



# IMPLEMENTATION FRAMEWORK FOR THE RESETTLEMENT OF LANDSLIDE AND FLOOD VICTIMS



NATIONAL BUILDING RESEARCH ORGANISATION  
MINISTRY OF DISASTER MANAGEMENT

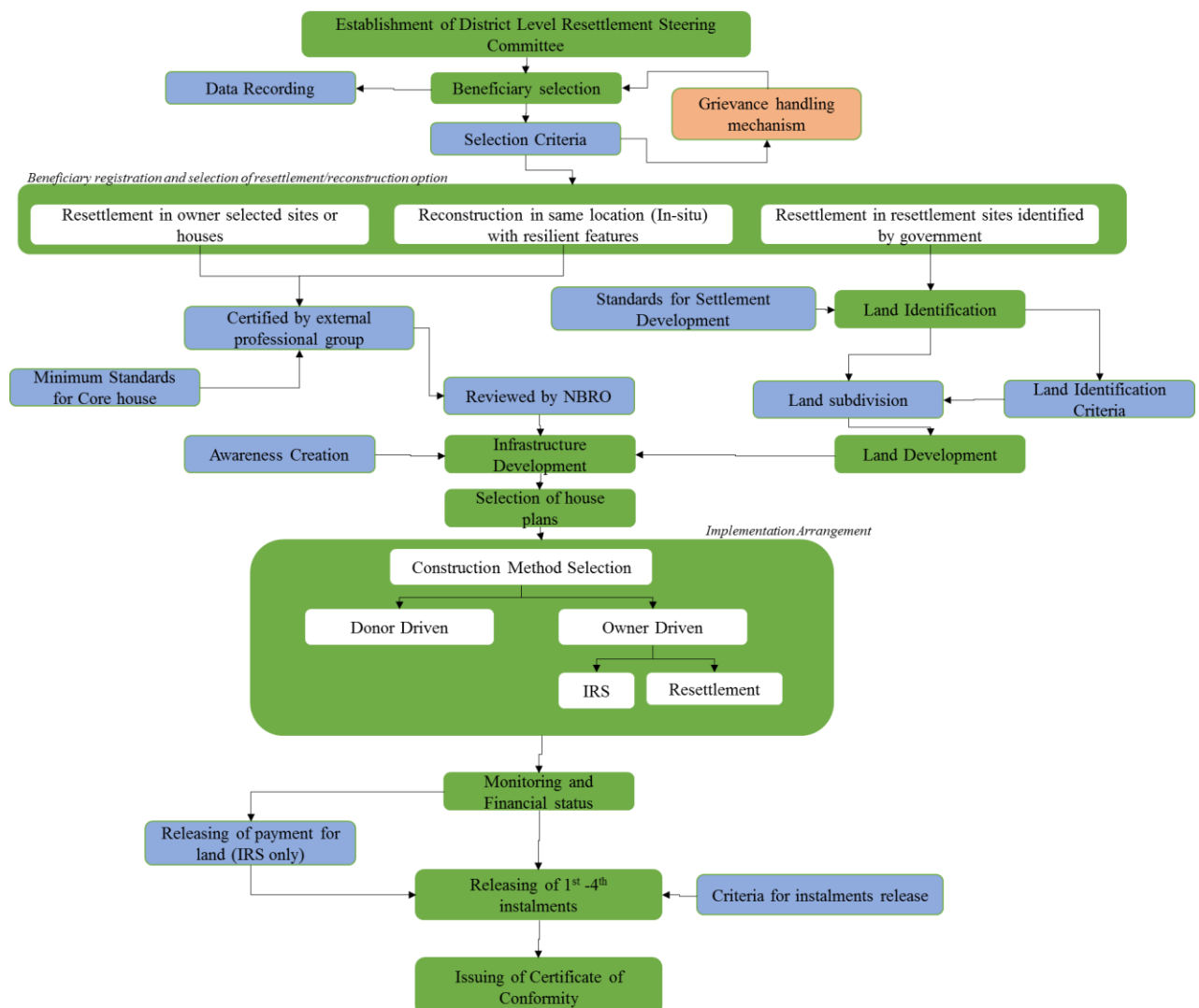
## Implementation Framework for the Resettlement Programme in Kalutara, Galle, Ratnapura and Matara

### Introduction

In May 2017, central and southern half of Sri Lanka was affected by severe landslides and floods which took nearly 203 lives and another 90 went missing. Nearly 500,000 people were affected. As a result, the Government of Sri Lanka has announced plan to resettle the families living in hazard prone areas of Ratnapura, Kalutara, Galle and Matara Districts.

NBRO has prepared resilient house plans which are adaptive to landslides and floods. These plans have been approved by the Parliament and the Cabinet of Ministers. Subsequently, the District Secretaries of Ratnapura, Kalutara, Galle and Matara have been advised to initiate the resettlement process. This document provides a guideline to the resettlement programme for the information of the District Secretaries and other relevant officers, who are involved in the resettlement process to ensure successful implementation.

The following steps are to be followed during the resettlement process.



Step 01: Establishment of district level resettlement steering committee

The resettlement program will be implemented through a Steering Committee established under the leadership of the District Secretaries of the respective districts with the assistance of Divisional Secretaries and other stakeholder institutions. The following table shows the institutions and their responsibilities in the resettlement process.

| Institution  | Responsibility  |
|--|---|
| District Secretariat   | Coordinating overall programme.   |
| Divisional Secretariat   | Coordinating divisional level programme<br>Beneficiary identification and selection.<br>Land identification and acquisition for resettlement.   |
| District Disaster Management Coordination Unit                                     | Assisting District Secretary in coordinating overall programme  |
| National Building Research Organisation (NBRO)                                     | Providing recommendations for beneficiary selection, land selection, land development.<br>Designing the house plan and preparing the BOQ.<br>Providing technical advice for land sub division, layout planning and house plan selection.<br>Monitoring and providing necessary technical inputs for land development and house construction.<br>Providing technical assistance for overall programme. |
| Irrigation Department (ID)   | Providing recommendations for beneficiary selection, land selection, land development, house plan designing for flood prone areas.  |
| Urban Development Authority (UDA)/<br>National Physical Planning Department (NPPD) | Providing recommendations for land selection, land development and check the compatibility with current development plans.<br>Assisting in developing layout plans.<br>Developing the land use regulations for new settlements.   |
| National Housing Development Authority (NHDA)                                      | Guiding and supervising housing construction.   |
| Survey Department  | Surveying and sub dividing the selected land for resettlement according to NBRO guidelines.   |
| Land Use Policy Planning Department (LUPPD)  | Issuing recommendations for land selection, land development.<br>Preparation of land use management plans for resettlement sites.   |
| National Water Supply and Drainage Board (NWSDB)                                   | Preparing necessary designs, estimations, implementation plans including financial plans to provide infrastructure requirement.   |
| Ceylon Electricity Board (CEB)   |   |
| Road Development Authority (RDA)   |   |

| Institution  | Responsibility  |
|--|---|
| Local Authority  | Providing approval for building plans.<br>Providing health, water and sanitation facilities to the settlements. |
| Provincial Council   | Evaluating the physical as well as socioeconomic factors relevant to resettlement.                              |
| ***District Secretary has the right to invite other state and private institutions to the steering committee depending on the requirement. |   |

## Step 02: Beneficiary selection

The houses will be delivered under the following concept:

- A “House to House” concept will be adopted. It means that only the owners of the houses which were affected during the disaster will get the houses irrespective of the number of families who lived in those houses.

Beneficiaries will be selected by the relevant Divisional Secretaries (DS) based on the following criteria:

- Directly affected households from the landslide and flood events of May 2017
- Indirectly affected households which were identified as high risk by NBRO and ID following the extreme rainfall in May 2017.

### Beneficiary categorization for resettlement and reconstruction

1. Flood and landslide affected houses which are located on the “Prohibited Zones” of the flood plains and landslides will be considered for resettlement.
2. Flood affected houses which are located on the “Restricted Zones” and “Warning Zones” of the flood plains will be considered for reconstruction with resilient features
3. Identified landslide high risk houses which are located on the “Restricted Zones” and “Warning Zones” will be considered for reconstruction with resilient features

#### *Definitions of Zones:*

Prohibited Zones - Reservations declared by any government agencies such as Irrigation Department, NBRO, SLRDC, etc.

Restricted Zones and “Warning Zones” – Buffer zones identified by Irrigation Department and NBRO

### Step 03: Grievance handling mechanism

District Secretary should establish a grievance handling committee consisting of minimum three members to review the grievances of the affected community.

### Step 04: Beneficiary registration and selection of resettlement/reconstruction option

Once the beneficiaries are identified, Divisional Secretaries should register them with their details and get their consent on the type of rehabilitation option that they are willing to select.

Awareness programmes will be conducted to make the beneficiaries aware of following rehabilitation options:

- i. Resettlement in owner selected sites or houses
- ii. Resettlement in resettlement sites identified by government
- iii. Reconstruction in same location (In-situ) with resilient features

### Minimum standards of the resettlement programme

#### Minimum standard for core house

- Minimum floor area of 650 sq. ft.
- Resilient foundation and a superstructure (As directed by NBRO)
- Two bedrooms
- A kitchen
- A permanent roof
- A water seal toilet and a septic tank
- Availability of electricity and water

#### Standards for settlement development

| Category       | Category 01  | Category 02  | Category 03   |
|----------------|--|--|---|
| No of Units    | Less than 25   | Up to 50   | More than 50  |
| Permitted uses | <ul style="list-style-type: none"> <li>• Single detached houses</li> <li>• Children park</li> <li>• Corner shop</li> </ul> | <ul style="list-style-type: none"> <li>• Single detached houses, Semidetached, low rise (G+3)</li> <li>• Public open spaces</li> <li>• Corner shop</li> <li>• Child care center</li> <li>• Place of worship</li> </ul> | <ul style="list-style-type: none"> <li>• Single detached houses, Semidetached houses, Medium rise houses (G+7)</li> <li>• Parks, playground and recreational facilities</li> <li>• Childcare center, Education center</li> <li>• Clinic and pharmacy</li> <li>• Public transport</li> </ul> |

## Step 05: Identification of land

Lands will be identified by the DSDs based on the following criteria;

- Less than 2.5 km to town centers
- Less than 0.5 km to Roads
- UDA planning and building regulations and other guidelines available in the development plan
- Access to water and electricity

A land selection committee will be established including professionals from the institutions as shown on the table below. The committee will evaluate the identified lands and select the suitable lands for resettlement.

### Composition of Land Selection Committee

| Institutions             | Professionals                                | Functions   |
|--------------------------|--|---|
| DSD                      | Land acquisition officer, LUPPD officer      | To demarcate the land area<br>Preparation of Land Use Management Plan   |
| NBRO                     | Geologist, Town Planner, Architect, Engineer | To check the disaster risk of the new site for possible hazards<br>To check the access to the social and physical infrastructure<br>To check the environmental compatibility of the site<br>To prepare disaster resilient layout plan for the settlement<br>To check the overall suitability of the site in terms of human settlement |
| Water Board              | Hydro geologist                              | To confirm the availability of water resources/ access to the water   |
| Electricity Board        | Engineer/Technical Officer                   | To confirm the access to electricity  |
| RDA/PRDA/Local Authority | Engineer/Technical Officer                   | To confirm the road access to the new site  |
| Survey Department        | Surveyor                                     | To prepare the layout plan/ sub division plan based on NBRO recommendation.   |

#### Step 06: Awareness creation

The following awareness programmes should be conducted by the District Disaster Management Coordination Unit with the assistance of NBRO.

- Awareness programme on “Sub division in hilly areas” for surveyors by NBRO
- Awareness programme on “Land development” for excavator operators and technical officers of the DSDs by NBRO
- Awareness programme on “Land Preparation and House Construction” for beneficiaries and technical officers of the DSDs by NBRO

#### Step 07: Land development

Land development refers to activities such as sub division, construction of retaining structures, and provision of infrastructure and drainage development.

Therefore, the following factors should be considered during land development:

- It is recommended to subdivide the land by considering the slope angle. Minimum plot size should be 10 perches. Land should be developed considering its slope angle. Lands with slope angle less than 8% ( $5^{\circ}$ ) are suitable for new settlements. NBRO recommendation is essential for the lands with slope angle between 8%- 60%. Lands in which slope angle is more than 60% are prohibited for any constructions.
- It is recommended to not to carry developments in steep slopes, natural valleys, vertical cuts and other unstable landforms.
- Access routes should be designed parallel to the contour lines and sufficient culverts and drainage should be included to every blocked valleys.
- It is not recommended to block the natural valleys and natural drainage during the blocking out. Drains should be located at the edge of the boundary.
- Surface drainage systems should be designed by considering the terrain, rainfall intensity and catchment area. Meanwhile, plants and construction that may block the drainage should not be encouraged.
- Catch pit size should be designed according to surface drainage capacity. Soil erosion and water infiltration should be minimized.
- It is required that the longest side of the land should be located on the longest slope during the land subdivision process.
- It is required to get the approval from NBRO after blocking out/ subdivision of the land.

#### Step 08: Infrastructure provision

Utility facilities such as water and electricity should be provided to each house. Further, other social amenities mentioned in the step-4 should be considered.

## Step 09: Approval of house plans

### 9.1. House plans for IRS and owner driven housing construction

House plans designed by NBRO and approved by the Cabinet are recommended for housing construction. Beneficiaries also could have their own house plans with the approval of NBRO.

### 9.2. House plans for donor housing construction

Donors can use the house plans designed by NBRO.

If a donor is willing to construct houses on their own plan, those plans should comply with the minimum housing standard of the programme.

Donors' house plans should obtain NBRO approval prior to the implementation.

### 9.3. House Plan for Resilient Settlements

House plans for compact settlements in resilient townships will be developed by NBRO with the support of UDA. These plans will incorporate resilient features for possible hazards. Building regulations and building codes for the resilient townships will be introduced by UDA and NBRO.

### 9.4. House plans for reconstruction of houses in same location

Flood resilient house plans designed by NBRO are recommended for the beneficiaries who have selected to reconstruct their houses in the same locations.

### 9.5. House plan recommendation

NBRO will recommend suitable house plans for each land plot based on topography, orientation of the land plot, access and beneficiary willingness.

## Step 10: Construction of Houses

### 10.1. Construction of houses in owner selected resettlement sites

This resettlement option involves finding a suitable land by the beneficiary to construct a house by themselves. Cash grant for the land and house will be provided based on the following;

- Land clearance from NBRO, if it is located on a landslide prone district.
- Land clearance from Irrigation Department, if it is located on a flood prone area.
- Preliminary Planning Clearance from UDA, if it is located on a UDA declared area.
- NBRO and Local authority approvals for selected house plan.

All the selected beneficiaries of the programme will be assisted with Rs. 1.2 Mn each for house construction released in 04 installments based on the stage of completion. Additionally, Rs. 0.4 Mn will be released as a lump sum to purchase a land.



### 10.2. Financial assistance for resettlement in owner selected houses

This involves finding and purchasing a new/pre-existing house by a beneficiary. A beneficiary will be assisted with Rs. 1.6 Mn to purchase the identified and approved new/pre-existing house. District Secretary should establish a mechanism to assess the technical, legal and social feasibility of identified new/pre-existing houses based on the followings;

- Deeds, to ensure that there are no legal issues or claims (mortgages, inheritances, etc.),
- Valuation report, to verify the market value of selected house,
- The structural quality of houses, to ensure that they are safe and habitable. The building permits should be reviewed and the NBRO should be consulted regarding hazard and risk factors. Additionally, in situ inspections should be made,
- Urban development, to verify compliance with rules and, in particular, compatibility with the land-use management plan and regulations issued by the UDA, as well as the availability of public utilities; Available social services (education and health), recreational infrastructure and transportation.

### 10.3. Construction of houses in resettlement sites identified by government

This resettlement option involves the construction of houses in lands selected by the government. All the selected beneficiaries of the programme will be assisted with Rs. 1.2 Mn for house construction in 04 installments, based on the stage of completion.

#### Proposed funding release plan for government financial assistance

| Installment | Stage  | Installment Amount |
|-------------|--|--------------------|
| 1           | Land Preparation, Excavation and Completion of foundation                        | 150,000.00         |
| 2           | Completion up to roof level and supply of timber                                 | 300,000.00         |
| 3           | Completion of roof   | 450,000.00         |
| 4           | Completion of Core-house – Doors and Windows, Plastering, Finishing and Painting | 300,000.00         |
| Total       |  | 1,200,000.00       |

*Note: It is recommended to retain Rs. 25,000 of the 4th installment and release after obtaining the CoC.*

#### 10.4. Financial assistance for reconstruction of houses in same location

The selected beneficiaries for “Reconstruction in same location (In-situ) with resilient features” have two financial assistance options to be selected:

- i. Compensation from the National Insurance Trust Fund (NITF)
- ii. Government Financial assistance of Rs.1.2 Mn

The above options should be selected based on the following situations:

| Situation  | Option                                       |
|--|--|
| Affected house is located on a “Restricted Zone” | Government Financial Assistance of Rs.1.2 Mn |
| Affected house is located on a “Warning Zone”    | National Insurance Trust Fund (NITF)         |

OR

| Situation                            | Option                                       |
|--------------------------------------|--|
| Damage to the house is More than 40% | Government Financial Assistance of Rs.1.2 Mn |
| Damage to the house is less than 40% | National Insurance Trust Fund (NITF)         |

#### Step 11: Monitoring and releasing of funds

Monitoring of housing construction and recommendation for releasing of funds will be assigned to technical officers of the respective Divisional Secretaries.

The appointed TOs of each DSD are responsible for:

- Inspection of housing construction progress and recommending for fund release
- Provision of technical assistance for housing construction with the support of Resettlement Unit of NBRO
- Monitoring of construction progress and sharing data
- Collaborating with NBRO to conduct training and awareness for beneficiaries in order to successfully complete the housing construction

#### Releasing of Installments:

- Releasing of payment for land (For IRS only) – The sum of Rs. 400,000.00 will be released for the individuals who have selected their own land for resettlement house construction. Clearance from the respective Divisional Secretariat Division on ownership and NBRO approval are needed on suitability of land.
- Releasing of 1<sup>st</sup> installment – The sum of Rs. 150,000.00 will be released for land preparation, foundation excavation and laying of the foundation up to the plinth beam level. At this stage, the following components will be checked.
  - A house plan approved by relevant local authority and NBRO, should be presented before releasing the installment.

*Checklist 1 will be used by the TO for the release of the 1<sup>st</sup> installment. (Annexure 01)*

- Releasing of 2<sup>nd</sup> installment – Sum of Rs. 300,000.00 will be released for completion up to roof level. At this stage, the following components will be checked for approval.
- Completion of NBRO guidelines on land preparation and excavation
  - Setting out of the house
  - Amount of excavation according to the structural details
  - Material quality
  - Standard of Concrete
  - RCC column and Footing size
  - Reinforcement bars' diameters and quality

*Checklist 2 will be used by the TO for the release of the 2<sup>nd</sup> installment. (Annexure 02)*

- Releasing of 3<sup>rd</sup> installment – Sum of Rs. 450,000.00 will be released for the completion of roof, door and window frames. At this stage, the following components should be completed.
- Plinth Beam
  - Sill Beam
  - Columns Lintel level ring beam
  - Cement block size and quality
  - Overall construction quality

*Checklist 3 will be used by the TO for the release of the 3<sup>rd</sup> installment. (Annexure 03)*

- Releasing of 4<sup>th</sup> installment – Sum of Rs. 300,000.00 (less Rs. 25,000 for CoC) will be released for the completion of the core house. Following are expected to be included in the core house.
- Completion of two bed rooms, kitchen, toilet, minimum of 650 sq.ft., painting, plastering, electrical work, etc.
  - The use of non-asbestos roofing sheet will be promoted and connectivity within roof components and then to the house structure will be checked.

*Checklist 4 will be used by the TO for the release of the 4<sup>th</sup> installment of Rs. 300,000 (less Rs. 25,000 CoC). (Annexure 04)*

- Issuing of Certificate of Conformity – Following components will be checked at this final stage.
- Door and window sizes and quality
  - Plastering quality
  - Paint type and quality
  - Finishing material quality
  - Overall completion of the core-house

*Checklist 5 will be used by the TO for the release of the final 25,000 installement. (Annexure 05)*

Home Owner Driven Housing Construction Programme  
Checklist for Release of 1<sup>st</sup> Installment of Government Cash Grant

## 1.0 General Information

|                      |  |
|----------------------|--|
| DSD                  |  |
| GN                   |  |
| Beneficiary Reg. No. |  |
| Name                 |  |
| Address              |  |
| Date                 |  |

## 2.0 Land details:

If the land is a RS Land (Provided by the government):

- I. Name of the lands:
- II. Block No:
- III. Recommended type plan:

If the land is an IRS Land (Individually Selected):

- I. Grama Niladari Division:
- II. Name of the land/Deed No.:
- III. Ownership:

|   | Description               | Physical Condition |              |
|---|---------------------------|--------------------|--------------|
|   |                           | Approved           | Not Approved |
| 1 | Approval for land by NBRO |                    |              |

## 3.0 Core House details

If the house is a NBRO provided type plan, plan no:

If the house plan is an owner designed plan, please fill the bow table:

| Core Features | "✓" if available | Area (Square feet) |         |         |
|---------------|------------------|--------------------|---------|---------|
|               |                  | Room 01            | Room 02 | Room 03 |
| Bedroom       |                  |                    |         |         |
| Living room   |                  |                    |         |         |
| Kitchen       |                  |                    |         |         |
| Toilet        |                  |                    |         |         |

Approvals for above plan:

|   | Description                     | Physical Condition |              |
|---|---------------------------------|--------------------|--------------|
|   |                                 | Approved           | Not Approved |
| 1 | Approval for house plan by NBRO |                    |              |
| 3 | Approval from Local Authority   |                    |              |

|  |  |
|--|--|
| Eligible to receive the 1 <sup>st</sup> installment? |  |
| If not, reason?                                      |  |

|                      | Name | Signature |
|----------------------|------|-----------|
| Technical Officer    |      |           |
| Coordinating Officer |      |           |

Home Owner Driven Housing Construction Programme  
Checklist for Release of 2<sup>nd</sup> Installment of Government Cash Grant

1.0 General Information

|                       |                      |
|-----------------------|----------------------|
| District              |                      |
| DSD                   |                      |
| GN                    |                      |
| Beneficiary Reg. No.  |                      |
| Name                  |                      |
| Address               |                      |
| Ownership of the land |                      |
| House plan            | NBRO/ Own House plan |
| Date                  |                      |

2.0 Core House (✓ if available)

|             |  |
|-------------|--|
| Bedroom     |  |
| Living room |  |
| Kitchen     |  |
| Toilet      |  |

3.0 Progress of Construction

|    | Description   | Physical Condition |                  |
|----|---|--------------------|------------------|
|    |   | Satisfactory       | Not Satisfactory |
| 1  | Following of NBRO guidelines in land preparation and excavation |                    |                  |
| 2  | Land/ Soil Condition  |                    |                  |
| 3  | Foundation  |                    |                  |
| 4  | Setting out   |                    |                  |
| 5  | Amount of Excavation according to structural plans provided     |                    |                  |
| 6  | Footing size and steel bar diameters                            |                    |                  |
| 7  | FFL height from ground level                                    |                    |                  |
| 8  | No errors in the structure                                      |                    |                  |
| 9  | Quality of site and material                                    |                    |                  |
| 10 | Have completed up to the required level                         |                    |                  |

|   |  |
|---|--|
| Eligible to receive the next installment? |  |
| If not, reason?                           |  |

|                      |      |           |
|----------------------|------|-----------|
|                      | Name | Signature |
| Technical Officer    |      |           |
| Coordinating Officer |      |           |

Home Owner Driven Housing Construction Programme  
Checklist for Release of 3<sup>rd</sup> Installment of Government Cash Grant

1.0 General Information

|                       |                      |
|-----------------------|----------------------|
| District              |                      |
| DSD                   |                      |
| GN                    |                      |
| Beneficiary Reg. No.  |                      |
| Name                  |                      |
| Address               |                      |
| Ownership of the land |                      |
| House plan            | NBRO/ Own House plan |
| Date                  |                      |

2.0 Core House (✓ if available)

|             |  |
|-------------|--|
| Bedroom     |  |
| Living room |  |
| Kitchen     |  |
| Toilet      |  |

3.0 Progress of Construction

|   | Description                             | Physical Condition |                  |
|---|---|--------------------|------------------|
|   |   | Satisfactory       | Not Satisfactory |
| 1 | Plinth beam                             |                    |                  |
| 2 | Sill beam                               |                    |                  |
| 3 | Columns                                 |                    |                  |
| 4 | Lintel level ring beam                  |                    |                  |
| 5 | Cement block size and quality           |                    |                  |
| 6 | Overall construction work               |                    |                  |
| 7 | Have completed up to the required level |                    |                  |

|   |  |
|---|--|
| Eligible to receive the next installment? |  |
| If not, reason?                           |  |

|                      | Name | Signature |
|----------------------|------|-----------|
| Technical Officer    |      |           |
| Coordinating Officer |      |           |

Home Owner Driven Housing Construction Programme  
Checklist for Release of 4<sup>th</sup> Installment of Government Cash Grant

1.0 General Information

|                       |                      |
|-----------------------|----------------------|
| District              |                      |
| DSD                   |                      |
| GN                    |                      |
| Beneficiary Reg. No.  |                      |
| Name                  |                      |
| Address               |                      |
| Ownership of the land |                      |
| House plan            | NBRO/ Own House plan |
| Date                  |                      |

2.0 Core House (✓ if available)

|             |  |
|-------------|--|
| Bedroom     |  |
| Living room |  |
| Kitchen     |  |
| Toilet      |  |

3.0 Progress of Construction

|   | Description  | Physical Condition |                  |
|---|--|--------------------|------------------|
|   |  | Satisfactory       | Not Satisfactory |
| 1 | Timber quality   |                    |                  |
| 2 | Non-asbestos roofing sheet                                     |                    |                  |
| 3 | Connectivity within roof components and to the house structure |                    |                  |
| 4 | Have completed up to the required level                        |                    |                  |

|   |  |
|---|--|
| Eligible to receive the next installment? |  |
| If not, reason?                           |  |

|                      | Name | Signature |
|----------------------|------|-----------|
| Technical Officer    |      |           |
| Coordinating Officer |      |           |

Home Owner Driven Housing Construction Programme  
Checklist for Release of Certificate of Conformity

1.0 General Information

|                       |                      |
|-----------------------|----------------------|
| District              |                      |
| DSD                   |                      |
| GN                    |                      |
| Beneficiary Reg. No.  |                      |
| Name                  |                      |
| Address               |                      |
| Ownership of the land |                      |
| House plan            | NBRO/ Own House plan |
| Date                  |                      |

2.0 Core House (✓ if available)

|             |  |
|-------------|--|
| Bedroom     |  |
| Living room |  |
| Kitchen     |  |
| Toilet      |  |

3.0 Progress of Construction

|   | Description                       | Physical Condition |                  |
|---|-----------------------------------|--------------------|------------------|
|   |                                   | Satisfactory       | Not Satisfactory |
| 1 | Door and window sizes and quality |                    |                  |
| 2 | Plastering quality                |                    |                  |
| 3 | Paint type and quality            |                    |                  |
| 4 | Floor finishing                   |                    |                  |
| 5 | Finishing material quality        |                    |                  |
| 6 | Water, electricity supply         |                    |                  |
| 7 | Overall quality of work           |                    |                  |

|  |  |
|--|--|
| Eligible to receive Certificate of Conformity? |  |
| If not, reason?                                |  |

|                      | Name | Signature |
|----------------------|------|-----------|
| Technical Officer    |      |           |
| Coordinating Officer |      |           |