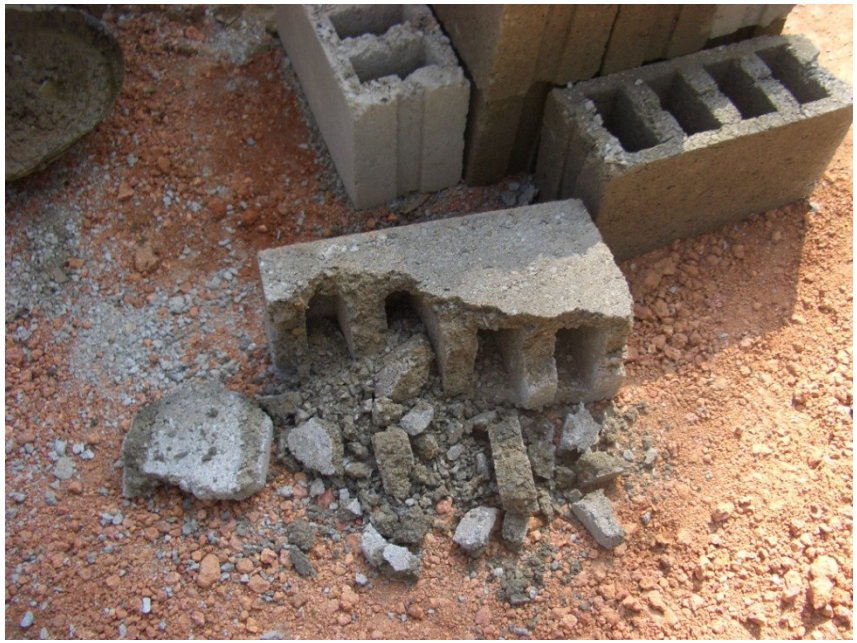
HOW TO IDENTIFY BUILDING DEFECTS

- BE OBSERVANT
- CHECK QUALITY OF MATERIALS, FOUNDATION, SUPERSTRUCTURE, ROOF, DOORS & WINDOWS, WALL & FLOOR RENDERINGS & FINISHES
- USE A CHECKLIST

PRACTICAL ACTION
Intermediate Technology Development Group

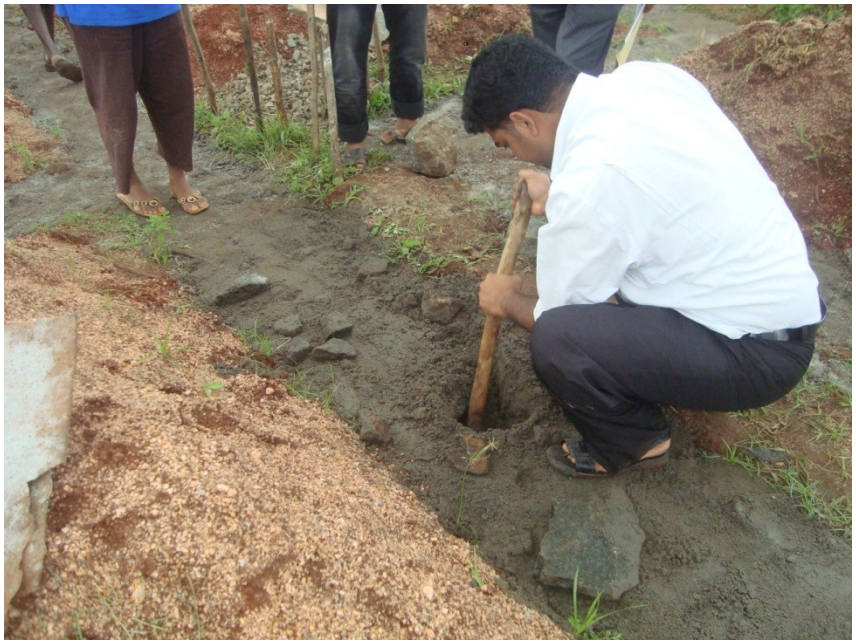
POOR QUALITY OF BUILDING MATERIALS

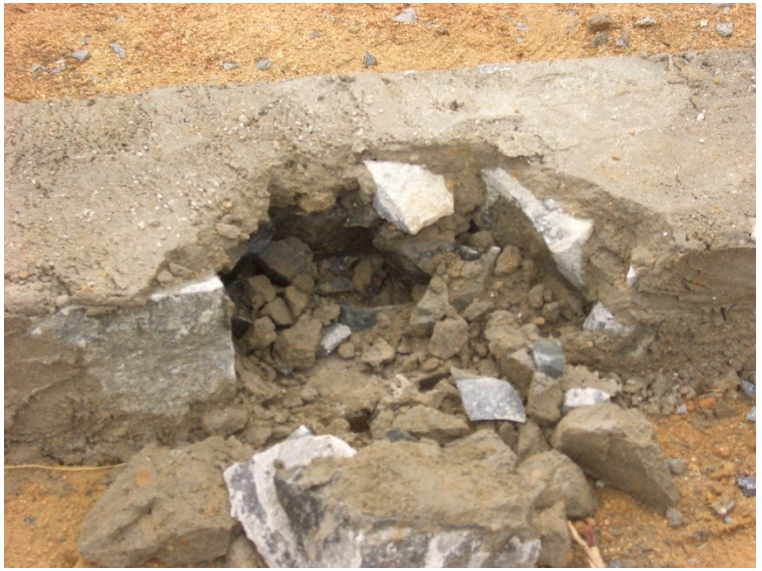
- Masonry blocks or bricks must measure up to required standard.
- Use simple drop test to determine quality of bricks or blocks
- Reject inferior bricks or blocks



PRACTICAL ACTION
Intermediate Technology Development Group

FOUNDATION FAULTS





PRACTICAL ACTION
Intermediate Technology Development Group

MASONRY MISTAKES

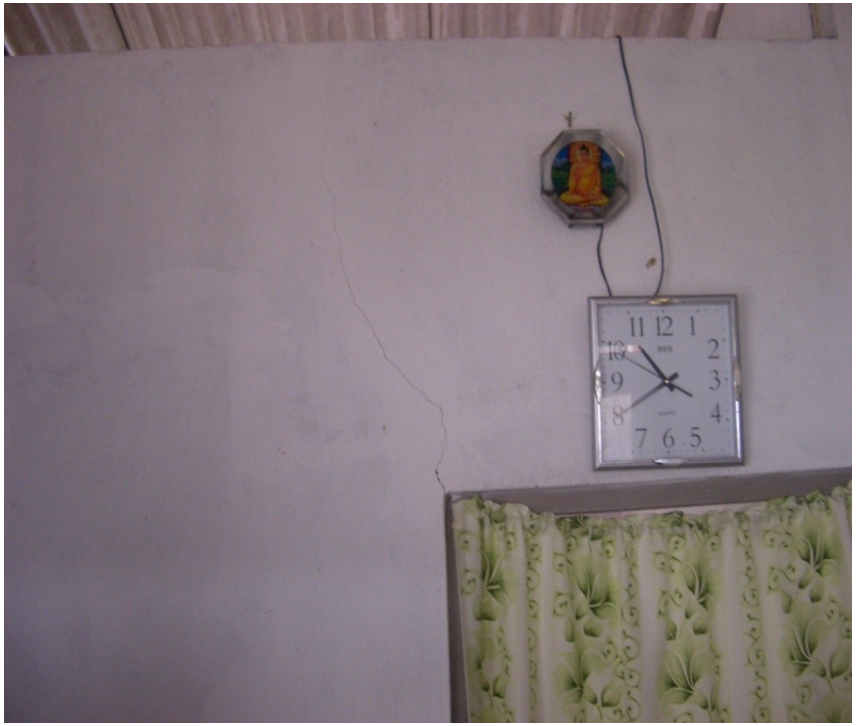
PRACTICAL ACTION
Intermediate Technology Development Group

FOUNDATION/SUPERSTRUCTURE FAULTS

- Faults in foundation can cause crack in superstructure walls
- Failure to key-in adjoining walls can cause cracks in superstructure walls

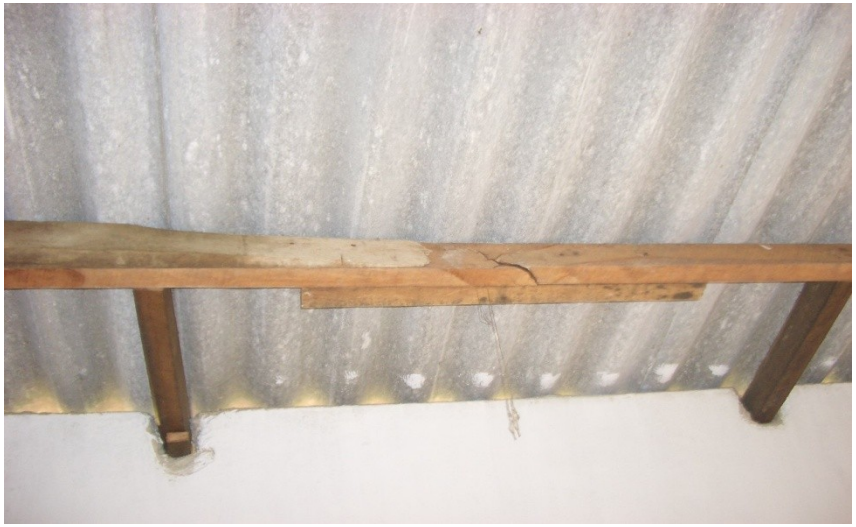
PRACTICAL ACTION
Intermediate Technology Development Group

MASONRY MISTAKES



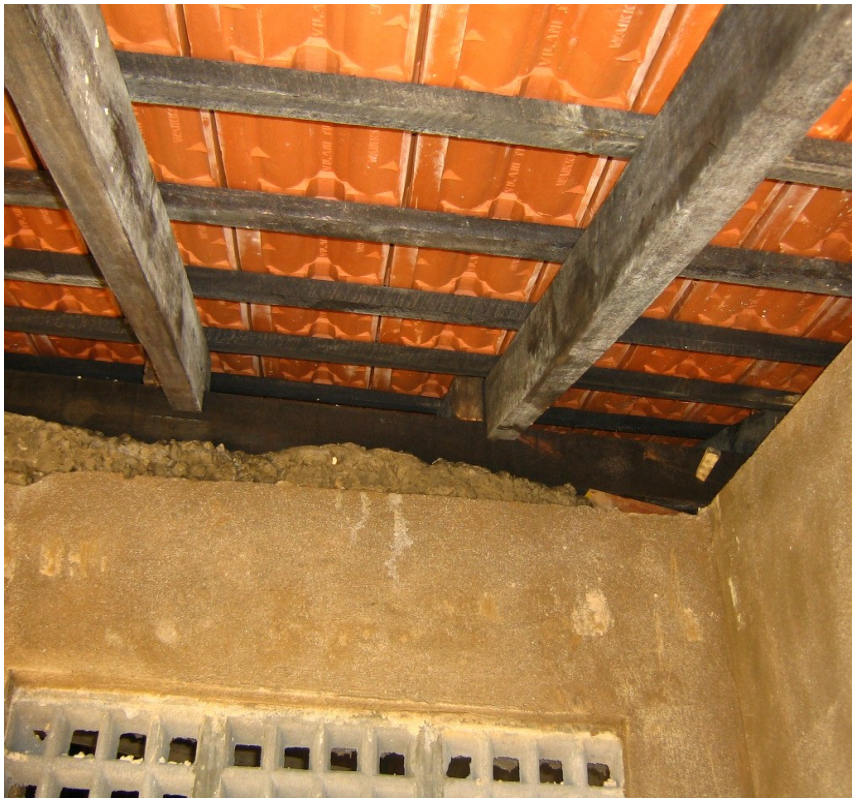
PRACTICAL ACTION
Intermediate Technology Development Group

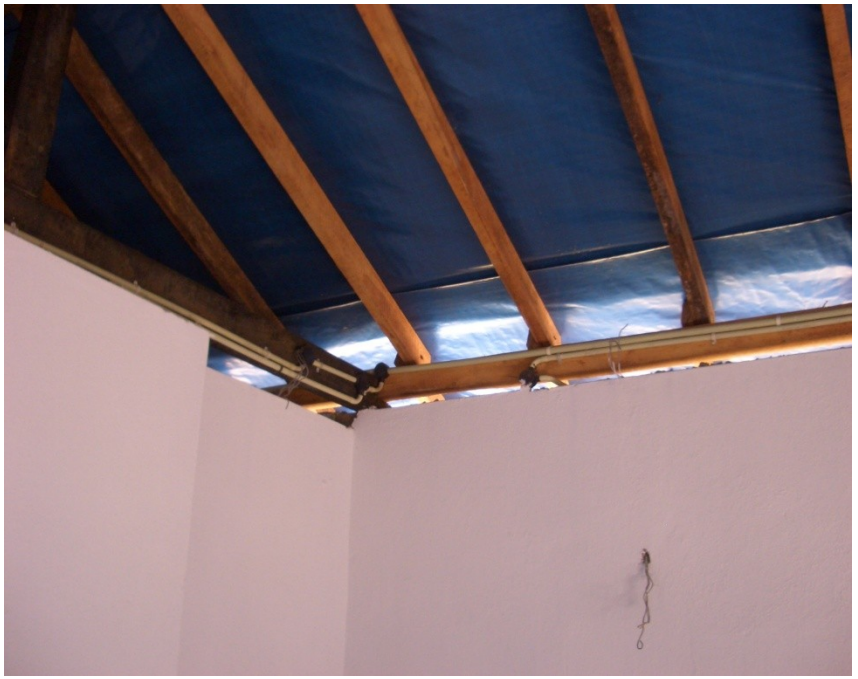
FAULTY ROOF SUPPORT FRAMING



PRACTICAL ACTION
Intermediate Technology Development Group

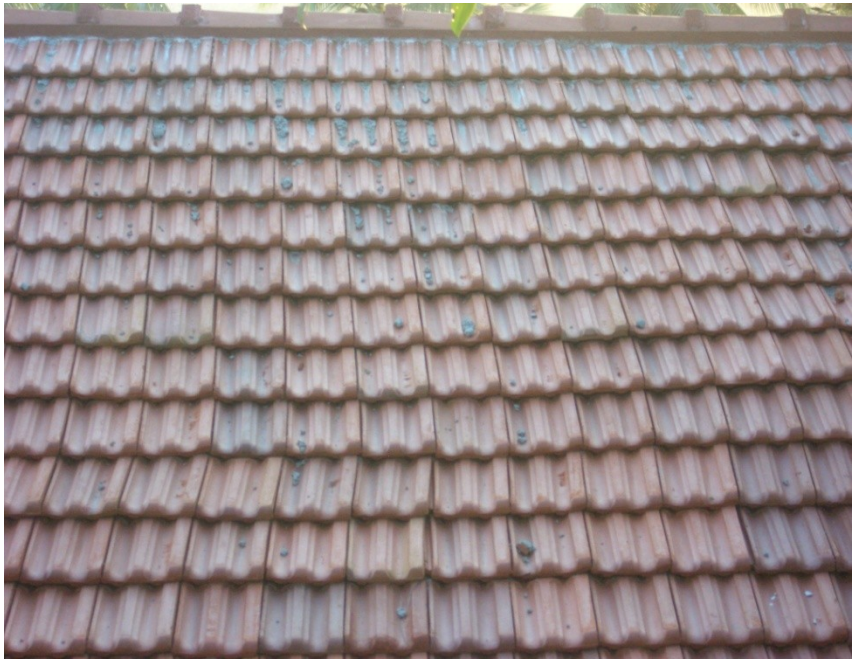
IMPROPER WALL PLATE PLACEMENT

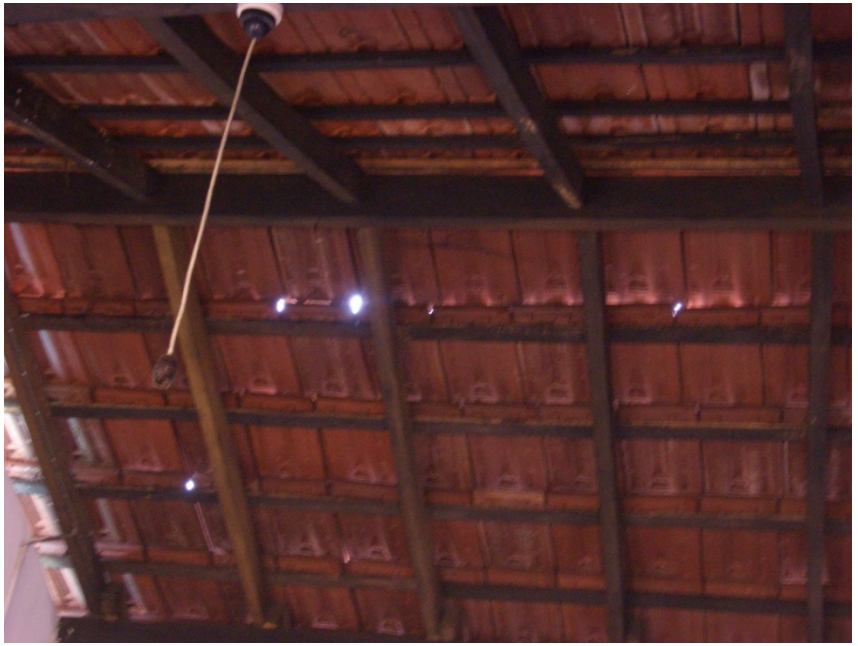




PRACTICAL ACTION
Intermediate Technology Development Group

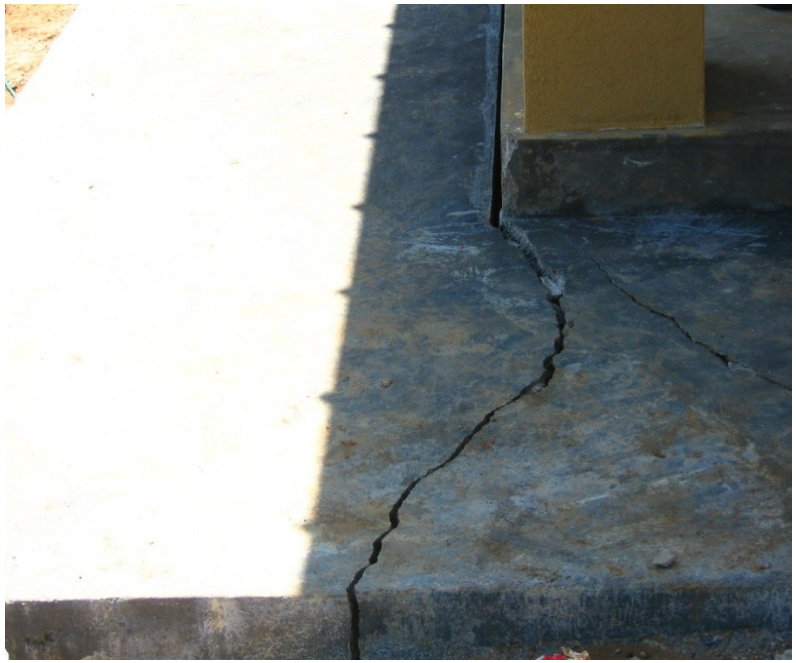
IMPROPER PLACEMENT OF ROOF TILES





PRACTICAL ACTION
Intermediate Technology Development Group

FLOOR FAULTS



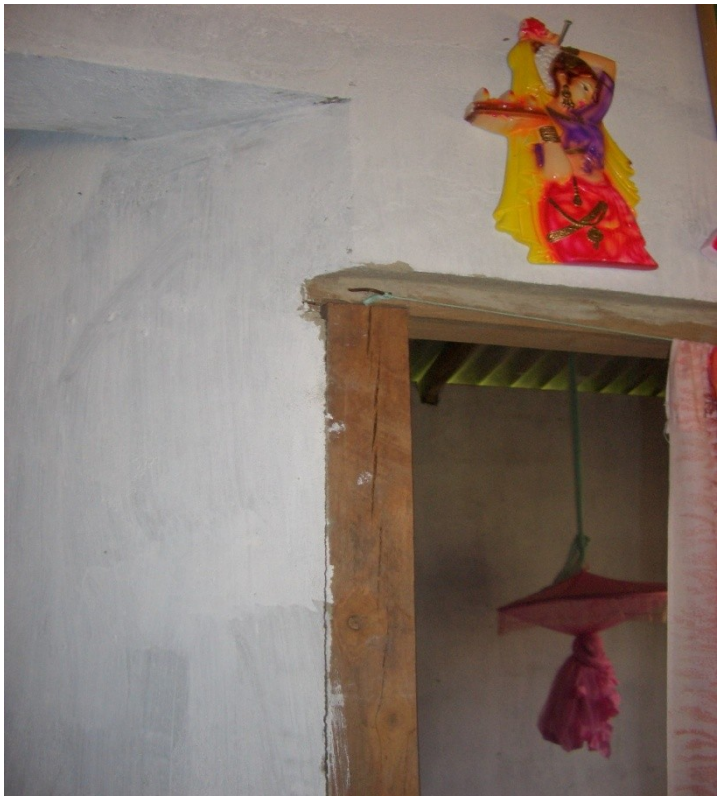
PRACTICAL ACTION
Intermediate Technology Development Group

FLOOR AND WALL RENDERING

- Check surface quality of floor rendering
- Check surface quality of plaster rendering on walls
- Re-do defective surfaces using proper rendering method

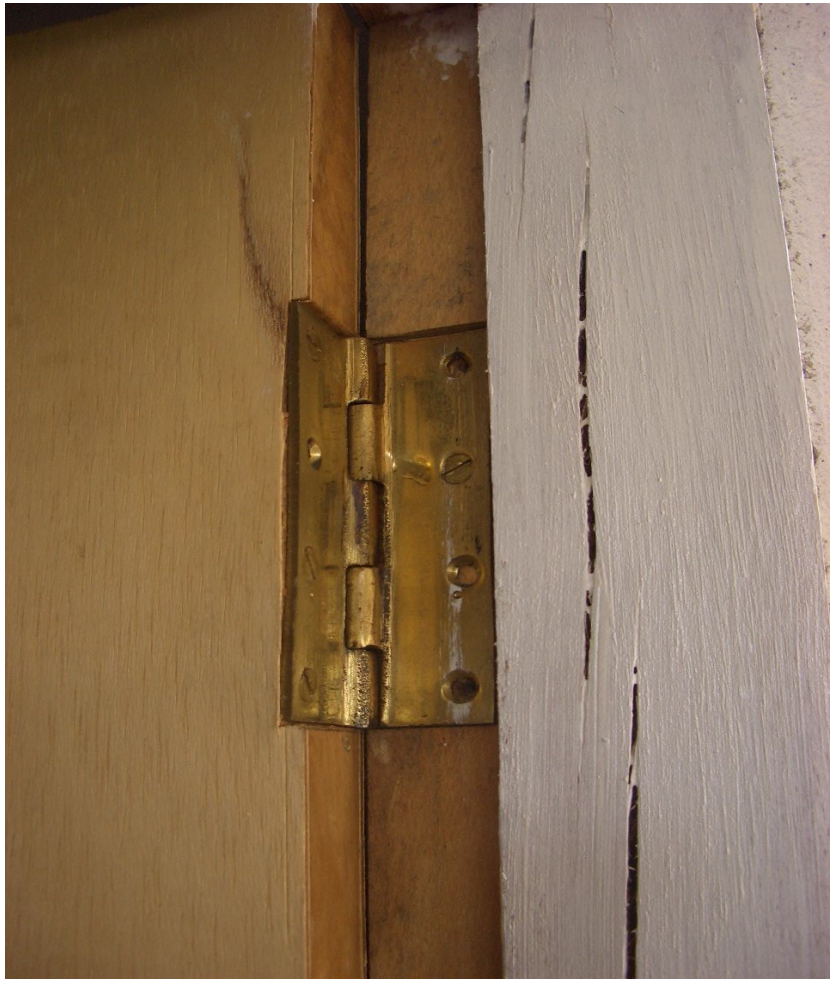
PRACTICAL ACTION
Intermediate Technology Development Group

DOOR & WINDOW FRAME QUALITY



PRACTICAL ACTION
Intermediate Technology Development Group

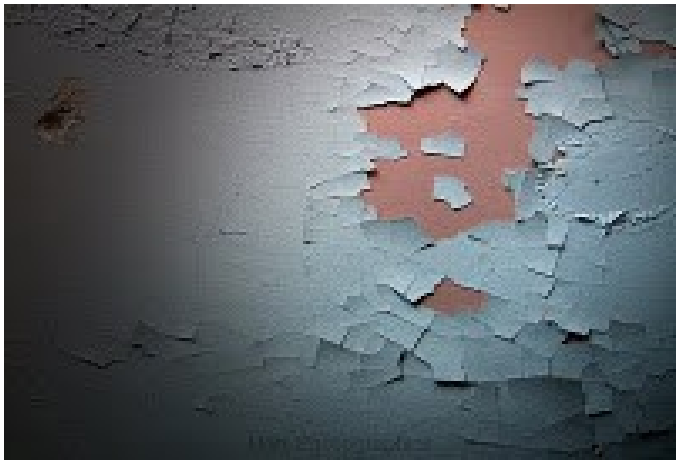
DOOR AND WINDOW FIXING

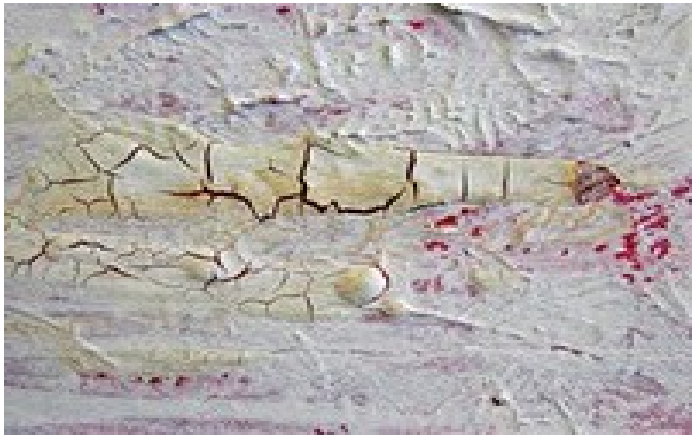


- Check on adequacy of hinges
- Ensure that hinges have all required screws
- Check smooth movement of doors & windows

PRACTICAL ACTION
Intermediate Technology Development Group

PAINT FINISHES





- For blistering, flaking, peeling and cracking; identify & eliminate source/s of dampness. Remove loose paint, ensure surface is free of grease, and allow to dry. Apply primer coat and repaint following manufacturer's instructions.

PRACTICAL ACTION
Intermediate Technology Development Group

EVALUATOR'S CHECKLIST

1. Building plan & section conform to drawing/s
2. No visible evidence of structural failure in foundation
3. No visible evidence of structural failure in plinth
4. Floor height above ground level is suited to site conditions
5. Superstructure walls (external & internal) are of specified thickness
6. No visible evidence of structural failure in superstructure walls
7. RCC columns (if used) are free of visible structural defects
8. RCC continuous lintel has been provided

PRACTICAL ACTION
Intermediate Technology Development Group

EVALUATOR'S CHECKLIST (Cont.)

9. Required vertical MS rfmt. bars @ specified locations have been provided from RCC lintel & hooked @ w/plate

10. Wall (external & internal) plaster renderings conform to required standard

11. All floors are free of cracks & properly rendered

12. Roofing material (tiles / corrugated sheets) properly fitted/laid

13. Roof slope/s meet specified standards

14. No evidence of roof sag or roof support structure failure, poor quality roof framework

15. Required number of concrete strips @ appx. 6ft. centers have been laid on tiled roof

PRACTICAL ACTION
Intermediate Technology Development Group

EVALUATOR'S CHECKLIST (Cont.)

16. Timber roof framing members are of suitable timber & size and have been treated/ painted adequately

17. Valance boards & barge boards at roof are of good quality, treated/painted, suitably sized & properly fixed.

18. Ceiling (if provided) heights meet mandatory standards

19. Door frames are of good quality and properly sized

20. Doors are of good quality and open/close smoothly

21. Window frames are of good quality and properly sized & positioned as per approved drawings

22. Window shutters are of good quality and open/close smoothly

PRACTICAL ACTION
Intermediate Technology Development Group

EVALUATOR'S CHECKLIST (Cont.)

23. Door hardware / hinges are of good quality & properly fitted
24. Window hardware / hinges are of good quality & properly fitted
25. Cement rendering of plinths meet mandatory standards
26. Ceiling (if provided) finishes meet acceptable standard
27. There is adequate cross ventilation within the building
28. Kitchen work top is properly fabricated and fitted
29. Paint finishes on plastered wall/ beam surfaces meet mandatory standards
30. Paint finishes on all woodwork and metal work meet mandatory standards

PRACTICAL ACTION
Intermediate Technology Development Group

RECTIFY IDENTIFIED BUILDING DEFECTS

- SPECIFY CORRECTIVE ACTION TO RECTIFY DEFECTS THAT ARE NOTED
- STRESS IMPORTANCE OF USING QUALITY MATERIALS AND WORKMANSHIP
- STRESS IMPORTANCE OF SAFETY AND SUSTAINABILITY OF BUILDING
- RE-CHECK AFTER RECTIFICATION

PRACTICAL ACTION
Intermediate Technology Development Group

THANK YOU

Vasant Pullenayegem

Housing Consultant

PRACTICAL ACTION
Intermediate Technology Development Group