Advisor UNDP
2. Ms. Annie George , CEO, NCRC.
3. Mr. V. Vivekanandan, Steering Committee Member, NCRC
4. Mr. M. Syed Mohamed Abuthalib , Executive Engineer (PMIs), Chennai
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13. Mr. Kitish Chandra Mohanta , UNV, Shelter , Nagai.
14. Mr. Biju Jacob George, Sector Head, NCRC,
15. Mr. Prakash, NCRC
16. Mr. Ravi, NCRC
17. Lutheran World Services
18. Tata Relief Committee
19. Bitsunami
20. EFFICOR
21. SOS
22. CEE South
23. RCPDS / SPEECH
24. GGF
25. SEVAI
26. World Vision
27. SIFFS
28. Save the Children
29. Help a Child of India
30. DPG
31. TMSSS
32. The Salvation Army
33. BUILD
34. REAL
35. Care Plan
36. IAHV
37. Word and Deed
38. PDA
39. UELCI
40. CASA
41. Peace Trust

A presentation was done by the Shelter Support Group to the NGOs about the sites visited by them: Vilundamavadi South, Vilundamavadi North, Vanavanmahadevi, Pazhayar, Perumalpettaia, Pudukuppam, Keezhamoovarkarai, Maniyan theevu, Mottandithoppu, Pushpavanam, Vellapallam, Velanganni, Nambiyar Nagar, Uzhavar Street, Sellur, Ambedkar Nagar North, Ambedkar Nagar South. In all 17 locations with 15 NGOs involved in the construction.

The presentation included some of the common issues and specific issues. The recommendations were as follows:

1. If the column is an M20 column then cover block has to be M20.
2. The stirrups should cater to shear force
3. External stirrups can be inserted through retrofitting.
4. For the load bearing structure the corner reinforcement should be embedded with concrete.

The most important aspects, in order of priority, for construction were also stressed as:

1. Column alignment
2. Roofing
3. Detailing of reinforcement which if not clear can lead to collapse of the structure.
4. Brick work, where by the joints between bricks should not be vertical
5. The foundation to be given most importance and the importance of testing.

There were two question asked after the session by the participants.

1. Is inverted T beam recommended?

- Inverted T Beams are not recommended for roofing. However, if used then the number of stirrups used should be double that used for ordinary beams
- Inverted T Beams can be used as strip footing after having cast an RCC footing in the case of soils having low load bearing capacity.

2. What type of lapping is recommended?

It was said to depend upon the tension. Normally 45 X D for tore steel and for mild steel 60 X D is the recommended lap length .

This was followed by a presentation on Sanitation aspects. The presentation included aspects related to sanitation and the roles of the Govt. and the NGOs in sanitation. They also remarked on the types of interim arrangements made by the NGOs at present, including their advantages and disadvantages. The District Administration specified that sanitation for sites with more than 200 houses are being by constructed by the government and the current thinking is to even take up the sites with less than 200 houses. The SAG recommended that the interim arrangements made by the NGOs should take into consideration the time frame and the compatibility with the ecological factors like the water table. As far as the solid waster disposal is concerned, it was observed that NGOs had not made any provisions for waste bins and that it should be considered seriously. Vermicomposting and ordinary composting were also suggested and the necessity of awareness creation among the community to foster community participation was emphasized.

Prof. Santhakumar suggested training programmes at various levels:

- Training program for the Engineers
- Training program for the Supervisors
- Training program for the Artisans / Masons and Bar benders.
- Training program for the beneficiaries

When the team was asked about alternate means to handling materials scarcity, the SSG stated that such scarcity was experienced even in the reconstruction after the Gujarat quake, but the NGOs had jointly agreed that quality would not be compromised, even if it results in a

delay. The SSG also suggested that the NGOs bring up these issues on a common platform, which could then be discussed with the policy makers and the Admn. for a common consensus. They stated that alternatives also existed like artificial sand, which is the method adopted by countries where sand is not available.

The meeting came to a close by 5.30 pm after which the SAG had a separate sitting with Sevai and Salvation Army.