

IX. Appendix

Appendices A through H are sample forms developed during the pilot phase of the CDMP Safer Roof Program. The forms are provided for use by LIAs launching or expanding a Home Improvement and Hurricane Resistance Program. Users should feel free to adapt these forms to accommodate specific local needs and organizational identification.

- A. Survey Questionnaire
- B. Loan Application Form
- C. Loan statistical Summary
- D. Project Estimate Form
- E. Loan Decision Form
- F. Loan Arrears Report
- G. Minimum Standards Checklist
- H. Easy Guide Checklist for Retrofitting Modest Homes
- I. Technical Booklet - *Making the Right Connections*

Appendix A.
Survey Form / Questionnaire
Page 1

**Hurricane Resistant Home Improvement Program
Survey Questionnaire**

PERSONAL

- (1) AGE. _____ (2) SEX: M/F _____ (3) MARITAL STATUS (M/S/D/F) _____
(4) OCCUPATION: _____ (5) FULL TIME/ PART TIME
(6) INCOME FREQUENCY Weekly Fortnightly Monthly Otherwise
(7)

WEEKLY

Under 100,
101-250.
Over 250

FORTHNIGHTLY

Under 200, 200-250, 500-750
Over 750

MONTHLY

Under 500, 501-1000, 1001-2000
Over 2000

- (8) Do you have any sources of income? _____

HOUSE

- (9) What type of house do you own?

(a) Wooden (b) Concrete (c) Wooden -Concrete (d) Other

- (10) How many rooms are in the house? (a) 1 Room (b) 2 Rooms (c) 3 Rooms (d) More

- (11) Who owns the house? (a) Self (b) Family (c) Friend (d) Other (specify). _____

- (12) Is the house insured? Yes _____ No _____

- (13) How many persons live in the house? (a) 3 (b) 4 - 6 (c) 7 - 9

- (14) How many in the household work? _____

HOUSE OWNERS

- (15) How was the house constructed?

(a) Contractor (b) Workers (c) Self-Help (d) Other

- (16) How much did your house cost to constructed?

(a) Under 20,000 (b) 20,001 - 40,000 (c) Over 40,000

- (17) Has your house ever been struck by hurricane? Yes _____ No _____

Survey Form / Questionnaire

Page 2

**Hurricane Resistant Home Improvement Program
Survey Questionnaire**

(18) If yes, what section was damaged? (a) Roof (b) Walls (c) Other

(19) How would you rate house safety during a hurricane?

(a) Unsafe (b) Slightly Safe (c) Safe (d) Very Safe

(20) Can the house be made Safe? Yes _____ No _____

(21) If yes, how? Reinforcing Roof _____ Other _____

(22) What are the major constraints in making your house safer?

(a) Money (b) Contractor (c) Time (d) Other

(23) If loans were available at any of the following would you accept?

(a) Credit Unions _____ (b) Banks _____

(c) National Development Foundation _____ (d) Others _____

(24) If loans were available, what type of loan would you like?

(1) Size: (a) Under 1000 (b) 1001-2000 (c) 2001-3000

(2) Duration. (a) Under 6 mths (b) 7 mths - 12 mths (c) 13 mths-18 mths (d) Above 18 mths

(3) Security: (a) Cash _____ (b) Guarantor _____ (c) Bill of Sale _____ (d) Other _____

(25) Would you be interested in loans for repairs of other sections of your house?

Yes _____ No _____

(26) If yes, which sections? (a) Foundation _____ (b) Walls _____ (c) Other _____

Appendix B.
Loan Application Form

LOAN APPLICATION

Page 1

All information given in this form will be held in the strictest confidence.

NAME: _____ APPLICANT NO: _____

ADDRESS: _____

TEL NO (H) _____ (W) _____

SEX: M/F _____ AGE: _____ MARITAL STATUS (M/S/D/P) _____

CONTACT ADDRESS: _____

NO OF DEPENDENTS: _____ EDUCATIONAL BACKGROUND _____

MAIN EMPLOYMENT: _____ INCOME (P/M) _____

PLACE OF EMPLOYMENT: _____

OTHER EMPLOYMENT: _____ INCOME (P/M) _____

STATEMENT OF AFFAIRS

ASSETS

LIABILITIES

Bank Accounts: _____

Bank Loans: _____

Land/Building: _____

Other Loans: _____

Vehicle: _____

Other (state): _____

Other (State): _____

TOTAL ASSETS: _____ **TOTAL LIABILITIES:** _____

LOAN APPLICATION

Page 2

Have you applied to _____ before? Yes _____ No _____ Result _____

Date of previous application _____

If rejected, reason _____

How did you find out about this loan program. _____

Location _____ (N, S, E, W, NE, SE, NW, SW) Area (Rural/ Urban)

Status of ownership of (1) Building _____

(2) Land _____

If lease hold for any of the above, then a copy of the lease agreement must be submitted along with written permission from the Landlord to carry out the stated repairs.

Loan Amount requested. \$ _____

Purpose of loan request

Details

- | | | | |
|----|----------------------|-------|-------|
| 1. | Purchase of Material | _____ | _____ |
| 2. | Payment of Labour | _____ | _____ |
| 3. | Transportation | _____ | _____ |
| 4. | Other (State) | _____ | _____ |

TOTAL REQUEST _____

Initial Funding for construction of building (1) _____

Other Sources of Funding (2) _____

Amounts outstanding from (1) and (2) above \$ _____

Is Certificated of Title to Property available? Yes _____ No _____

What is the value of the property: \$ _____

P.S All applications must be accompanied by Bill of Quantities certified by an estimator recognized by _____ as having the authority to do so.

LOAN APPLICATION

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		Value
Security Offered.	_____	_____
	_____	_____
	_____	_____

TOTAL VALUE OF SECURITIES:

Method of Repayment.

- (1) Salary Reduction (Self).
- (2) Salary Deduction Guarantor
- (3) Authorization on Crop Sales
- (4) Other Sales:
- (5) Over the Counter:

I hereby certify that all the information given in this document is true and correct and that I have not held back any information which would negatively effect the decision to make the loan.

I further agree that as a condition of approval of the loan, that loan agency officers or anyone authorized by the loan agency Director will be allowed to inspect my premises at any reasonable time, during the renovation/operation, to obtain relevant information re the use of loan funds and compliance with the loan agreement.

Signed this _____ day of _____ 19 _____

SIGNATURE OF APPLICANT

SIGNATURE OF OFFICER

Appendix C.
Loan Statistical Summary

LOAN STATISTICAL SUMMARY

CLIENT'S NAME	GENDER	AMOUNT REQUESTED	AMOUNT APPROVED	LOCATION	DATE APPROVED
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Appendix D.
Project Estimate Form

Page 1

HURRICANE RESISTANT HOME IMPROVEMENT PROJECT ESTIMATE
FORM

- 1 NAME OF ESTIMATOR _____ 3 OWNER _____
2. ADDRESS _____
4. ADDRESS _____
5. OCCUPANT _____
6. OWNER AUTHORIZED RETROFITTING? YES _____ NO _____
7. IF YES OWNER'S SIGNATURE _____
8. TYPE OF CONSTRUCTION: TIMBER _____ CONCRETE _____
- 9 IF OTHER, BRIEF DESCRIPTION _____
10. SHAPE OF BUILDING
(ATTACH SKETCH WITH DIMENSIONS).
11. SIZE OF BUILDING LENGTH _____
WIDTH _____
TOTAL AREA _____
- 12 SHAPE OF ROOF: GABLE _____
HIP _____
MONO PITCH _____
OTHER: DESCRIBE _____
13. TYPE OF ROOF COVERING: GALVANIZED _____
SHINGLES _____
OTHER. DESCRIBE _____
14. CONDITIONS OF ROOF
COVERING GOOD _____
POOR _____
VERY POOR _____

Project Estimate Form

Page 2

15 GENERAL CONDITIONS OF BUILDING

GOOD _____

POOR _____

VERY POOR _____

16. ROOF RETROFIT?: YES _____ NO _____

Description	Size	Length	Quantity	Unit Price	Total Price
FASCIA BOARD					
GALVANIZED	_____	_____	_____	_____	_____
SHEETS	_____	_____	_____	_____	_____
GALVANIZE					
NAILS	_____	_____	_____	_____	_____
RAFTERS					
PURLINS OR	_____	_____	_____	_____	_____
LATHS	_____	_____	_____	_____	_____
ROOF PLATE	_____	_____	_____	_____	_____
RIDGE POLE	_____	_____	_____	_____	_____
HURRICANE					
TIES	_____	_____	_____	_____	_____
ANCHOR BOLTS	_____	_____	_____	_____	_____

17. TYPE OF FOUNDATION.

CONCRETE PILLARS _____

TIMBER PILLARS _____

LOOSE BLOCKS OR STONES _____

CONTINUOUS CONCRETE _____

WITH FLOOR SLAB _____

OTHER: DESCRIBE _____

Project Estimate Form

Page 3

18 RETROFIT FOUNDATION ? YES _____ NO _____

HEIGHT OF FLOOR ABOVE GROUND _____ FEET.

Description	Size	Length	Quantity	Unit Price	Total Price
EXCAVATION	_____	_____	_____	_____	_____
CONCRETE	_____	_____	_____	_____	_____
BLOCKS	_____	_____	_____	_____	_____
CEMENT	_____	_____	_____	_____	_____
BAGS	_____	_____	_____	_____	_____
SAND	_____	_____	_____	_____	_____
CUBIC YARDS	_____	_____	_____	_____	_____
AGGREGATE	_____	_____	_____	_____	_____
CUBIC YARDS	_____	_____	_____	_____	_____
REINFORCEMENT	_____	_____	_____	_____	_____
STEEL	_____	_____	_____	_____	_____
BINDING WIRE	_____	_____	_____	_____	_____
ANCHOR BOLTS	_____	_____	_____	_____	_____

19. RETROFIT FLOOR? YES _____ NO _____

Description	Size	Length	Quantity	Unit Price	Total Price
FLOOR	_____	_____	_____	_____	_____
STEEL	_____	_____	_____	_____	_____
BOARDS	_____	_____	_____	_____	_____
NAILS	_____	_____	_____	_____	_____

Project Estimate Form

Page 4

20. RETROFIT WALLS? YES _____ NO _____

STUDS. SIZE: _____ LENGTH _____ QUANTITY _____

SIDING SIZE: _____ LENGTH _____ QUANTITY _____

NAILS QUANTITY _____

21. ANY OTHER MATERIALS NEEDED FOR RETROFITTING ?

YES _____ NO _____

EXPLAIN AND LIST QUANTITY _____

ESTIMATOR'S SIGNATURE _____ DATE _____

Do not write beyond this line

FOR OFFICIAL USE ONLY

COMMENTS REVIEW COMMITTEE _____

AMOUNT RECOMMENDED _____

CHECKED BY: _____ APPROVED BY _____

DATE: _____ DATE _____

Appendix E.
Loan Decision Form

LOAN DECISION FORM

NAME OF CLIENT. _____ APPL NO. _____

DATE. _____

ADDRESS. _____ TEL NO: (H) _____

_____ (C) _____

SEX: M/F _____ LOCATION: (Rural/Urban) _____

AMOUNT REQUESTED: \$ _____ AMOUNT RECOMMENDED: \$ _____

CONDITIONS: _____ INT RATE: _____
_____ TERM. _____

COMMENTS BY PROJECT OFFICER & ESTIMATOR

SIGNATURE: _____ DATE: _____

DECISION - Executive Director/ or Credit Committee Chairman.

SIGNATURE

DATE

Appendix G.
Minimum Standards Checklist

**MINIMUM STANDARDS FOR CONSTRUCTION/RETROFITTING HOMES TO
WITHSTAND HURRICANE WINDS UP TO 130 MPH (CLASS III)**

A. Foundation:

1. Solid cement/concrete pillars firmly embedded 18 inches in ground with ½" steel reinforcement bar extending 12-14 inches (300mm - 350mm) above foundation
or
2. Wooden pillars (6"x 6" minimum or 8" diameter) treated lumber, sunk more than 4 feet into the ground

B. Walls:

- 1 Wall plate/sill attached to cement foundation/pillars by min. 12 cm anchor bolts
or
2. Wall plate/still attached to wooden pillars by straps and nails
3. Floor joists toe-nailed to wall plate
4. Wall uprights (studs) fixed to sill and top wall plate with hurricane straps
5. Wall uprights located at 2' 0" centers
6. Double studs around doors and windows, cross braces at corners

C. Roof:

- 1 Hip or gable shaped roof with at least a 22° - 30° degree slope.
- 2 Overhang NTE 8" unenclosed, or 18" enclosed
- 3 Ventilation installed in gable ends facing away from the hurricane winds
- 4 Rafters attached to wall plate with twisted metal straps
- 5 Rafters located at centers NTE 2' 0"
- 6 Every second set of rafters connected by collar ties beneath the ridge board
- 7 Cross laths (purlins) located at centers NTE 2' 0"
- 8 Galvanized sheets of ideally 24 gauge and no thinner than 26 gauge.
- 9 Galvanized sheets to overlap longitudinally at least one complete corrugation, and laterally 6"-8".
- 10 Galvanized sheets nailed at top of every corrugation at eave and ridge board and every second corrugation on lath/purlins
- 11 Ridge is capped and nailed at every corrugation
- 12 Dome head galvanized nails or washered bolts used for roofing
- 13 Patio/veranda roof is separate from house roof

D. Windows/Doors

1. Shutters made and attached for rapid closing
or
 2. Shutters pre-made and stored to be nailed in place before storm strikes
 3. Family trained to either keep all entrances closed throughout storm period and/or open entrances on opposites sides of house to allow air pressure to neutralize.
-

Summary

Building meets all minimum hurricane resistance standards of Caribbean Disaster Mitigation Program

(Signature)

(Date)

Building fails to meet minimum hurricane resistance standards of Caribbean Disaster Mitigation Program. The following items must be completed in order to qualify for final loan disbursement.

- 1)
- 2)
- 3)
- etc..

(Signature) _____

(date)

Appendix H.

Easy Guide Checklist for Progressively Retrofitting Modest Homes

EASY-GUIDE CHECKLIST

PROGRESSIVELY UPGRADING FOR HURRICANE RESISTANCE HOMES OF LOWER INCOME FAMILIES OF THE EASTERN CARIBBEAN

Premises:

- 1) The families owning these properties have a modest income, desire to do home improvements and will need to be guided as to the value and importance of including hurricane resistance measures in their home improvements plans
- 2) Any hurricane resistance measures included will need to be folded in under larger home improvements the family desires.
- 3) Families may have to do both their home improvements and hurricane resistance retrofitting in progressive stages, for they may not have enough funds to complete the entire project at one time.

Priorities:

When a complete retrofitting project cannot be financed then the priorities come in this order:

- 1) Strengthening and tying down the roof as much as possible since heavy rains and winds are perennial. If the roof fails, whether in hurricane or regular storms, all the other home improvements will be damaged and possibly wasted
 - replace any rotten roofing sheets and/or rafters
 - adding extra nails with dome heads in corrugated sheeting
 - eliminate overhang in excess of 18" (horizontal distance) enclosed or 8" unenclosed.
 - insert extra lath/purlins and nail sheeting to the laths
 - metal strap roof rafters to wall plate and ridge beam
 - place collar ties on every second set of rafters
- 2) Establishing a firm footing/foundation and tying the house to this solid foundation. If a house shifts off of its footings during a storm there will be great water leakage and damage to other home improvements
 - embed four or more concrete/wood pillars to strengthen footing
 - bolt/strap floor sill to new and old footings/foundations

- 3) Strengthening the walls at the corners, around doors and windows and where they are attached to floor sill and wall plate
 - metal strap wall studs to floor sill and wall plate
 - double studs around doors and windows and cross braces in corners
 - add extra studs if currently located wider than 2 feet
 - 4) Strengthen doors and windows to withstand winds/construct shutters.
 - teach family how to completely close and/or leave open opposite entrances to neutralize air pressure in hurricane force winds.
 - construct prefit nail-on shutters
 - 5) Remainder of minimum standards checklist and/or additional amounts of each of the above (i.e. six footing pillars instead of four; more metal straps, additional studs etc.)
 - 6) Other hazards — think of flooding, landslides, etc. when selecting or evaluating a site.
-

N.B.

All of the above skills can be taught to any family member that has a working knowledge of hammer, saw, measuring tape and nails. Therefore, a family with severely limited resources can save cost by doing much of the work themselves under the watchful eye of a technical supervisor.

Each of these steps can be done progressively as and when the family has the funds to buy the supplies. A family may choose to repair and strengthen the roof in the first year, then construct a new kitchen (with some hurricane resistance included) in the second year. In subsequent years they can do the footings, the wall strengthening. Each step will make the house stronger and more hurricane resistance. The risk is that a strong hurricane will hit midway in the project and destroy the repairs made before the entire house is fully strengthened.