

DATA 3 : FLOOD DAMAGE SURVEY RESULTS

**THE STUDY ON STORM WATER DRAINAGE PLAN
FOR THE COLOMBO METROPOLITAN REGION
IN
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**

FINAL REPORT

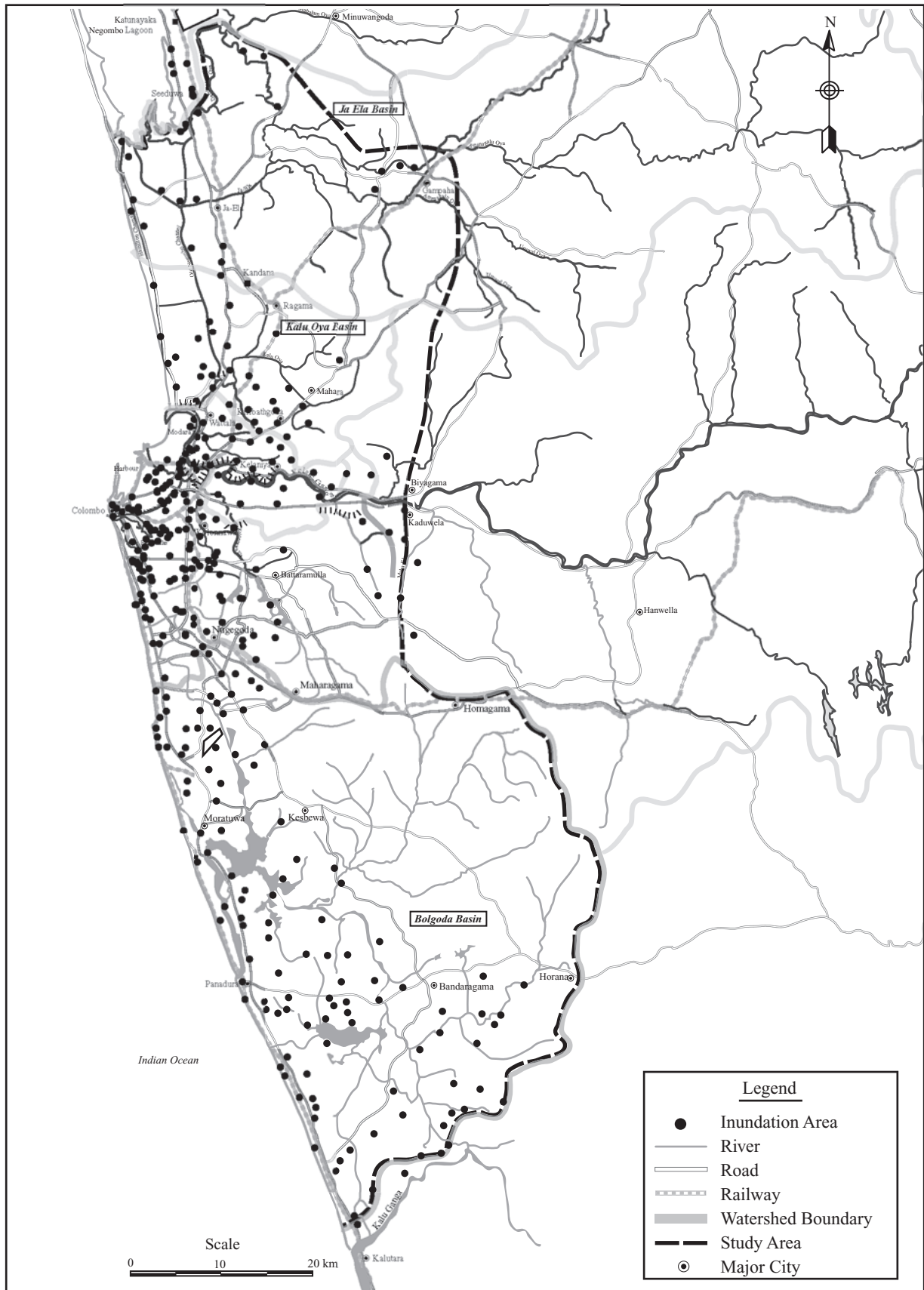
VOLUME V : DATA BOOK

DATA 3 : FLOOD DAMAGE SURVEY RESULTS

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*The Study on Storm Water Drainage Plan
for the Colombo Metropolitan Region
in the Democratic Socialist Republic of Sri Lanka*
JAPAN INTERNATIONAL COOPERATION AGENCY

1. Locations of Identified Inundation Areas

2. Questionnaires

Survey Record

| | |
|-------------------------|--|
| Survey Sheet Serial No. | |
| Date | |
| Surveyor | |

Location

| | |
|------------------------|--|
| Area No. | |
| District | |
| Division | |
| MC/UC/PS | |
| Name of Area | |
| Interview Location No. | |

Observations

| | |
|------------------------------|--|
| Classification | <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Business <input type="checkbox"/> Industry <input type="checkbox"/> Agriculture <input type="checkbox"/> Other () |
| Housing/Building | Density of Housing/Building <input type="checkbox"/> Densely built-up with limited open lands <input type="checkbox"/> Moderately built-up with open lands <input type="checkbox"/> Scattered housing/building Prevailing Houses/Buildings <input type="checkbox"/> Temporary houses made of timber (shanty) <input type="checkbox"/> Permanent houses made of timber <input type="checkbox"/> Permanent houses of single story made of brick <input type="checkbox"/> Permanent houses/buildings of two or more floors made of brick and concrete |
| Conditions of Infrastructure | Road <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor Drainage <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor Wastewater Disposal <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor Garbage Collection <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor Canal Maintenance <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor |

Interviewee

| |
|--|
| <input type="checkbox"/> Household <input type="checkbox"/> Shop <input type="checkbox"/> Factory <input type="checkbox"/> Office |
|--|

Basic Information**Questions for Households**

| | | | | |
|--|-------|-------|---------------|--------------------------|
| 1. Family | | | | |
| | (Sex) | (Age) | (Occupation)* | (Interviewee) |
| (1) | _____ | _____ | _____ | <input type="checkbox"/> |
| (2) | _____ | _____ | _____ | <input type="checkbox"/> |
| (3) | _____ | _____ | _____ | <input type="checkbox"/> |
| (4) | _____ | _____ | _____ | <input type="checkbox"/> |
| (5) | _____ | _____ | _____ | <input type="checkbox"/> |
| (6) | _____ | _____ | _____ | <input type="checkbox"/> |
| (7) | _____ | _____ | _____ | <input type="checkbox"/> |
| (8) | _____ | _____ | _____ | <input type="checkbox"/> |
| (9) | _____ | _____ | _____ | <input type="checkbox"/> |
| (10) | _____ | _____ | _____ | <input type="checkbox"/> |
| Note: * Occupation indicated by number: 1- Government Employee 2- Company Employee 3- Wage Worker 4- Self-employed 5- No Occupation 6- Student 7- Child below School Age | | | | |
| 2. Education Level of Interviewee | | | | |
| <input type="checkbox"/> No formal education <input type="checkbox"/> Primary school <input type="checkbox"/> Junior high school <input type="checkbox"/> Senior high school <input type="checkbox"/> College <input type="checkbox"/> University | | | | |
| 3. Period of Living at Present House Location | | | | |
| _____ (years) | | | | |
| 4. Housing | | | | |
| Type of Housing: | | | | |
| <input type="checkbox"/> Temporary houses made of timber (shanty) | | | | |
| <input type="checkbox"/> Permanent houses made of timber | | | | |
| <input type="checkbox"/> Permanent houses of single story made of brick | | | | |
| <input type="checkbox"/> Permanent houses of two or more floors made of brick and concrete | | | | |
| Ownership: | | | | |
| <input type="checkbox"/> Owned by household <input type="checkbox"/> Rented house <input type="checkbox"/> Illegal house | | | | |
| 5. Household Income | | | | |
| Average Annual Income | | | | |
| Rp. _____ in a year | | | | |

Basic Information**Questions for Shops, Factories and Offices**

| |
|--|
| 1. Type of Business |
| 2. Period of Business at Present Location _____ (years) |
| 3. Number of Employees |
| 4. Sales Average Annual Sales Rp. _____ in a year |

Inundation**Questions for All Interviewee Categories**

| |
|---|
| 1. Frequency of Inundation Inundation outside house/building: <input type="checkbox"/> Less than 1 time in a year <input type="checkbox"/> More than 1 time in a year <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> Over 6 (_____ times) Inundation inside house/building: <input type="checkbox"/> Less than 1 time in a year <input type="checkbox"/> More than 1 time in a year <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> Over 6 (_____ times) |
| 2. Duration of Inundation Average Inundation: <input type="checkbox"/> Less than half day <input type="checkbox"/> Within a day <input type="checkbox"/> Within 2 days <input type="checkbox"/> More than 2 days (_____ days) Maximum Inundation: <input type="checkbox"/> Less than half day <input type="checkbox"/> Within a day <input type="checkbox"/> Within 2 days <input type="checkbox"/> More than 2 days (_____ days) |
| 3. Recent Inundation Event Average Inundation: _____ (month) _____ (year) Maximum Inundation: _____ (month) _____ (year) |

4. Damage and Impact due to Average Inundation

Damages:

- House/building severely damaged or collapsed
- Properties inside house/building deteriorated
- Properties outside house/building deteriorated
- Death of resident/employee
- Injury of resident/employee
- Infrastructures damaged and not functioning
- Public utilities damaged and out of service
- Others

()

Impacts by Damages:

- Decrease of salary due to absenteeism from work
- Decrease of commercial sales
- Decrease of factory production
- Decrease of public service levels
- Disease or sickness due to worsened sanitary conditions
- Others

()

5. Damage and Impact due to Maximum Inundation:

Damages:

- House/building severely damaged or collapsed
- Properties inside house/building deteriorated
- Properties outside house/building deteriorated
- Death of resident/employee
- Injury of resident/employee
- Infrastructures damaged and not functioning
- Public utilities damaged and out of service
- Others

()

Impacts by Damages

- Decrease of salary due to absenteeism from work
- Decrease of commercial sales
- Decrease of factory production
- Decrease of public service levels
- Disease or sickness due to worsened sanitary conditions
- Others

()

| |
|--|
| <p>6. Cause of Inundation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Overflow from principal canals <input type="checkbox"/> Drains insufficient <input type="checkbox"/> Poor maintenance for drains <input type="checkbox"/> Drains clogged by garbage dumping <input type="checkbox"/> Landfill along canals and lakes <input type="checkbox"/> Loss of woods, grasslands, paddy fields, and wetlands due to development <input type="checkbox"/> Others <p>()</p> |
|--|

Preparedness Activities against Inundation

Questions for All Interviewee Categories

| |
|---|
| <p>1. Existence of Organized Preparedness Activities against Inundation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Yes <ul style="list-style-type: none"> <input type="checkbox"/> Organized by people’s own initiative <input type="checkbox"/> Organized with assistance by : <ul style="list-style-type: none"> <input type="checkbox"/> Government and/or Local Authorities <input type="checkbox"/> Non-government Organizations <input type="checkbox"/> No <ul style="list-style-type: none"> <input type="checkbox"/> People’s individual efforts <input type="checkbox"/> No preparedness activities |
| <p>2. Type of Activities</p> <ul style="list-style-type: none"> <input type="checkbox"/> Construction of drains <input type="checkbox"/> Cleaning of drains <input type="checkbox"/> Sandbagging <input type="checkbox"/> Warning and evacuation <input type="checkbox"/> Others <p>()</p> |
| <p>3. Further Need of Activities</p> <ul style="list-style-type: none"> <input type="checkbox"/> Construction of drains <input type="checkbox"/> Cleaning of drains <input type="checkbox"/> Sandbagging <input type="checkbox"/> Warning and evacuation <input type="checkbox"/> Others <p>()</p> |

3. List of Questionnaire Survey Locations (1/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|-----------------------|---|
| 116 | Gampaha | Biyagama PS | Galpotha Junction Makola Road |
| 116 | Gampaha | Biyagama PS | Galpotha Junction Makola Road |
| 117 | Gampaha | Biyagama PS | Thalwatter Biyagama Road |
| 117 | Gampaha | Biyagama PS | Thalwatter Biyagama Road |
| 118 | Gampaha | Biyagama PS | Thalwatter Biyagama Road |
| 118 | Gampaha | Biyagama PS | Giyabada |
| 119 | Gampaha | Biyagama PS | Pattiwila 8.5 km |
| 119 | Gampaha | Biyagama PS | Pattiwila 8.5 km |
| 120 | Gampaha | Biyagama PS | Mabima 9 km |
| 120 | Gampaha | Biyagama PS | Bandarahena Road |
| 121 | Gampaha | Biyagama PS | Adiya Kumbura |
| 121 | Gampaha | Biyagama PS | Adiya Kumbura |
| 78 | Gampaha | Gampaha PS | Kirindiwita |
| 78 | Gampaha | Gampaha PS | Kirindiwita |
| 79 | Gampaha | Gampaha PS | Akarawita Gampola Road |
| 79 | Gampaha | Gampaha PS | Akarawita Gampola Road |
| 80 | Gampaha | Gampaha PS | Kotagedera to Uruwal Oya |
| 80 | Gampaha | Gampaha PS | Kotagedera to Uruwal Oya |
| 81 | Gampaha | Gampaha PS | Balummahara Junction |
| 81 | Gampaha | Gampaha PS | Balummahara Junction |
| 76 | Gampaha | Ja Ela PS | Kotugoda - Ja Ela |
| 76 | Gampaha | Ja Ela PS | Kotugoda - Ja Ela |
| 82 | Gampaha | Ja Ela PS | Relaulla - Ja Ela |
| 82 | Gampaha | Ja Ela PS | Kandana - Kapuwatta |
| 83 | Gampaha | Ja Ela PS | Relaulla Opposite Minis. Jhon Amaratunga's House |
| 83 | Gampaha | Ja Ela PS | Relaulla Opposite Minis. Jhon Amaratunga's House |
| 84 | Gampaha | Ja Ela PS | Bomba Handiya Negombo |
| 84 | Gampaha | Ja Ela PS | Bomba Handiya Negombo |
| 59 | Gampaha | Ja Ela UC | Sebastian Perera Road |
| 59 | Gampaha | Ja Ela UC | Sebastian Perera Road |
| 59 | Gampaha | Ja Ela UC | Sebastian Perera Mawatha |
| 59 | Gampaha | Ja Ela UC | Sebastian Perera Mawatha |
| 60 | Gampaha | Ja Ela UC | Hanadiyawala Road |
| 60 | Gampaha | Ja Ela UC | Hanadiyawala Road |
| 61 | Gampaha | Ja Ela UC | Migel Seneviratna Road |
| 61 | Gampaha | Ja Ela UC | Migel Seneviratna Road |
| 61 | Gampaha | Ja Ela UC | Migel Perera Mawatha |
| 61 | Gampaha | Ja Ela UC | Migel Perera Mawatha |
| 62 | Gampaha | Ja Ela UC | Kappithhawatta Road |
| 62 | Gampaha | Ja Ela UC | Kappithhawatta Road |
| 63 | Gampaha | Ja Ela UC | Perera Road - close to the Volleyball Grounds |
| 63 | Gampaha | Ja Ela UC | Perera Road - close to the Volleyball Grounds |
| 64 | Gampaha | Ja Ela UC | Perera Road (2nd Lane) |
| 64 | Gampaha | Ja Ela UC | Perera Road (2nd Lane) |
| 65 | Gampaha | Ja Ela UC | Welikuruduwatta Church to Rilawalla |
| 65 | Gampaha | Ja Ela UC | Welikuruduwatta Road |
| 66 | Gampaha | Ja Ela UC | Ja Ela Bund Area |
| 66 | Gampaha | Ja Ela UC | close to Bund Area |
| 66 | Gampaha | Ja Ela UC | Bund Road |
| 66 | Gampaha | Ja Ela UC | Bund Road |
| 48 | Gampaha | Katana PS | Dambadore |
| 48 | Gampaha | Katana PS | Dambadore |
| 409 | Gampaha | Katana PS | Aramba |
| 409 | Gampaha | Katana PS | Araba |
| 409 | Gampaha | Katana PS | Araba |
| 51 | Gampaha | Katunayake Seeduwa UC | Kanaththa Road |
| 51 | Gampaha | Katunayake Seeduwa UC | Livanagemulla Methodist Church Area |
| 52 | Gampaha | Katunayake Seeduwa UC | Livanagemulla Methodist Church Area |
| 52 | Gampaha | Katunayake Seeduwa UC | Livanagemulla Methodist Church Area |
| 53 | Gampaha | Katunayake Seeduwa UC | Konrad Premaratne Mawatha |
| 53 | Gampaha | Katunayake Seeduwa UC | Konrad Premaratne Mawatha |
| 54 | Gampaha | Katunayake Seeduwa UC | Konrad Premaratne Mawatha |
| 54 | Gampaha | Katunayake Seeduwa UC | Seeduwa Radoluwa Road near Seeduwa Town |
| 55 | Gampaha | Katunayake Seeduwa UC | Kosgahawatta Road |
| 55 | Gampaha | Katunayake Seeduwa UC | Kosgahawatta Road |
| 56 | Gampaha | Katunayake Seeduwa UC | Ambalanmulla Temple Area - Main Road |
| 56 | Gampaha | Katunayake Seeduwa UC | Ambalanmulla Temple Area - Main Road |
| 56 | Gampaha | Katunayake Seeduwa UC | Ambalanmulla Temple |
| 57 | Gampaha | Katunayake Seeduwa UC | Kidigoda Church Area |
| 57 | Gampaha | Katunayake Seeduwa UC | Kidigoda Church Area |
| 57 | Gampaha | Katunayake Seeduwa UC | Kindigoda |
| 58 | Gampaha | Katunayake Seeduwa UC | Livanagemulla Main Road |
| 58 | Gampaha | Katunayake Seeduwa UC | Livanagemulla Main Road |
| 94 | Gampaha | Kelaniya PS | Gangabada Area (between N. Bund and Kelani River) |
| 94 | Gampaha | Kelaniya PS | Gangabada Area (between N. Bund and Kelani River) |
| 95 | Gampaha | Kelaniya PS | Pethiyagoda Weerasinghe Mw. Junction |
| 95 | Gampaha | Kelaniya PS | 1st Lane Nilamege Watte |
| 96 | Gampaha | Kelaniya PS | Sinharamulla |
| 96 | Gampaha | Kelaniya PS | Gomis Mawatha |
| 97 | Gampaha | Kelaniya PS | Lasantha Sanjeeva Mw. |
| 97 | Gampaha | Kelaniya PS | Welawatta Road |
| 98 | Gampaha | Kelaniya PS | Green Haven State |

3. List of Questionnaire Survey Locations (2/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|----------------|--|
| 98 | Gampaha | Kelaniya PS | Green Haven State |
| 99 | Gampaha | Kelaniya PS | Wanawasala |
| 99 | Gampaha | Kelaniya PS | Behind Wanawasala Station |
| 100 | Gampaha | Kelaniya PS | Posonwatte Lane |
| 100 | Gampaha | Kelaniya PS | Posonwatte Lane |
| 101 | Gampaha | Kelaniya PS | Manelgama Road |
| 101 | Gampaha | Kelaniya PS | Manelgama Road |
| 102 | Gampaha | Kelaniya PS | Nandana Mawatha |
| 102 | Gampaha | Kelaniya PS | Seewalee Mw. |
| 103 | Gampaha | Kelaniya PS | Dikpitiyoda Rd. |
| 103 | Gampaha | Kelaniya PS | Dikpitiyoda Rd. |
| 104 | Gampaha | Kelaniya PS | Galwala Road |
| 104 | Gampaha | Kelaniya PS | Galwala Road |
| 105 | Gampaha | Kelaniya PS | Umagaliya Place |
| 105 | Gampaha | Kelaniya PS | Umagaliya Place |
| 106 | Gampaha | Kelaniya PS | Kuttampokuna Road |
| 106 | Gampaha | Kelaniya PS | Kuttampokuna Road |
| 107 | Gampaha | Kelaniya PS | St Francis Mawatha |
| 107 | Gampaha | Kelaniya PS | St Francis Mawatha |
| 108 | Gampaha | Kelaniya PS | Polhena Road |
| 108 | Gampaha | Kelaniya PS | Polhena Road |
| 109 | Gampaha | Kelaniya PS | Kohalwila Road |
| 109 | Gampaha | Kelaniya PS | Kohalwila Road |
| 110 | Gampaha | Kelaniya PS | Nahena Siripura |
| 110 | Gampaha | Kelaniya PS | Nahena Siripura |
| 111 | Gampaha | Kelaniya PS | Wewelduwa |
| 111 | Gampaha | Kelaniya PS | Wewelduwa |
| 112 | Gampaha | Kelaniya PS | Nagahawatte Road |
| 112 | Gampaha | Kelaniya PS | Nagahawatte Road |
| 113 | Gampaha | Kelaniya PS | Alawala Wimaladarma Mw. |
| 113 | Gampaha | Kelaniya PS | Alubogahawatte Road , Fernando Mw. |
| 114 | Gampaha | Kelaniya PS | Nuge Mawatha. |
| 114 | Gampaha | Kelaniya PS | Maya Mw. |
| 115 | Gampaha | Kelaniya PS | Thambiligasmulla Rd. |
| 115 | Gampaha | Kelaniya PS | Thambiligasmulla Rd. |
| 95 | Gampaha | Kelaniya UC | Sathamaha Devwala Road |
| 98 | Gampaha | Kelaniya UC | Green House L B Finance Housing Scheme |
| 99 | Gampaha | Kelaniya UC | Wanawasala Railway Line |
| 100 | Gampaha | Kelaniya UC | Posson Watte Lane |
| 101 | Gampaha | Kelaniya UC | Manel Gama |
| 85 | Gampaha | Mahara PS | Gongithota Enderamulla |
| 85 | Gampaha | Mahara PS | Gongithota Enderamulla |
| 86 | Gampaha | Mahara PS | Ganemulla |
| 86 | Gampaha | Mahara PS | Ganemulla |
| 77 | Gampaha | Minuwangoda PS | Asgiriwalpola Junction |
| 77 | Gampaha | Minuwangoda PS | Kirindiwita |
| 93 | Gampaha | Paliyagoda UC | Gamunu Mawatha |
| 88 | Gampaha | Peliyagoda UC | Gangarama Thotupala Road |
| 88 | Gampaha | Peliyagoda UC | Gangarama Thotupala Road |
| 89 | Gampaha | Peliyagoda UC | Meegawatte |
| 89 | Gampaha | Peliyagoda UC | Meegawatte |
| 90 | Gampaha | Peliyagoda UC | Nelligahawatte |
| 90 | Gampaha | Peliyagoda UC | Nelligahawatte |
| 91 | Gampaha | Peliyagoda UC | Dutugemunu Mw. |
| 91 | Gampaha | Peliyagoda UC | Dutugemunu Mw. |
| 92 | Gampaha | Peliyagoda UC | Parakrama Mawatha |
| 92 | Gampaha | Peliyagoda UC | Jambugaha Thotupala |
| 93 | Gampaha | Peliyagoda UC | Gemunu Mw. |
| 93 | Gampaha | Peliyagoda UC | Naraminiya Rd. Housing |
| 13 | Gampaha | Wattala PS | Sedawatta |
| 13 | Gampaha | Wattala PS | Sedawatta |
| 14 | Gampaha | Wattala PS | Mahawaththa Rd, Saruwela Road |
| 14 | Gampaha | Wattala PS | Mahawaththa Rd, Saruwela Road |
| 15 | Gampaha | Wattala PS | Bopitiya, Waththala Rd, Lamaniwasa Rd |
| 15 | Gampaha | Wattala PS | Bopitiya, Waththala Rd, Lamaniwasa Rd |
| 16 | Gampaha | Wattala PS | Bopitiya, Waththala Rd, Lamaniwasa Rd |
| 16 | Gampaha | Wattala PS | Bopitiya, Waththala Rd, Lamaniwasa Rd |
| 17 | Gampaha | Wattala PS | Nugpe Area |
| 17 | Gampaha | Wattala PS | Nugpe Area |
| 18 | Gampaha | Wattala PS | Pattiyawala Area |
| 18 | Gampaha | Wattala PS | Pattiyawala Area |
| 19 | Gampaha | Wattala PS | Aluthakkerawatta |
| 19 | Gampaha | Wattala PS | Aluthakkerawatta |
| 20 | Gampaha | Wattala PS | Cardinal Cooray MW. |
| 20 | Gampaha | Wattala PS | Cardinal Cooray MW. |
| 21 | Gampaha | Wattala PS | Matagoda |
| 21 | Gampaha | Wattala PS | Matagoda |
| 22 | Gampaha | Wattala PS | Kerawalapitiya |
| 22 | Gampaha | Wattala PS | Kerawalapitiya |
| 23 | Gampaha | Wattala PS | Bund Road |
| 23 | Gampaha | Wattala PS | Olandagama |
| 24 | Gampaha | Wattala PS | Bund Road |

3. List of Questionnaire Survey Locations (3/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|-------------------|----------------------------------|
| 24 | Gampaha | Wattala PS | Bund Road |
| 25 | Gampaha | Wattala PS | Yodaya Kanatta Mw. |
| 25 | Gampaha | Wattala PS | Yodaya Kanatta Mw. |
| 26 | Gampaha | Wattala PS | Hekiththa |
| 26 | Gampaha | Wattala PS | Hekiththa |
| 27 | Gampaha | Wattala PS | Thimbrigasyaya |
| 27 | Gampaha | Wattala PS | Thimbrigasyaya |
| 28 | Gampaha | Wattala PS | Walisara & Walihena Area |
| 28 | Gampaha | Wattala PS | Walisara & Walihena Area |
| 29 | Gampaha | Wattala PS | Gunasekara Mawatha |
| 29 | Gampaha | Wattala PS | Gunasekara Mawatha |
| 30 | Gampaha | Wattala PS | Magamma Area |
| 30 | Gampaha | Wattala PS | Magamma Area |
| 31 | Gampaha | Wattala PS | Keragapokuna |
| 31 | Gampaha | Wattala PS | Keragapokuna |
| 32 | Gampaha | Wattala PS | Horape |
| 32 | Gampaha | Wattala PS | Horape |
| 33 | Gampaha | Wattala PS | Tharakuliya Road |
| 33 | Gampaha | Wattala PS | Tharakuliya Road |
| 34 | Gampaha | Wattala PS | Lines Wella |
| 34 | Gampaha | Wattala PS | Lines Wella |
| 35 | Gampaha | Wattala PS | Rogus Mawatha |
| 35 | Gampaha | Wattala PS | Rogus Mawatha |
| 36 | Gampaha | Wattala PS | Lunubemma Road |
| 36 | Gampaha | Wattala PS | Lunubemma Road |
| 37 | Gampaha | Wattala PS | Kadola Road |
| 37 | Gampaha | Wattala PS | Kadola Road |
| 38 | Gampaha | Wattala PS | Nelumwila Road |
| 38 | Gampaha | Wattala PS | Nelumwila Road |
| 39 | Gampaha | Wattala PS | Pelawaththa Road |
| 39 | Gampaha | Wattala PS | Pelawaththa Road |
| 40 | Gampaha | Wattala PS | Nawodaya Road |
| 40 | Gampaha | Wattala PS | Nawodaya Road |
| 41 | Gampaha | Wattala PS | Welihida Road |
| 41 | Gampaha | Wattala PS | Welihida Road |
| 42 | Gampaha | Wattala PS | Jayaprema Mawatha |
| 42 | Gampaha | Wattala PS | Jayaprema Mawatha |
| 43 | Gampaha | Wattala PS | Reginawila Road |
| 43 | Gampaha | Wattala PS | Reginawila Road |
| 44 | Gampaha | Wattala PS | Thampala/ Muthuwadiya |
| 48 | Gampaha | Wattala PS | Dabaduraya |
| 410 | Gampaha | Wattala PS | Lunubemma Road |
| 410 | Gampaha | Wattala PS | Lunubemma Road |
| 67 | Gampaha | Wattala-Mabole UC | Dodammulla |
| 67 | Gampaha | Wattala-Mabole UC | Duwawatta Road |
| 67 | Gampaha | Wattala-Mabole UC | Doowawaththa |
| 67 | Gampaha | Wattala-Mabole UC | Doowawaththa |
| 67 | Gampaha | Wattala-Mabole UC | Doowawaththa |
| 68 | Gampaha | Wattala-Mabole UC | Pathima Mawatha Area |
| 68 | Gampaha | Wattala-Mabole UC | Pathima Mawatha Area |
| 68 | Gampaha | Wattala-Mabole UC | Fathima Mawatha |
| 69 | Gampaha | Wattala-Mabole UC | Arachchigewatta Road |
| 69 | Gampaha | Wattala-Mabole UC | Arachchigewatta Road |
| 69 | Gampaha | Wattala-Mabole UC | Arachchige Watta |
| 70 | Gampaha | Wattala-Mabole UC | Warallatuduwa Rd. |
| 70 | Gampaha | Wattala-Mabole UC | Warallatuduwa Rd. |
| 71 | Gampaha | Wattala-Mabole UC | Main Road Seeduwa |
| 71 | Gampaha | Wattala-Mabole UC | Main Road Seeduwa |
| 72 | Gampaha | Wattala-Mabole UC | Old Church Road |
| 72 | Gampaha | Wattala-Mabole UC | Old Church Road |
| 73 | Gampaha | Wattala-Mabole UC | Vincent Joseph Mw. |
| 73 | Gampaha | Wattala-Mabole UC | Vincent Joseph Mw. |
| 74 | Gampaha | Wattala-Mabole UC | St. Nicholas Mw. |
| 74 | Gampaha | Wattala-Mabole UC | St. Nicholas Mw. |
| 75 | Gampaha | Wattala-Mabole UC | Oliyamma Housing Scheme |
| 75 | Gampaha | Wattala-Mabole UC | Oliyamma Housing Scheme |
| 75 | Gampaha | Wattala-Mabole UC | Ollsyamulla |
| 75 | Gampaha | Wattala-Mabole UC | Ollsyamulla |
| 75 | Gampaha | Wattala-Mabole UC | Ollsyamulla |
| 136 | Colombo | Colombo MC | near the Zainstan Cinema |
| 136 | Colombo | Colombo MC | opposite Zainstan Cinema |
| 140 | Colombo | Colombo MC | Pickering Road |
| 140 | Colombo | Colombo MC | Gunananda Mawatha |
| 141 | Colombo | Colombo MC | Sumithrama Mawatha |
| 141 | Colombo | Colombo MC | behind George R De Silva Mawatha |
| 141 | Colombo | Colombo MC | Sumithrama Mawatha |
| 142 | Colombo | Colombo MC | Reclamation Road |
| 142 | Colombo | Colombo MC | Reclamation Road |
| 142 | Colombo | Colombo MC | Reclamation Road |
| 143 | Colombo | Colombo MC | near Hilton - York Street |
| 143 | Colombo | Colombo MC | near Hilton - York Street |
| 143 | Colombo | Colombo MC | near Hilton - York Street |

3. List of Questionnaire Survey Locations (4/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|------------|---|
| 144 | Colombo | Colombo MC | Fort - Near Police Station |
| 145 | Colombo | Colombo MC | Mayfield Lane |
| 145 | Colombo | Colombo MC | Mayfield Lane |
| 145 | Colombo | Colombo MC | Mayfield Lane |
| 145 | Colombo | Colombo MC | Paramananda Vihara Mawatha |
| 145 | Colombo | Colombo MC | Paramananda Vihara Mawatha |
| 146 | Colombo | Colombo MC | Lotus Road |
| 146 | Colombo | Colombo MC | Lotus Road |
| 146 | Colombo | Colombo MC | Lotus Road |
| 147 | Colombo | Colombo MC | Prince of Wales Avenue Nagalangama Street |
| 147 | Colombo | Colombo MC | Prince of Wales Avenue Nagalangama Street |
| 147 | Colombo | Colombo MC | Prince of Wales Avenue Nagalangama Street |
| 148 | Colombo | Colombo MC | opposite Kettarama Cricket Stadium |
| 148 | Colombo | Colombo MC | opposite Kettarama Cricket Stadium |
| 148 | Colombo | Colombo MC | opposite Kettarama Cricket Stadium |
| 149 | Colombo | Colombo MC | near Kettarama Stadium |
| 149 | Colombo | Colombo MC | near Kettarama Stadium |
| 149 | Colombo | Colombo MC | near Kettarama Stadium |
| 150 | Colombo | Colombo MC | Sri Saddarma Mawatha |
| 150 | Colombo | Colombo MC | Bodiraja Mawatha |
| 150 | Colombo | Colombo MC | Bodiraja Mawatha |
| 150 | Colombo | Colombo MC | Bodhiraja Mawatha |
| 150 | Colombo | Colombo MC | Bodhiraja Mawatha |
| 151 | Colombo | Colombo MC | Sri Saddarma Mawatha |
| 151 | Colombo | Colombo MC | part of Sri Saddarma Mawatha |
| 151 | Colombo | Colombo MC | part of Sri Saddarma Mawatha |
| 151 | Colombo | Colombo MC | part of Sri Saddarma Mawatha |
| 152 | Colombo | Colombo MC | Junction of Grandpass Road |
| 152 | Colombo | Colombo MC | Junction of Grandpass Road |
| 152 | Colombo | Colombo MC | Junction of Grandpass Road |
| 153 | Colombo | Colombo MC | Sangaraja Mawatha |
| 153 | Colombo | Colombo MC | Sangaraja Mawatha |
| 153 | Colombo | Colombo MC | Sangaraja Mawatha |
| 154 | Colombo | Colombo MC | Maligawatta Flats |
| 154 | Colombo | Colombo MC | Maligawatta Flats |
| 154 | Colombo | Colombo MC | Maligawatta Flats |
| 155 | Colombo | Colombo MC | Dias Place |
| 155 | Colombo | Colombo MC | Dias Place |
| 155 | Colombo | Colombo MC | Suunders Place |
| 156 | Colombo | Colombo MC | Olcott Mawatha up to Lake House |
| 157 | Colombo | Colombo MC | Bodiraja Mawatha |
| 157 | Colombo | Colombo MC | Bodiraja Mawatha |
| 157 | Colombo | Colombo MC | Gas work st. (Bodiraja Mw) |
| 158 | Colombo | Colombo MC | Bastian Mawatha |
| 158 | Colombo | Colombo MC | Bastian Mawatha |
| 158 | Colombo | Colombo MC | Bastian Mawatha |
| 159 | Colombo | Colombo MC | 1st - 4th Cross Road |
| 159 | Colombo | Colombo MC | 1st - 4th Cross Road |
| 159 | Colombo | Colombo MC | 1st - 4th Cross Road |
| 160 | Colombo | Colombo MC | Macalum Road |
| 160 | Colombo | Colombo MC | Macalum Road |
| 160 | Colombo | Colombo MC | Macalum Road |
| 161 | Colombo | Colombo MC | Nawam Mawatha |
| 161 | Colombo | Colombo MC | Nawam Mawatha |
| 161 | Colombo | Colombo MC | Nawam Mawatha |
| 162 | Colombo | Colombo MC | Perahera Mawatha |
| 162 | Colombo | Colombo MC | Perahera Mawatha |
| 162 | Colombo | Colombo MC | Perahera Mawatha |
| 163 | Colombo | Colombo MC | Junction of Dharmapala Ma. - Marcus Fernando Mw |
| 163 | Colombo | Colombo MC | Junction of Dharmapala Ma. - Marcus Fernando Mw |
| 163 | Colombo | Colombo MC | Junction of Dharmapala Ma. - Marcus Fernando Mw |
| 164 | Colombo | Colombo MC | Ananda Kumaraswamy Mw |
| 164 | Colombo | Colombo MC | Ananda Kumaraswamy Mw |
| 164 | Colombo | Colombo MC | Ananda Kumaraswamy Mw |
| 165 | Colombo | Colombo MC | Vipula Sena Mw |
| 165 | Colombo | Colombo MC | Vipula Sena Mw |
| 165 | Colombo | Colombo MC | Vipula Sena Mw |
| 166 | Colombo | Colombo MC | Deans Road - Foster Lane |
| 166 | Colombo | Colombo MC | Deans Road - Foster Lane |
| 166 | Colombo | Colombo MC | Deans Road - Foster Lane |
| 167 | Colombo | Colombo MC | Vauxhall Street |
| 167 | Colombo | Colombo MC | Vauxhall Street |
| 167 | Colombo | Colombo MC | Vauxhall Street |
| 168 | Colombo | Colombo MC | Vauxhall Street |
| 168 | Colombo | Colombo MC | Vauxhall Street |
| 168 | Colombo | Colombo MC | Vauxhall Street |
| 169 | Colombo | Colombo MC | Park Street |
| 169 | Colombo | Colombo MC | Park Street |
| 169 | Colombo | Colombo MC | Park Street |
| 170 | Colombo | Colombo MC | Junction to Maradana & Ananda Mawatha |
| 170 | Colombo | Colombo MC | Junction to Maradana & Ananda Mawatha |
| 170 | Colombo | Colombo MC | Junction to Maradana & Ananda Mawatha |

3. List of Questionnaire Survey Locations (5/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|------------|---|
| 171 | Colombo | Colombo MC | Junction of Maradana Road & Maligakanda |
| 171 | Colombo | Colombo MC | Junction of Maradana Road & Maligakanda |
| 171 | Colombo | Colombo MC | Junction of Maradana Road & Maligakanda |
| 172 | Colombo | Colombo MC | Arnold Ratnayaka Road |
| 172 | Colombo | Colombo MC | Arnold Ratnayaka Road |
| 172 | Colombo | Colombo MC | Arnold Ratnayaka Road |
| 173 | Colombo | Colombo MC | Devanampiyatissa Mawatha off Deans Road |
| 173 | Colombo | Colombo MC | Devanampiyatissa Mawatha off Deans Road |
| 173 | Colombo | Colombo MC | Devanampiyatissa Mawatha off Deans Road |
| 174 | Colombo | Colombo MC | Malay Street |
| 174 | Colombo | Colombo MC | Malay Street |
| 174 | Colombo | Colombo MC | Malay Street |
| 175 | Colombo | Colombo MC | Albion Road |
| 175 | Colombo | Colombo MC | Perth Road |
| 175 | Colombo | Colombo MC | Perth Road |
| 175 | Colombo | Colombo MC | Albian Lane, Dematagoda |
| 176 | Colombo | Colombo MC | Base Line Lane |
| 176 | Colombo | Colombo MC | Base Line Lane |
| 176 | Colombo | Colombo MC | Base Line Lane |
| 176 | Colombo | Colombo MC | Mahawela Lane |
| 177 | Colombo | Colombo MC | Aramaya Road |
| 177 | Colombo | Colombo MC | Aramaya Road |
| 177 | Colombo | Colombo MC | Aramaya Road |
| 177 | Colombo | Colombo MC | Aramaya Road |
| 178 | Colombo | Colombo MC | Gnnawimala Road |
| 178 | Colombo | Colombo MC | Gnnawimala Road |
| 178 | Colombo | Colombo MC | Gorakagaha Path |
| 179 | Colombo | Colombo MC | 871 Watta, Sri Sugatnawansa Mv |
| 179 | Colombo | Colombo MC | 872 Watta, Sri Sugatnawansa Mv |
| 179 | Colombo | Colombo MC | 873 Watta, Sri Sugatnawansa Mv |
| 180 | Colombo | Colombo MC | Borella Kannagara Vidyalaya |
| 180 | Colombo | Colombo MC | Near Borella Kannagara Vidyalaya |
| 180 | Colombo | Colombo MC | Anada Rajakaruna Mawatha |
| 181 | Colombo | Colombo MC | J D Fernando Mawatha |
| 181 | Colombo | Colombo MC | J D Fernando Mawatha |
| 181 | Colombo | Colombo MC | J D Fernando Mawatha |
| 182 | Colombo | Colombo MC | Magazine Road |
| 182 | Colombo | Colombo MC | Magazine Road |
| 182 | Colombo | Colombo MC | Magazine Road |
| 182 | Colombo | Colombo MC | Magazine Road |
| 183 | Colombo | Colombo MC | Surpentine Road |
| 183 | Colombo | Colombo MC | Surpentine Road |
| 183 | Colombo | Colombo MC | Surpentine Road |
| 183 | Colombo | Colombo MC | Surpentine Road |
| 184 | Colombo | Colombo MC | Temple Avenue Sri Saddarama Mw |
| 184 | Colombo | Colombo MC | Sri Saddarma Mawatha Borella |
| 184 | Colombo | Colombo MC | Marikkar Place of Sri Saddarma Mw |
| 185 | Colombo | Colombo MC | Alfred Place of Duplication Road |
| 185 | Colombo | Colombo MC | Alfred Place of Duplication Road |
| 185 | Colombo | Colombo MC | Alfred Place of Duplication Road |
| 186 | Colombo | Colombo MC | Louries Road |
| 186 | Colombo | Colombo MC | Louries Road |
| 186 | Colombo | Colombo MC | Louries Road |
| 186 | Colombo | Colombo MC | Louries Road |
| 187 | Colombo | Colombo MC | Asoka Gardens |
| 187 | Colombo | Colombo MC | Asoka Gardens |
| 187 | Colombo | Colombo MC | Asoka Gardens |
| 187 | Colombo | Colombo MC | Asoka Gardens |
| 188 | Colombo | Colombo MC | Bethesda Place |
| 188 | Colombo | Colombo MC | Bethesda Place |
| 188 | Colombo | Colombo MC | Bethesda Place |
| 188 | Colombo | Colombo MC | Bethesda Place |
| 189 | Colombo | Colombo MC | Cliffered Avenue |
| 189 | Colombo | Colombo MC | Cliffered Avenue |
| 189 | Colombo | Colombo MC | Cliffered Avenue |
| 189 | Colombo | Colombo MC | Cliffered Avenue |
| 190 | Colombo | Colombo MC | Palm Grove Avenue |
| 208 | Colombo | Colombo MC | Dabare Lane |
| 210 | Colombo | Colombo MC | Bloomfield Grounds |
| 211 | Colombo | Colombo MC | end of Classan Place |
| 211 | Colombo | Colombo MC | end of Classan Place |
| 211 | Colombo | Colombo MC | end of Classan Place |
| 211 | Colombo | Colombo MC | end of Classan Place |
| 212 | Colombo | Colombo MC | Devos Avenue |
| 213 | Colombo | Colombo MC | Roundabout at Kotahena Road |
| 215 | Colombo | Colombo MC | Modle Farm Road, near Heen Ela |
| 216 | Colombo | Colombo MC | Macleod Road near Duplication Road |
| 216 | Colombo | Colombo MC | Macleod Road near Duplication Road |
| 217 | Colombo | Colombo MC | Lorence Road near Hindu College |
| 220 | Colombo | Colombo MC | Anderson Flats area near Survey Dept |
| 220 | Colombo | Colombo MC | Anderson Flats |
| 220 | Colombo | Colombo MC | Anderson Flats |
| 221 | Colombo | Colombo MC | Park Road |
| 221 | Colombo | Colombo MC | Park Road |
| 221 | Colombo | Colombo MC | Park Road |
| 221 | Colombo | Colombo MC | Park Road |
| 222 | Colombo | Colombo MC | Gunethilaka Avenue |
| 222 | Colombo | Colombo MC | Gunethilaka Avenue |
| 222 | Colombo | Colombo MC | Gunethilaka Avenue |
| 222 | Colombo | Colombo MC | Gunethilaka Avenue |

3. List of Questionnaire Survey Locations (6/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|------------|--|
| 223 | Colombo | Colombo MC | Polhengoda Road |
| 223 | Colombo | Colombo MC | Polhengoda Road |
| 223 | Colombo | Colombo MC | Polhengoda Road |
| 223 | Colombo | Colombo MC | Polhengoda Road |
| 224 | Colombo | Colombo MC | Averihena Road End |
| 224 | Colombo | Colombo MC | Averihena Road End |
| 224 | Colombo | Colombo MC | Averihena Road End |
| 224 | Colombo | Colombo MC | Averihena Road End |
| 225 | Colombo | Colombo MC | 140 and 128 Watta, Poorwarama Road |
| 225 | Colombo | Colombo MC | 140 and 128 Watta, Poorwarama Road |
| 225 | Colombo | Colombo MC | 140 and 128 Watta, Poorwarama Road |
| 225 | Colombo | Colombo MC | 140 and 128 Watta, Poorwarama Road |
| 225 | Colombo | Colombo MC | 140 and 128 Watta, Poorwarama Road |
| 226 | Colombo | Colombo MC | Siddhartha Passage Extension |
| 226 | Colombo | Colombo MC | Siddhartha Passage Extension |
| 226 | Colombo | Colombo MC | Siddhartha Passage Extension |
| 227 | Colombo | Colombo MC | Perchasing & Sales Center Kirulapana |
| 227 | Colombo | Colombo MC | Perchasing & Sales Center Kirulapana |
| 227 | Colombo | Colombo MC | Perchasing & Sales Center Kirulapana |
| 227 | Colombo | Colombo MC | Perchasing and Sales Comple, Kirulapone |
| 227 | Colombo | Colombo MC | Perchasing and Sales Comple, Kirulapone |
| 228 | Colombo | Colombo MC | Rudra Mw |
| 228 | Colombo | Colombo MC | Rudra Mw |
| 228 | Colombo | Colombo MC | Rudra Mw |
| 228 | Colombo | Colombo MC | Rudra Mawatha |
| 228 | Colombo | Colombo MC | Rudra Mawatha |
| 229 | Colombo | Colombo MC | Arethus Lane |
| 229 | Colombo | Colombo MC | Arethus Lane |
| 229 | Colombo | Colombo MC | Arethus Lane |
| 125 | Colombo | Colombo MC | Sri Wickrama Mw. Church Rd, Fernando Rd. |
| 125 | Colombo | Colombo MC | Sri Wickrama Mw. Church Rd, Fernando Rd. |
| 125 | Colombo | Colombo MC | Sri Wickrama Mw. Church Rd, Fernando Rd. |
| 126 | Colombo | Colombo MC | St. Mary,s Road & Church Road |
| 126 | Colombo | Colombo MC | St. Mary,s Road & Church Road |
| 126 | Colombo | Colombo MC | St. Mary,s Road & Church Road |
| 127 | Colombo | Colombo MC | Fergusons Road & Church Road |
| 127 | Colombo | Colombo MC | Fergusons Road & Church Road |
| 127 | Colombo | Colombo MC | Fergusons Road & Church Road |
| 128 | Colombo | Colombo MC | Sri Pannananda Mw. |
| 128 | Colombo | Colombo MC | Sri Pannananda Mw. |
| 128 | Colombo | Colombo MC | Sri Pannananda Mw. |
| 129 | Colombo | Colombo MC | Blomendal Road Opposite Oil Tank |
| 129 | Colombo | Colombo MC | Blomendal Road Opposite Oil Tank |
| 129 | Colombo | Colombo MC | Blomendal Road Opposite Oil Tank |
| 130 | Colombo | Colombo MC | Blomendal Junction |
| 130 | Colombo | Colombo MC | Blomendal Junction |
| 130 | Colombo | Colombo MC | Blomendal Junction |
| 131 | Colombo | Colombo MC | Opposite Prince of Wales Flat |
| 131 | Colombo | Colombo MC | Opposite Prince of Wales Flat |
| 131 | Colombo | Colombo MC | Opposite Prince of Wales Flat |
| 132 | Colombo | Colombo MC | Junction of Prince of wales Road & Parakrama Rd. |
| 132 | Colombo | Colombo MC | Junction of Prince of wales Road & Parakrama Rd. |
| 132 | Colombo | Colombo MC | Junction of Prince of wales Road & Parakrama Rd. |
| 133 | Colombo | Colombo MC | Layards Broadway & Armour Street |
| 133 | Colombo | Colombo MC | Layards Broadway & Armour Street |
| 133 | Colombo | Colombo MC | Layards Broadway & Armour Street |
| 134 | Colombo | Colombo MC | Armour Street part of Prince of Wales Road |
| 134 | Colombo | Colombo MC | Armour Street part of Prince of Wales Road |
| 134 | Colombo | Colombo MC | Armour Street part of Prince of Wales Road |
| 135 | Colombo | Colombo MC | Blomendhal Road, George Road, De Silva Mw. |
| 135 | Colombo | Colombo MC | Blomendhal Road, George Road, De Silva Mw. |
| 135 | Colombo | Colombo MC | Blomendhal Road, George Road, De Silva Mw. |
| 136 | Colombo | Colombo MC | opposite Zainstan Theater |
| 136 | Colombo | Colombo MC | opposite Zainstan Theater |
| 136 | Colombo | Colombo MC | opposite Zainstan Theater |
| 137 | Colombo | Colombo MC | Vystwyke Rd. to Crow Island |
| 137 | Colombo | Colombo MC | Vystwyke Rd. to Crow Island |
| 137 | Colombo | Colombo MC | Vystwyke Rd. to Crow Island |
| 139 | Colombo | Colombo MC | Modera Street |
| 139 | Colombo | Colombo MC | Modera Street |
| 139 | Colombo | Colombo MC | Modera Street |
| 140 | Colombo | Colombo MC | Gunananda Mw. |
| 190 | Colombo | Colombo MC | Palm Grow Avenue |
| 190 | Colombo | Colombo MC | Palm Grow Avenue |
| 191 | Colombo | Colombo MC | 27th Lane, off Inner Flower Road |
| 191 | Colombo | Colombo MC | 27th Lane |
| 192 | Colombo | Colombo MC | Flower Terrace, off Unity Place |
| 192 | Colombo | Colombo MC | Flower Terrace, off Unity Place |
| 192 | Colombo | Colombo MC | Flower Terrace, off Unity Place |
| 193 | Colombo | Colombo MC | 27th Lane, off Flower Road |
| 194 | Colombo | Colombo MC | 28th Lane, off Flower Road |

3. List of Questionnaire Survey Locations (7/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|-------------------------|--|
| 194 | Colombo | Colombo MC | 5th Lane, Colombo 3 |
| 194 | Colombo | Colombo MC | 6th Lane, Colombo 3 |
| 194 | Colombo | Colombo MC | 7th Lane, Colombo 3 |
| 195 | Colombo | Colombo MC | Inner Flower Road |
| 195 | Colombo | Colombo MC | Inner Flower Road |
| 195 | Colombo | Colombo MC | Inner Flower Road |
| 196 | Colombo | Colombo MC | Cambrige Place |
| 196 | Colombo | Colombo MC | Cambrige Place |
| 196 | Colombo | Colombo MC | Cambrige Place |
| 197 | Colombo | Colombo MC | Boralla Cross Road, junction at Maradana Road |
| 197 | Colombo | Colombo MC | Boralla Cross Road, junction at Maradana Road |
| 197 | Colombo | Colombo MC | Boralla Cross Road, junction at Maradana Road |
| 198 | Colombo | Colombo MC | junction at Ward Place |
| 198 | Colombo | Colombo MC | junction at Ward Place |
| 198 | Colombo | Colombo MC | junction at Ward Place |
| 199 | Colombo | Colombo MC | Kynsey Road and Gregery Road - Katana End |
| 199 | Colombo | Colombo MC | Kynsey Road and Gregery Road - Katana End |
| 199 | Colombo | Colombo MC | Kynsey Road and Gregery Road - Katana End |
| 200 | Colombo | Colombo MC | Wijerama Mawatha |
| 200 | Colombo | Colombo MC | Wijerama Mawatha |
| 200 | Colombo | Colombo MC | Wijerama Mawatha |
| 201 | Colombo | Colombo MC | Watta of Alwitigala Mawatha |
| 201 | Colombo | Colombo MC | Watta of Alwitigala Mawatha |
| 201 | Colombo | Colombo MC | Watta of Alwitigala Mawatha |
| 202 | Colombo | Colombo MC | behind Plywood Corporation of Baudhdhaloka Mawatha |
| 202 | Colombo | Colombo MC | behind Plywood Corporation of Baudhdhaloka Mawatha |
| 202 | Colombo | Colombo MC | behind Plywood Corporation of Baudhdhaloka Mawatha |
| 202 | Colombo | Colombo MC | behind Plywood Corporation of Baudhdhaloka Mawatha |
| 202 | Colombo | Colombo MC | behind Plywood Corporation of Baudhdhaloka Mawatha |
| 203 | Colombo | Colombo MC | behind Plywood Corporation of Baudhdhaloka Mawatha |
| 203 | Colombo | Colombo MC | behind Plywood Corporation of Baudhdhaloka Mawatha |
| 204 | Colombo | Colombo MC | Tharawattha,Maitland Place |
| 204 | Colombo | Colombo MC | Tharawattha,Maitland Place |
| 204 | Colombo | Colombo MC | Tharawattha,Maitland Place |
| 205 | Colombo | Colombo MC | Jayanthi Children Home 400/5 Watta |
| 205 | Colombo | Colombo MC | Jayanthi Children Home 400/5 Watta |
| 205 | Colombo | Colombo MC | near Jayanthy Children Home 400/5 Watta |
| 205 | Colombo | Colombo MC | near Jayanthy Children Home 400/5 Watta |
| 206 | Colombo | Colombo MC | around Independence Square Road |
| 206 | Colombo | Colombo MC | around Independence Square Road |
| 206 | Colombo | Colombo MC | around Independence Square Road |
| 207 | Colombo | Colombo MC | Koswatta Road Junction off Alhitigala Mawatha |
| 207 | Colombo | Colombo MC | Koswatta Road Junction off Alhitigala Mawatha |
| 207 | Colombo | Colombo MC | Koswatta Road Junction off Alhitigala Mawatha |
| 208 | Colombo | Colombo MC | Mahawaththa Scheme Stage 2 (Dabare Mw.) |
| 208 | Colombo | Colombo MC | Mahawaththa Scheme Stage 2 (Dabare Mw.) |
| 208 | Colombo | Colombo MC | temple at Dabare Mawatha |
| 209 | Colombo | Colombo MC | 80/1 Watta, Kashshapa Rd, D.S Fonseka Rd |
| 209 | Colombo | Colombo MC | 1/81 Watta, Kashhepa Rd, D.S Fonseka Rd |
| 209 | Colombo | Colombo MC | 1/80 Watta, Kashhepa Rd, D.S Fonseka Rd |
| 212 | Colombo | Colombo MC | Devos Avenue |
| 213 | Colombo | Colombo MC | round about Kota Road |
| 213 | Colombo | Colombo MC | round about Kota Road |
| 214 | Colombo | Colombo MC | Irrigation Department Quarters, Kotta Road |
| 214 | Colombo | Colombo MC | Nugagahawatta - Model Farm Road |
| 214 | Colombo | Colombo MC | Nugagahawatta - Model Farm Road |
| 214 | Colombo | Colombo MC | Nugagahawatta - Model Farm Road |
| 215 | Colombo | Colombo MC | Model Farm Road, near Heen Ela |
| 215 | Colombo | Colombo MC | Model Farm Road, near Heen Ela |
| 215 | Colombo | Colombo MC | Model Farm Road, near Heen Ela |
| 216 | Colombo | Colombo MC | Macleod Road, Galle Road End |
| 216 | Colombo | Colombo MC | Macleod Road, Galle Road End |
| 217 | Colombo | Colombo MC | Lorenze Road near Hindu College |
| 217 | Colombo | Colombo MC | Lorenze Road near Hindu College |
| 217 | Colombo | Colombo MC | Lorenze Road near Hindu College |
| 218 | Colombo | Colombo MC | Maning Place, Colombo 3 |
| 218 | Colombo | Colombo MC | Maning Place, Colombo 3 |
| 218 | Colombo | Colombo MC | Maning Place, Colombo 3 |
| 219 | Colombo | Colombo MC | Macleod Road, Galle Road End |
| 219 | Colombo | Colombo MC | Hathbodhiwatta near Hathbodhi Temple |
| 219 | Colombo | Colombo MC | Hathbodhiwatta near Hathbodhi Temple |
| 219 | Colombo | Colombo MC | Hathbodhiwatta near Hathbodhi Temple |
| 460 | Colombo | Colombo MC | Royal Collage Junction Hostel Play Ground |
| 230 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda Behind St. Joseph's Convent - |
| 230 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda Behind St. Joseph's Convent - |
| 230 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda Behind St. Joseph's Convent - |
| 231 | Colombo | Dehiwala Mt. Lavinia MC | Peters Place |
| 231 | Colombo | Dehiwala Mt. Lavinia MC | Reymond Road |
| 231 | Colombo | Dehiwala Mt. Lavinia MC | Travence Gardens |
| 232 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda - Meldor Place, Tissa, Avenue Area |
| 232 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda - Meldor Place, Tissa, Avenue Area |
| 232 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda - Meldor Place, Tissa, Avenue Area |

3. List of Questionnaire Survey Locations (8/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|-------------------------|--|
| 233 | Colombo | Dehiwala Mt. Lavinia MC | Waidya Road Section |
| 233 | Colombo | Dehiwala Mt. Lavinia MC | Waidya Road Section |
| 233 | Colombo | Dehiwala Mt. Lavinia MC | Waidya Road Section |
| 234 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana, lower end of First Lane |
| 234 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana, lower end of First Lane |
| 235 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana Sri Dhammadara Mw from Maliban Fact. |
| 235 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana Sri Dhammadara Mw from Maliban Fact. |
| 235 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana Sri Dhammadara Mw from Maliban Fact. |
| 236 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana End of Sri Sumangala Road |
| 236 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana End of Sri Sumangala Road |
| 236 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana End of Sri Sumangala Road |
| 237 | Colombo | Dehiwala Mt. Lavinia MC | Attidiya - end of Upananda Mawatha Area around |
| 237 | Colombo | Dehiwala Mt. Lavinia MC | Attidiya - end of Upananda Mawatha Area around |
| 237 | Colombo | Dehiwala Mt. Lavinia MC | Attidiya - end of Upananda Mawatha Area around |
| 238 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Raja Mawatha near school |
| 238 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Raja Mawatha near school |
| 238 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Raja Mawatha near school |
| 239 | Colombo | Dehiwala Mt. Lavinia MC | Mahindarama Road |
| 239 | Colombo | Dehiwala Mt. Lavinia MC | Mahindarama Road |
| 239 | Colombo | Dehiwala Mt. Lavinia MC | Mahindarama Road |
| 240 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Second Lane |
| 240 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Third Lane |
| 240 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Fourth Lane |
| 241 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Borupana Road Irrigation |
| 241 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Borupana Dharmarama Mw |
| 241 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Borupana 1st Cross Str. |
| 242 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda Nalandarama Road |
| 242 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda Nalandarama Road |
| 242 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda Nalandarama Road |
| 243 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda - Perera Mw |
| 243 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda - Perera Mw |
| 243 | Colombo | Dehiwala Mt. Lavinia MC | Nugegoda - Dutugemunu Street Kohuwala |
| 244 | Colombo | Dehiwala Mt. Lavinia MC | Kalubowila - end of Peiris Road, |
| 244 | Colombo | Dehiwala Mt. Lavinia MC | Kalubowila - end of Peiris Road, |
| 244 | Colombo | Dehiwala Mt. Lavinia MC | Prathibimbaramaya |
| 245 | Colombo | Dehiwala Mt. Lavinia MC | Kalubowila - Woodland Avenue Part |
| 245 | Colombo | Dehiwala Mt. Lavinia MC | Kalubowila - Woodland Avenue Part |
| 245 | Colombo | Dehiwala Mt. Lavinia MC | Kalubowila - Woodland Avenue Part |
| 246 | Colombo | Dehiwala Mt. Lavinia MC | Dehiwala - near Vilasnee Theatre, Liyanage Road |
| 246 | Colombo | Dehiwala Mt. Lavinia MC | Dehiwala - near Vilasnee Theatre, Liyanage Road |
| 246 | Colombo | Dehiwala Mt. Lavinia MC | Dehiwala - near Vilasnee Theatre, Liyanage Road |
| 247 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia De Saram & College Roads. |
| 247 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia De Saram & College Roads. |
| 247 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia De Saram & College Roads. |
| 247 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia De Saram & College Roads. |
| 247 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia De Saram & College Roads. |
| 247 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia De Saram & College Roads. |
| 249 | Colombo | Dehiwala Mt. Lavinia MC | Attidiya - Manthrimulla Road, |
| 249 | Colombo | Dehiwala Mt. Lavinia MC | Attidiya - Manthrimulla Road, |
| 249 | Colombo | Dehiwala Mt. Lavinia MC | Indigahadeniya Attidiya |
| 250 | Colombo | Dehiwala Mt. Lavinia MC | Uldagoda Mw. |
| 250 | Colombo | Dehiwala Mt. Lavinia MC | Athula Mawatha |
| 250 | Colombo | Dehiwala Mt. Lavinia MC | Uldagoda Mw. |
| 251 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Kandawala Mw Area near Defense Academy |
| 251 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Kandawala |
| 251 | Colombo | Dehiwala Mt. Lavinia MC | Ratmalana - Kandawala |
| 252 | Colombo | Dehiwala Mt. Lavinia MC | Kalubowila, Saranankara Terrace |
| 253 | Colombo | Dehiwala Mt. Lavinia MC | Sunethradevi Road near Dhatumaluwa Temple |
| 253 | Colombo | Dehiwala Mt. Lavinia MC | Sunethradevi Road near Dhatumaluwa Temple |
| 253 | Colombo | Dehiwala Mt. Lavinia MC | Sunethradevi Road near Dhatumaluwa Temple |
| 254 | Colombo | Dehiwala Mt. Lavinia MC | Auburn Side |
| 254 | Colombo | Dehiwala Mt. Lavinia MC | Auburn Side |
| 254 | Colombo | Dehiwala Mt. Lavinia MC | Auburn Side |
| 255 | Colombo | Dehiwala Mt. Lavinia MC | Dehiwala - Fairline Road Area |
| 255 | Colombo | Dehiwala Mt. Lavinia MC | Dehiwala - Fairline Road Area |
| 255 | Colombo | Dehiwala Mt. Lavinia MC | Dehiwala - Fairline Road Area |
| 256 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia Peiris Road, Abeysekera Road Area |
| 256 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia Peiris Road, Abeysekera Road Area |
| 256 | Colombo | Dehiwala Mt. Lavinia MC | Mt. Lavinia Peiris Road, Abeysekera Road Area |
| 257 | Colombo | Dehiwala Mt. Lavinia MC | Yasorapura |
| 257 | Colombo | Dehiwala Mt. Lavinia MC | Yasorapura |
| 257 | Colombo | Dehiwala Mt. Lavinia MC | Yasorapura |
| 258 | Colombo | Dehiwala Mt. Lavinia MC | Vijayaraja Avaneue |
| 258 | Colombo | Dehiwala Mt. Lavinia MC | Vijitha Road |
| 258 | Colombo | Dehiwala Mt. Lavinia MC | Vijayaraja Avaneue |
| 259 | Colombo | Dehiwala Mt. Lavinia MC | Livanage Road |
| 259 | Colombo | Dehiwala Mt. Lavinia MC | Livanage Road |
| 259 | Colombo | Dehiwala Mt. Lavinia MC | Livanage Road |
| 260 | Colombo | Dehiwala Mt. Lavinia MC | Sri Mala Vihara Road |
| 260 | Colombo | Dehiwala Mt. Lavinia MC | Sri Mala Vihara Road |
| 260 | Colombo | Dehiwala Mt. Lavinia MC | Sri Mala Vihara Road |

3. List of Questionnaire Survey Locations (9/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|--------------|---|
| 428 | Colombo | Homagama PS | Hiripitiya, Dole Kade Junc |
| 428 | Colombo | Homagama PS | Hiripitiya, Dole Kade Junc |
| 429 | Colombo | Homagama PS | Diyagama, Kiriwattuduwa Road |
| 429 | Colombo | Homagama PS | Diyagama, Kiriwattuduwa Road |
| 430 | Colombo | Homagama PS | Kiriwattuduwa, Punchi Sikurada Pola |
| 430 | Colombo | Homagama PS | Kiriwattuduwa, Punchi Sikurada Pola |
| 431 | Colombo | Homagama PS | Siyambalagoda, Kudamaduwa |
| 431 | Colombo | Homagama PS | Siyambalagoda, Kudamaduwa |
| 432 | Colombo | Homagama PS | Rilawala Junc |
| 432 | Colombo | Homagama PS | Rilawala Junc |
| 433 | Colombo | Homagama PS | Kahatuduwa Old Police Road |
| 433 | Colombo | Homagama PS | Kahatuduwa Junc |
| 434 | Colombo | Homagama PS | Wetara Junc |
| 434 | Colombo | Homagama PS | Wetara Junc |
| 435 | Colombo | Homagama PS | Undurugoda, Sandagiriwatta |
| 435 | Colombo | Homagama PS | Undurugoda, Sandagiriwatta |
| 436 | Colombo | Homagama PS | Palagama, Weniwelkola Area |
| 436 | Colombo | Homagama PS | Palagama, Weniwelkola Area |
| 411 | Colombo | Kaduwela PS | Welivita Temple Road |
| 411 | Colombo | Kaduwela PS | Welivita Temple Road |
| 411 | Colombo | Kaduwela PS | Welivita Temple Road |
| 412 | Colombo | Kaduwela PS | Hewagama |
| 412 | Colombo | Kaduwela PS | Hewagama |
| 412 | Colombo | Kaduwela PS | Hewagama |
| 413 | Colombo | Kaduwela PS | Kothalawala |
| 413 | Colombo | Kaduwela PS | Kothalawala |
| 413 | Colombo | Kaduwela PS | Kothalawala |
| 413 | Colombo | Kaduwela PS | Kothalawala |
| 415 | Colombo | Kaduwela PS | Subutipura Mawatha of Polduwa Road |
| 415 | Colombo | Kaduwela PS | Subutipura Mawatha of Polduwa Road |
| 416 | Colombo | Kaduwela PS | Malabe Kaduwela Road |
| 419 | Colombo | Kaduwela PS | Arangala off Pittugala |
| 419 | Colombo | Kaduwela PS | Arangala off Pittugala |
| 420 | Colombo | Kaduwela PS | Mahawela off Bakmee Gaha Road |
| 420 | Colombo | Kaduwela PS | Mahawela off Bakmee Gaha Road |
| 421 | Colombo | Kaduwela PS | Pore, Kanatta Road |
| 421 | Colombo | Kaduwela PS | Pore, Govinda Mawatha |
| 421 | Colombo | Kaduwela PS | Pore, Govinda Mawatha |
| 354 | Colombo | Kasbewa PS | Ratnapitiya Colombo, Horana |
| 355 | Colombo | Kasbewa PS | Bellanvila Dehiwala Road, near low land area |
| 358 | Colombo | Kasbewa PS | Bokundara Colombo Horana Road, near ICC |
| 358 | Colombo | Kasbewa PS | Bokundara Colombo Horana Road, near ICC |
| 359 | Colombo | Kasbewa PS | Pattiyawatta Road |
| 360 | Colombo | Kasbewa PS | Karadiyana Area |
| 354 | Colombo | Kesbewa PS | Raththanapitiya Colombo Horana Road, near bridge and low land |
| 354 | Colombo | Kesbewa PS | Raththanapitiya Colombo Horana Road, near bridge and low land |
| 355 | Colombo | Kesbewa PS | Bellanwila Dehiwala Road, near low land area |
| 355 | Colombo | Kesbewa PS | Bellanwila Gramasewaka Office |
| 356 | Colombo | Kesbewa PS | Borelasgamuwa Pubudu Mawatha |
| 356 | Colombo | Kesbewa PS | Borelasgamuwa Pubudu Mawatha |
| 357 | Colombo | Kesbewa PS | Borelasgamuwa Pirivena Road |
| 357 | Colombo | Kesbewa PS | Borelasgamuwa Pirivena Road |
| 357 | Colombo | Kesbewa PS | Borelasgamuwa Pirivena Road |
| 358 | Colombo | Kesbewa PS | Bokundara Colombo Horana Road, near ICC |
| 358 | Colombo | Kesbewa PS | Bokundara Colombo Horana Road, near ICC |
| 359 | Colombo | Kesbewa PS | Battiyawatta |
| 359 | Colombo | Kesbewa PS | Battiyawatta |
| 359 | Colombo | Kesbewa PS | Duwawatta Road |
| 360 | Colombo | Kesbewa PS | Karadiyana Werahera Karadiyana Area |
| 360 | Colombo | Kesbewa PS | Karadiyana Werahera Karadiyana Area |
| 361 | Colombo | Kesbewa PS | Batakettara near Malu Bokkuwa, Piliyandala Kahapola Main Road |
| 361 | Colombo | Kesbewa PS | Batakettara near Malu Bokkuwa, Piliyandala Kahapola Main Road |
| 362 | Colombo | Kesbewa PS | Madapatha Madapatha-Polheana Road near culvert of paddy area |
| 362 | Colombo | Kesbewa PS | Madapatha Madapatha-Polheana Road near culvert of paddy area |
| 363 | Colombo | Kesbewa PS | Thuduwa Road near Walkway Factory, Madapatha-Thuduwa Road |
| 363 | Colombo | Kesbewa PS | Thuduwa Road near Walkway Factory, Madapatha-Thuduwa Road |
| 364 | Colombo | Kesbewa PS | Jaburaliya near Kindelpitiya Bridge, Bandaragama Road |
| 364 | Colombo | Kesbewa PS | Jaburaliya near Kindelpitiya Bridge, Bandaragama Road |
| 321 | Colombo | Kolonnawa UC | Nawalokapura |
| 322 | Colombo | Kolonnawa UC | Kotuwila |
| 323 | Colombo | Kolonnawa UC | Kudabuthgamuwa Area |
| 331 | Colombo | Kolonnawa UC | Gamagewatta, off IDH Road |
| 331 | Colombo | Kolonnawa UC | Gamagewatta, off IDH Road |
| 331 | Colombo | Kolonnawa UC | Gamagewatta, off IDH Road |
| 321 | Colombo | Kolonnawa UC | Nawalokapura - only Floods |
| 321 | Colombo | Kolonnawa UC | Nawalokapura - only Floods |
| 321 | Colombo | Kolonnawa UC | Nawalokapura - only Floods |
| 329 | Colombo | Kolonnawa UC | Meethotamulla - Wadugoda Watta |
| 329 | Colombo | Kolonnawa UC | Meethotamulla - Wadugoda Watta |
| 331 | Colombo | Kolonnawa UC | Gamegawatta IDH Road |
| 331 | Colombo | Kolonnawa UC | Gamegawatta IDH Road |
| 332 | Colombo | Kolonnawa UC | Nagahamulla - Pothuwilkumbura |

3. List of Questionnaire Survey Locations (10/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|----------------|---|
| 332 | Colombo | Kolonnawa UC | Nagahamulla - Pothuwilkumbura |
| 333 | Colombo | Kolonnawa UC | Singhapura - Kolonnawa |
| 333 | Colombo | Kolonnawa UC | Singhapura - Kolonnawa |
| 322 | Colombo | Kotikawatta PS | Kotuwila - Uswatta Area - Wendesi Watta |
| 322 | Colombo | Kotikawatta PS | Kotuwila - Uswatta Area - Wendesi Watta |
| 323 | Colombo | Kotikawatta PS | Kudabuthgamuwa Area |
| 323 | Colombo | Kotikawatta PS | Kudabuthgamuwa Area |
| 324 | Colombo | Kotikawatta PS | Kittampahuwa Road - Wellampitiya |
| 324 | Colombo | Kotikawatta PS | Kittampahuwa Road - Wellampitiya |
| 325 | Colombo | Kotikawatta PS | Balagama Area |
| 325 | Colombo | Kotikawatta PS | Balagama Area |
| 326 | Colombo | Kotikawatta PS | Kelanimulla - Kelani Nadi Mawatha, Pokungoda Rd, Gamsabha Rd, Ganga Asabada Road, Narangoda Road, Salalihini Mawatha. |
| 326 | Colombo | Kotikawatta PS | Kelanimulla - Kelani Nadi Mawatha, Pokungoda Rd, Gamsabha Rd, Ganga Asabada Road, Narangoda Road, Salalihini Mawatha. |
| 327 | Colombo | Kotikawatta PS | Ambatale Wewa Road. |
| 327 | Colombo | Kotikawatta PS | Ambatale Wewa Road. |
| 328 | Colombo | Kotikawatta PS | Brandiyawatta |
| 328 | Colombo | Kotikawatta PS | Brandiyawatta |
| 328 | Colombo | Kotikawatta PS | Bandiyawatta |
| 330 | Colombo | Kotikawatta PS | Megoda Kolonnawa Area |
| 330 | Colombo | Kotikawatta PS | Megoda Kolonnawa Area |
| 414 | Colombo | Kotikawatta PS | Kalapaluwawa |
| 414 | Colombo | Kotikawatta PS | Kalapaluwawa |
| 414 | Colombo | Kotikawatta PS | Kalapaluwawa, Mullariyawa |
| 334 | Colombo | Kotte MC | Obeyskera Pura Arunodaya Mawatha Area |
| 334 | Colombo | Kotte MC | Obeyskera Pura Arunodaya Mawatha Area |
| 335 | Colombo | Kotte MC | Obeyskera Pura U. E. Perera Mawatha Area |
| 335 | Colombo | Kotte MC | Obeyskera Pura U. E. Perera Mawatha Area |
| 336 | Colombo | Kotte MC | Rajagiriya - including town |
| 336 | Colombo | Kotte MC | Rajagiriya - including town |
| 336 | Colombo | Kotte MC | Rajagiriya Town |
| 337 | Colombo | Kotte MC | Bandaranayake Pura |
| 337 | Colombo | Kotte MC | Bandaranayake Pura |
| 337 | Colombo | Kotte MC | Bandaranayake Pura |
| 338 | Colombo | Kotte MC | Nawala Road Near Canal |
| 338 | Colombo | Kotte MC | Nawala Road Near Canal |
| 339 | Colombo | Kotte MC | Angampitiya - Ethulkotte around 9th Lane |
| 339 | Colombo | Kotte MC | Angampitiya - Ethulkotte around 9th Lane |
| 339 | Colombo | Kotte MC | Athulkotte, 9th Lane |
| 340 | Colombo | Kotte MC | Nugegoda Junction - near round about |
| 340 | Colombo | Kotte MC | Nugegoda Junction - near round about |
| 417 | Colombo | Kotte MC | 2nd land off Koswatta (Gorokgahawatta) |
| 417 | Colombo | Kotte MC | 2nd land off Koswatta (Gorokgahawatta) |
| 417 | Colombo | Kotte MC | 2nd land off Koswatta (Gorokgahawatta) |
| 418 | Colombo | Kotte MC | Pitakotte East |
| 418 | Colombo | Kotte MC | Pitakotte East |
| 418 | Colombo | Kotte MC | end of Duwa Road off Pitakotte |
| 348 | Colombo | Maharagama PS | Welsiripura |
| 348 | Colombo | Maharagama PS | Welsiripura |
| 349 | Colombo | Maharagama PS | Delgawatta Road |
| 349 | Colombo | Maharagama PS | Delgawatta Road |
| 350 | Colombo | Maharagama PS | Walawwatta Road |
| 350 | Colombo | Maharagama PS | Walawwatta Road |
| 350 | Colombo | Maharagama PS | Walawwatta Road, close to Delkanda Junc |
| 351 | Colombo | Maharagama PS | Welayaya Road between Nawinna Junction and Wijerama Junction, Welayaya Road upto Pasal Mw |
| 351 | Colombo | Maharagama PS | Welayaya Road between Nawinna Junction and Wijerama Junction, Welayaya Road upto Pasal Mw |
| 352 | Colombo | Maharagama PS | Janatha Road (access from Nawinna Junction) |
| 352 | Colombo | Maharagama PS | Janatha Road (access from Nawinna Junction) |
| 353 | Colombo | Maharagama PS | Raththanapitiya Area near to Raththanapitiya Junction |
| 353 | Colombo | Maharagama PS | Raththanapitiya Area near to Raththanapitiya Junction |
| 353 | Colombo | Maharagama PS | Ratnapitiya Area near junc |
| 422 | Colombo | Maharagama PS | Mirihana North |
| 422 | Colombo | Maharagama PS | Mirihana North |
| 423 | Colombo | Maharagama PS | Udahamulla East |
| 423 | Colombo | Maharagama PS | Udahamulla East |
| 423 | Colombo | Maharagama PS | Udahamulla East |
| 424 | Colombo | Maharagama PS | Mirihana South, Buwanekaba Mawatha |
| 424 | Colombo | Maharagama PS | Mirihana South, Buwanekaba Mawatha |
| 424 | Colombo | Maharagama PS | Mirihana South, Buwanekaba Mawatha |
| 425 | Colombo | Maharagama PS | Rubber Watta close to Imbugahawatta Area off Old Kesbewa Road |
| 425 | Colombo | Maharagama PS | Rubber Watta close to Imbugahawatta Area off Old Kesbewa Road |
| 425 | Colombo | Maharagama PS | Rubber Watta close to Imbugahawatta Area off Old Kesbewa Road |
| 426 | Colombo | Maharagama PS | Kattiva Junc off Gangodavila North |
| 426 | Colombo | Maharagama PS | Kattiva Junc off Gangodavila North |
| 427 | Colombo | Maharagama PS | Gangodavila South, Pepiliyana Road |
| 427 | Colombo | Maharagama PS | Gangodavila South, Pepiliyana Road |
| 261 | Colombo | Moratuwa MC | Borupana |
| 261 | Colombo | Moratuwa MC | Borupana |
| 261 | Colombo | Moratuwa MC | Borupana |

3. List of Questionnaire Survey Locations (11/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|----------------|------------------------------------|
| 262 | Colombo | Moratuwa MC | Kaldemulla |
| 262 | Colombo | Moratuwa MC | Kaldemulla |
| 262 | Colombo | Moratuwa MC | Kaldemulla |
| 263 | Colombo | Moratuwa MC | Lakshapathiya |
| 263 | Colombo | Moratuwa MC | Lakshapathiya |
| 263 | Colombo | Moratuwa MC | Lakshapathiya |
| 264 | Colombo | Moratuwa MC | Telawala |
| 264 | Colombo | Moratuwa MC | Telawala |
| 264 | Colombo | Moratuwa MC | Telawala |
| 265 | Colombo | Moratuwa MC | Katubedda |
| 265 | Colombo | Moratuwa MC | Katubedda |
| 265 | Colombo | Moratuwa MC | Katubedda |
| 266 | Colombo | Moratuwa MC | Rawatawatta |
| 266 | Colombo | Moratuwa MC | Rawatawatta |
| 266 | Colombo | Moratuwa MC | Rawatawatta |
| 267 | Colombo | Moratuwa MC | Moratumulla |
| 267 | Colombo | Moratuwa MC | Moratumulla |
| 267 | Colombo | Moratuwa MC | Idama Rawathawatha |
| 268 | Colombo | Moratuwa MC | Idamana |
| 268 | Colombo | Moratuwa MC | Idamana |
| 268 | Colombo | Moratuwa MC | Idamana |
| 269 | Colombo | Moratuwa MC | Uyana |
| 269 | Colombo | Moratuwa MC | Uyana |
| 269 | Colombo | Moratuwa MC | Uyana |
| 270 | Colombo | Moratuwa MC | Koralawella - Moses Place |
| 270 | Colombo | Moratuwa MC | Koralawella |
| 271 | Colombo | Moratuwa MC | Katururunda Joseph Place |
| 271 | Colombo | Moratuwa MC | Koralawella |
| 365 | Kalutara | Bandaragama PS | Gadambe Road, Bandaragama |
| 365 | Kalutara | Bandaragama PS | Gadambe Road, Bandaragama |
| 366 | Kalutara | Bandaragama PS | Kindelpitiya Kahatawela |
| 366 | Kalutara | Bandaragama PS | Kindelpitiya Kahatawela |
| 367 | Kalutara | Bandaragama PS | Hirana Thotupola |
| 367 | Kalutara | Bandaragama PS | Hirana Thotupola |
| 368 | Kalutara | Bandaragama PS | Atalugama |
| 368 | Kalutara | Bandaragama PS | Atalugama |
| 369 | Kalutara | Bandaragama PS | Maha Arukgoda |
| 369 | Kalutara | Bandaragama PS | |
| 370 | Kalutara | Bandaragama PS | Maha Arukgoda West |
| 370 | Kalutara | Bandaragama PS | Kuda Arukgoda West |
| 371 | Kalutara | Bandaragama PS | Batadombathudawa |
| 371 | Kalutara | Bandaragama PS | Batadombathudawa |
| 372 | Kalutara | Bandaragama PS | Alubomulla |
| 372 | Kalutara | Bandaragama PS | Alubomulla Pamunugama |
| 373 | Kalutara | Bandaragama PS | Rammukkana North |
| 373 | Kalutara | Bandaragama PS | Rammukkana |
| 374 | Kalutara | Bandaragama PS | Bolgoda Bridge |
| 374 | Kalutara | Bandaragama PS | Bolgoda Bridge |
| 380 | Kalutara | Bandaragama PS | Imbul Iha |
| 380 | Kalutara | Bandaragama PS | Imbul Iha |
| 381 | Kalutara | Bandaragama PS | Pamunugama |
| 381 | Kalutara | Bandaragama PS | Pamunugama |
| 382 | Kalutara | Bandaragama PS | Digana Thuduwa |
| 382 | Kalutara | Bandaragama PS | Digana Thuduwa |
| 384 | Kalutara | Bandaragama PS | Kolamediriya |
| 384 | Kalutara | Bandaragama PS | Kolamediriya |
| 385 | Kalutara | Bandaragama PS | Panape, Millaniya |
| 385 | Kalutara | Bandaragama PS | Panape, Millaniya |
| 386 | Kalutara | Bandaragama PS | Averiya Watta |
| 386 | Kalutara | Bandaragama PS | Averiya Watta |
| 387 | Kalutara | Bandaragama PS | Ballantuduwa |
| 388 | Kalutara | Bandaragama PS | Haltota |
| 388 | Kalutara | Bandaragama PS | Haltota Raigama Anguruwathota Road |
| 390 | Kalutara | Bandaragama PS | Kimmanthudawa, Sri Sumanajoti Pura |
| 390 | Kalutara | Bandaragama PS | Kimmanthudawa, Sri Sumanajoti Pura |
| 391 | Kalutara | Bandaragama PS | Delkanda |
| 392 | Kalutara | Bandaragama PS | Panape, Millaniya |
| 375 | Kalutara | Dodangoda PS | Alubaddavila |
| 375 | Kalutara | Dodangoda PS | Gungamuwa |
| 377 | Kalutara | Dodangoda PS | Labugama - Welikala Road |
| 377 | Kalutara | Dodangoda PS | Labugama - Welikala Road |
| 377 | Kalutara | Dodangoda PS | Mahabellana - Maha Watta |
| 377 | Kalutara | Dodangoda PS | Mahabellana - Maha Watta |
| 383 | Kalutara | Dodangoda PS | Palpola |
| 383 | Kalutara | Dodangoda PS | Palpola |
| 387 | Kalutara | Dodangoda PS | Ballantuduwa Malwatta Road |
| 389 | Kalutara | Dodangoda PS | Okkanduwa Panape Road |
| 389 | Kalutara | Dodangoda PS | Okkanduwa Panape Road |
| 391 | Kalutara | Dodangoda PS | Delkanda |
| 392 | Kalutara | Dodangoda PS | Katagoda Millaniya Road |
| 393 | Kalutara | Dodangoda PS | Mulkadananda Road |
| 393 | Kalutara | Dodangoda PS | Mulkadekanda |

3. List of Questionnaire Survey Locations (12/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|--------------|----------------------------|
| 394 | Kalutara | Dodangoda PS | Liyanagoda |
| 394 | Kalutara | Dodangoda PS | Palpola Liyanagoda |
| 395 | Kalutara | Dodangoda PS | Batagoda Kananthudawa Road |
| 395 | Kalutara | Dodangoda PS | Batagoda Kananthudawa Road |
| 396 | Kalutara | Dodangoda PS | Punsiripura |
| 396 | Kalutara | Dodangoda PS | Punsiripura |
| 397 | Kalutara | Dodangoda PS | Manana Galpatha |
| 397 | Kalutara | Dodangoda PS | Manana Galpatha |
| 398 | Kalutara | Dodangoda PS | Batagoda Kananthudawa Road |
| 398 | Kalutara | Dodangoda PS | Batagoda |
| 400 | Kalutara | Dodangoda PS | Panagoda |
| 400 | Kalutara | Dodangoda PS | Galpatha Indiland |
| 306 | Kalutara | Kalutara PS | Desastra |
| 306 | Kalutara | Kalutara PS | Desastra |
| 307 | Kalutara | Kalutara PS | Widyasara |
| 307 | Kalutara | Kalutara PS | Widyasara |
| 308 | Kalutara | Kalutara PS | Nan Doowa |
| 308 | Kalutara | Kalutara PS | Nan Doowa |
| 309 | Kalutara | Kalutara PS | Chummi Pura |
| 309 | Kalutara | Kalutara PS | Chummi Pura |
| 310 | Kalutara | Kalutara PS | Kudawaskaduwa West |
| 310 | Kalutara | Kalutara PS | Kudawaskaduwa West |
| 311 | Kalutara | Kalutara PS | Nugagoda Watta |
| 311 | Kalutara | Kalutara PS | Nugagoda Watta |
| 312 | Kalutara | Kalutara PS | Thotupala |
| 312 | Kalutara | Kalutara PS | Thotupala |
| 313 | Kalutara | Kalutara PS | Paraduwa |
| 313 | Kalutara | Kalutara PS | Paraduwa |
| 314 | Kalutara | Kalutara PS | Diyagama |
| 314 | Kalutara | Kalutara PS | Diyagama |
| 315 | Kalutara | Kalutara PS | Dodammulla |
| 315 | Kalutara | Kalutara PS | Dodammulla |
| 316 | Kalutara | Kalutara PS | Thalawwa |
| 316 | Kalutara | Kalutara PS | Thalawwa |
| 317 | Kalutara | Kalutara PS | Galkanda |
| 317 | Kalutara | Kalutara PS | Galkanda |
| 318 | Kalutara | Kalutara PS | Pohoddaramulla |
| 318 | Kalutara | Kalutara PS | Pohoddaramulla |
| 319 | Kalutara | Kalutara PS | Pothupitiya West |
| 319 | Kalutara | Kalutara PS | Pothupitiya West |
| 320 | Kalutara | Kalutara PS | Uggalbada West |
| 320 | Kalutara | Kalutara PS | Uggalbada West |
| 278 | Kalutara | Panadura PS | Molligoda Coastal Area |
| 278 | Kalutara | Panadura PS | Molligoda Coastal Area |
| 280 | Kalutara | Panadura PS | Horeithuduwa North |
| 280 | Kalutara | Panadura PS | Horithuduwa |
| 281 | Kalutara | Panadura PS | Gorakana |
| 281 | Kalutara | Panadura PS | Gorakana |
| 282 | Kalutara | Panadura PS | Diggala |
| 282 | Kalutara | Panadura PS | Diggala |
| 283 | Kalutara | Panadura PS | Sarikkammulla |
| 283 | Kalutara | Panadura PS | Sarikkammulla |
| 284 | Kalutara | Panadura PS | Keselwatta |
| 284 | Kalutara | Panadura PS | Keselwatta |
| 285 | Kalutara | Panadura PS | Pallimulla |
| 285 | Kalutara | Panadura PS | Henamulla |
| 286 | Kalutara | Panadura PS | Pattiva |
| 286 | Kalutara | Panadura PS | Pattiva |
| 287 | Kalutara | Panadura PS | Thalpitiya South |
| 287 | Kalutara | Panadura PS | Thalpitiya South |
| 288 | Kalutara | Panadura PS | Kaludewala |
| 288 | Kalutara | Panadura PS | Kaludewala |
| 289 | Kalutara | Panadura PS | Morawinna Medawella |
| 289 | Kalutara | Panadura PS | Morawinna Medawella |
| 290 | Kalutara | Panadura PS | Malamulla & Malamulla West |
| 290 | Kalutara | Panadura PS | Malamulla & Malamulla West |
| 291 | Kalutara | Panadura PS | Bekkegama |
| 291 | Kalutara | Panadura PS | Bekkegama |
| 292 | Kalutara | Panadura PS | Ambalanduwa |
| 292 | Kalutara | Panadura PS | Ambalanduwa |
| 293 | Kalutara | Panadura PS | Narampitiya |
| 293 | Kalutara | Panadura PS | Narampitiya |
| 294 | Kalutara | Panadura PS | Palliyamankada |
| 294 | Kalutara | Panadura PS | Palliyamankada |
| 295 | Kalutara | Panadura PS | Mahawadduwa |
| 295 | Kalutara | Panadura PS | Mahawadduwa |
| 296 | Kalutara | Panadura PS | Patti Eliya |
| 296 | Kalutara | Panadura PS | Patti Eliya |
| 297 | Kalutara | Panadura PS | Molligoda North |
| 297 | Kalutara | Panadura PS | Molligoda North |
| 298 | Kalutara | Panadura PS | Ardin Forest |
| 298 | Kalutara | Panadura PS | Ardin Forest |

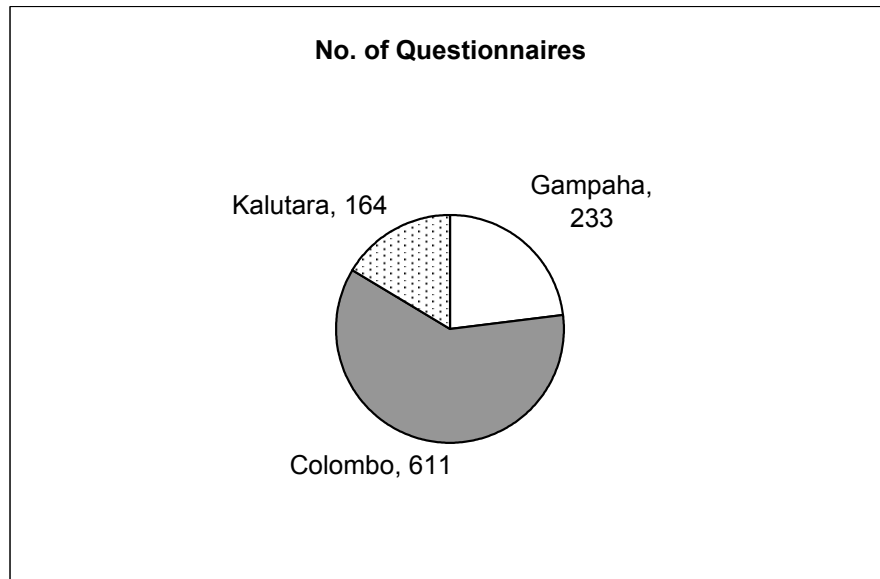
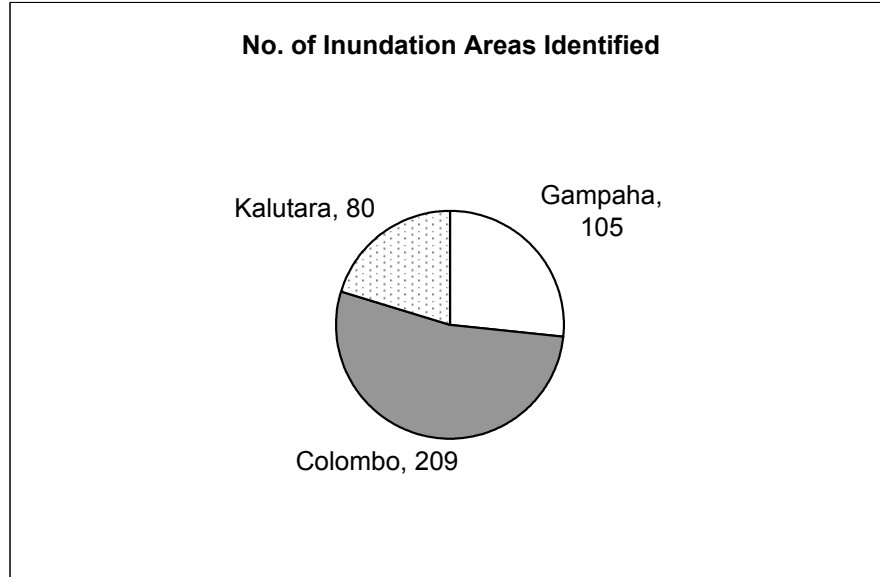
3. List of Questionnaire Survey Locations (13/13)

| Inundation Area No. | Name of District | Name of LA | Name of Area |
|---------------------|------------------|-------------|------------------------|
| 299 | Kalutara | Panadura PS | Weeragama |
| 299 | Kalutara | Panadura PS | Weeragama |
| 300 | Kalutara | Panadura PS | Moronthuduwa |
| 300 | Kalutara | Panadura PS | Moronthuduwa |
| 301 | Kalutara | Panadura PS | Madawilgoda |
| 301 | Kalutara | Panadura PS | Madawilgoda |
| 302 | Kalutara | Panadura PS | Daladawatta |
| 302 | Kalutara | Panadura PS | Daladawatta |
| 303 | Kalutara | Panadura PS | Thanthirimulla |
| 303 | Kalutara | Panadura PS | Thanthirimulla |
| 304 | Kalutara | Panadura PS | Mahavihara Road |
| 304 | Kalutara | Panadura PS | Mahavihara Road |
| 305 | Kalutara | Panadura PS | Kudawaskaduwa Junction |
| 305 | Kalutara | Panadura PS | Kudawaskaduwa Junction |
| 272 | Kalutara | Panadura UC | Pallimulla |
| 272 | Kalutara | Panadura UC | Pallimulla |
| 273 | Kalutara | Panadura UC | Goracapola |
| 273 | Kalutara | Panadura UC | Goracapola |
| 274 | Kalutara | Panadura UC | Panadura Town Center |
| 274 | Kalutara | Panadura UC | Panadura Town Center |
| 275 | Kalutara | Panadura UC | Pattiya South |
| 275 | Kalutara | Panadura UC | Pattiya South |
| 276 | Kalutara | Panadura UC | Walapola |
| 276 | Kalutara | Panadura UC | Walapola |
| 276 | Kalutara | Panadura UC | Dibbedda |
| 276 | Kalutara | Panadura UC | Dibbedda |
| 279 | Kalutara | Panadura UC | Nalluruwa |
| 279 | Kalutara | Panadura UC | Nalluruwa |

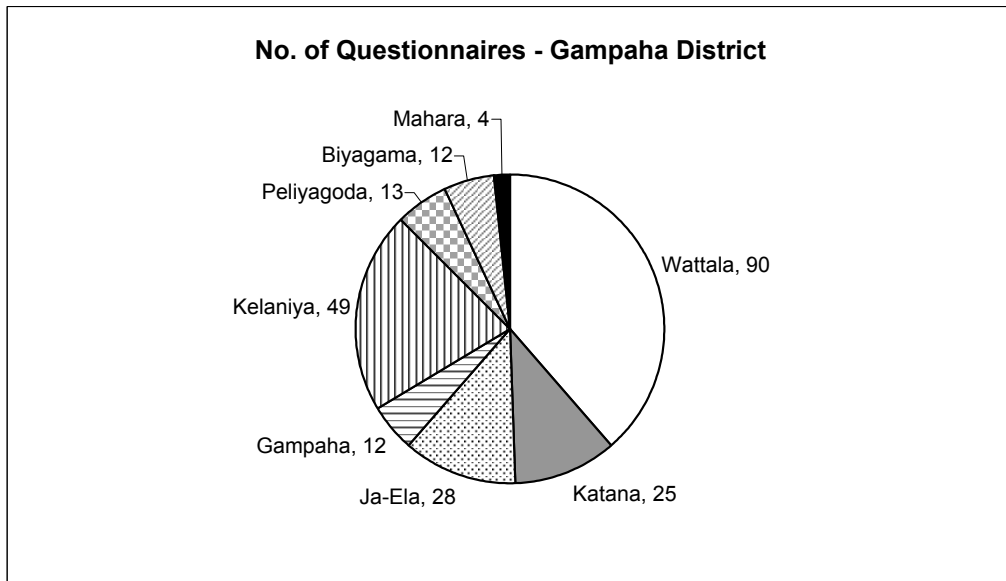
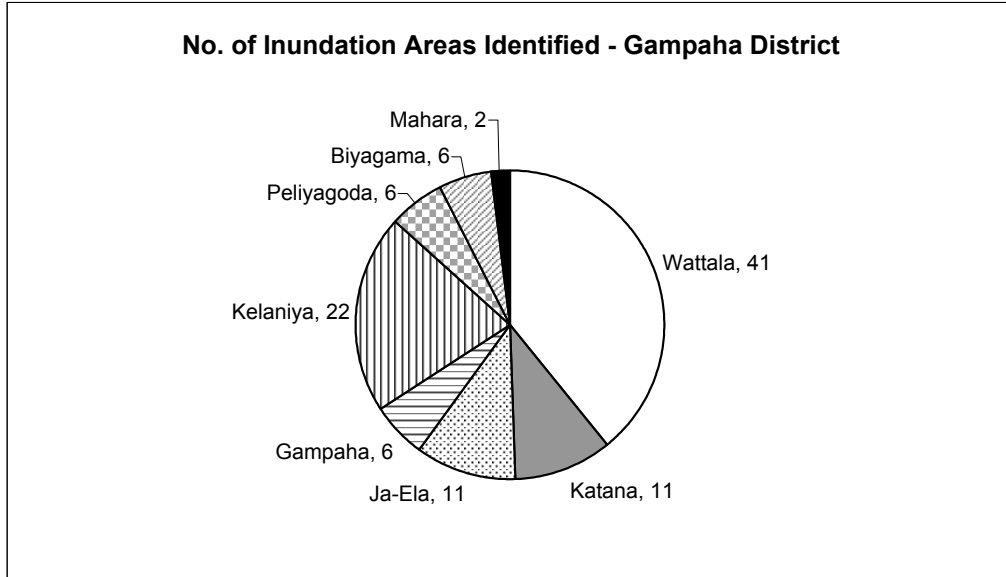
4. Identified Inundation Areas and Questionnaires

| Study Area | District | | No. of Locations | No. of Questionnaires | |
|--------------------|------------------|------------------|------------------|-----------------------|------------|
| | Gampaha | | 105 | 233 | |
| | Colombo | | 209 | 611 | |
| | Kalutara | | 80 | 164 | |
| | Total | | 394 | 1008 | |
| By District | District | Division | No. of Locations | No. of Questionnaires | |
| | Gampaha | Wattala | 41 | 90 | |
| | | Katana | 11 | 25 | |
| | | Ja-Ela | 11 | 28 | |
| | | Gampaha | 6 | 12 | |
| | | Kelaniya | 22 | 49 | |
| | | Peliyagoda | 6 | 13 | |
| | | Biyagama | 6 | 12 | |
| | | Mahara | 2 | 4 | |
| | | <u>Sub-total</u> | | <u>105</u> | <u>233</u> |
| | | Colombo | Colombo | 135 | 423 |
| | Moratuwa | | 11 | 31 | |
| | Kolonnawa | | 14 | 37 | |
| | Nugegoda | | 9 | 23 | |
| | Maharagama | | 12 | 29 | |
| | Kesbewa | | 11 | 30 | |
| | Kaduwela | | 8 | 20 | |
| | Homagama | | 9 | 18 | |
| | <u>Sub-total</u> | | | <u>209</u> | <u>611</u> |
| | Kalutara | | Panadura | 33 | 68 |
| | | Kalutara | 15 | 30 | |
| | | Bandaragama | 19 | 38 | |
| | | Milleniya | 13 | 28 | |
| | | <u>Sub-total</u> | | <u>80</u> | <u>164</u> |
| | Total | | 394 | 1008 | |

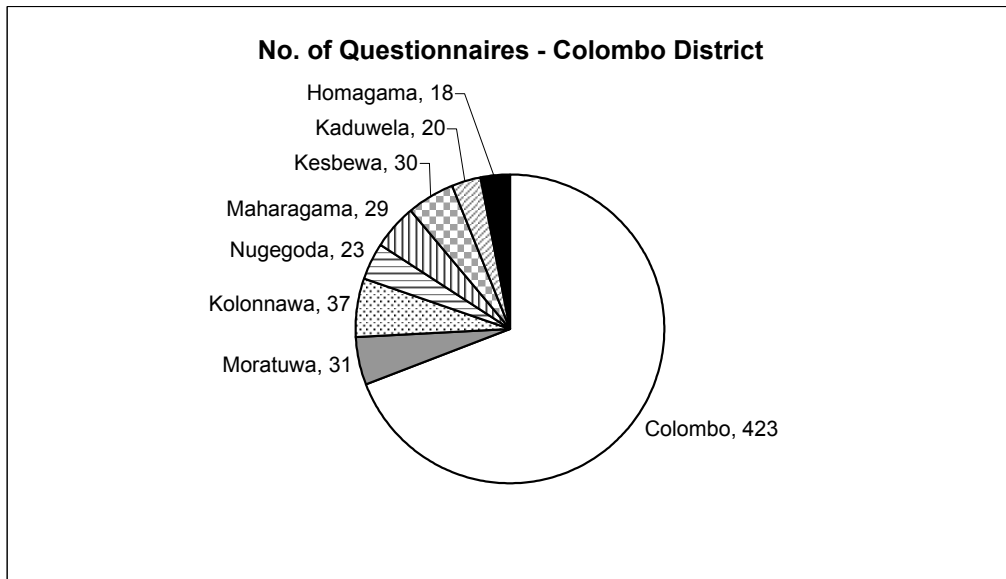
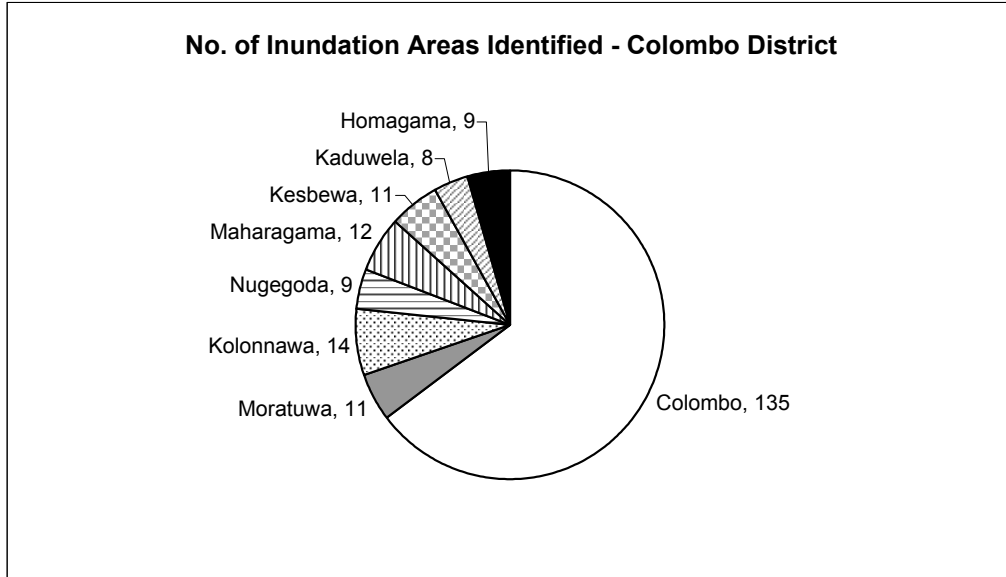
5. Identified Inundation Areas and Questionnaires by District



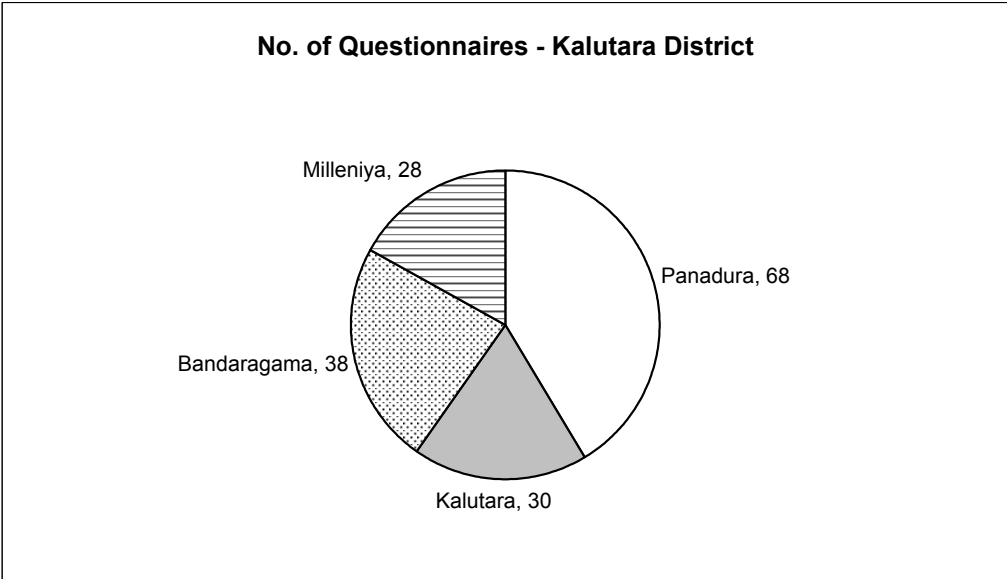
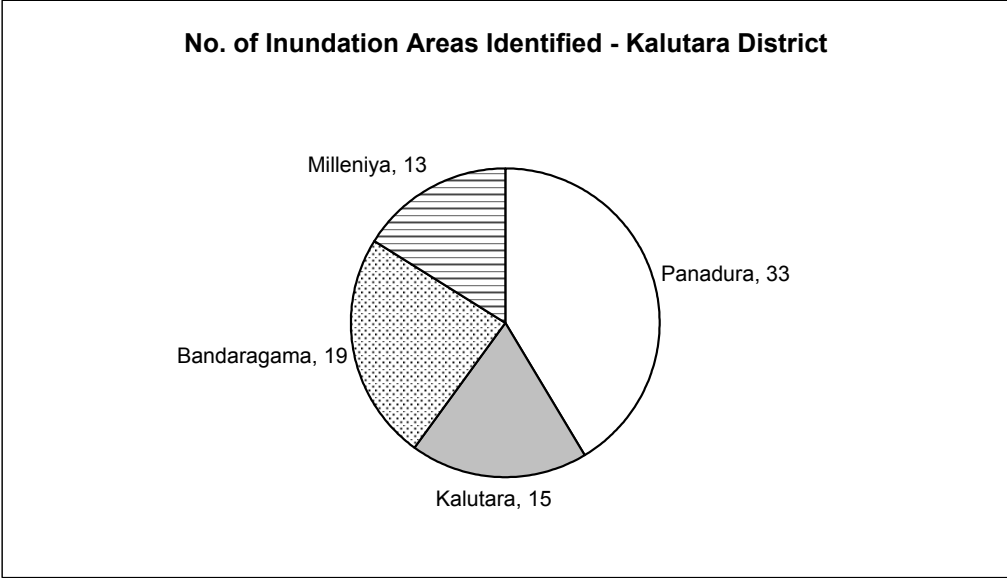
**6. Identified Inundation Areas and Questionnaires by Local Authority
Gampaha District**



**7. Identified Inundation Areas and Questionnaires by Local Authority
Colombo District**



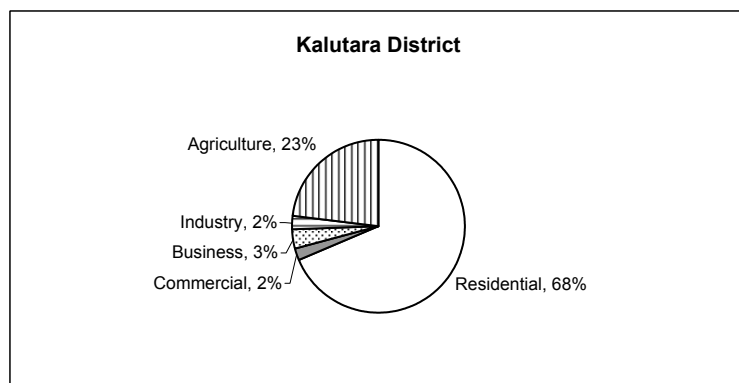
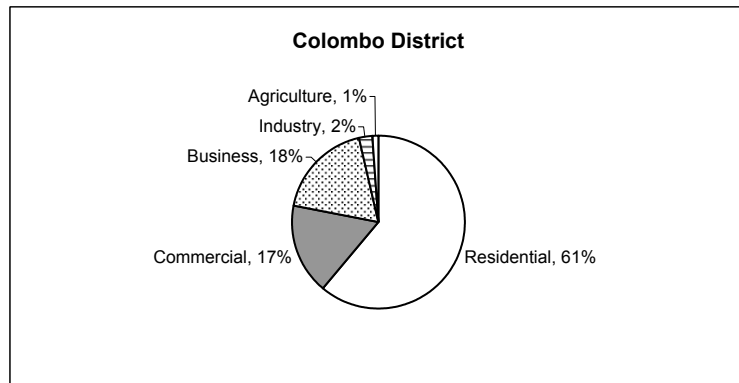
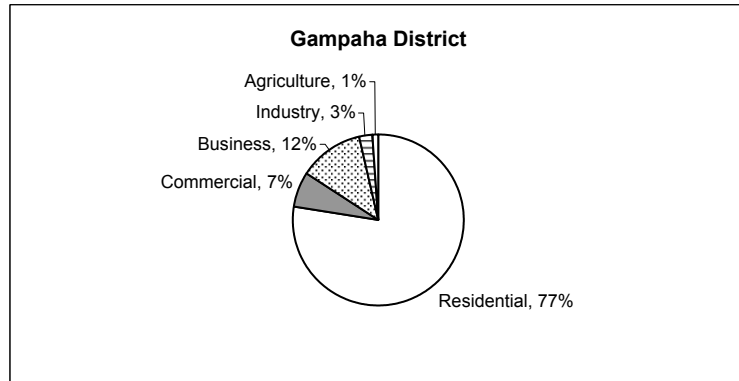
**8. Identified Inundation Areas and Questionnaires by Local Authority
Kalutara District**



9. Observation of Identified Inundation Areas Area Classification

Area Classification

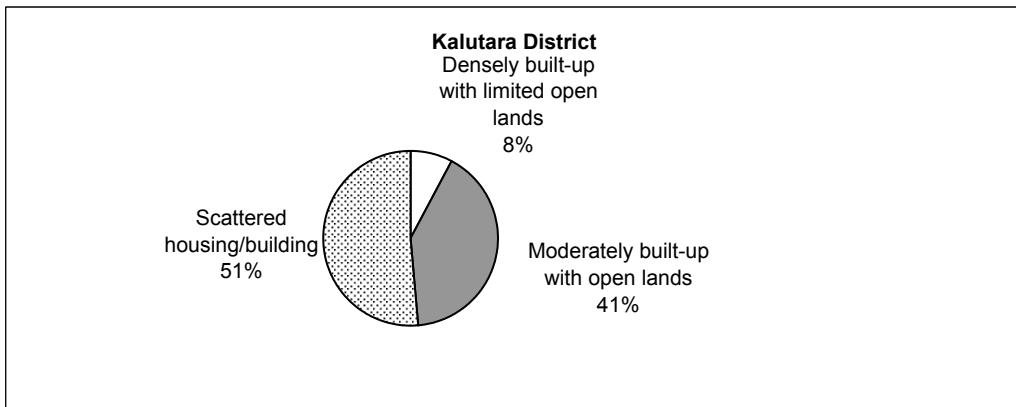
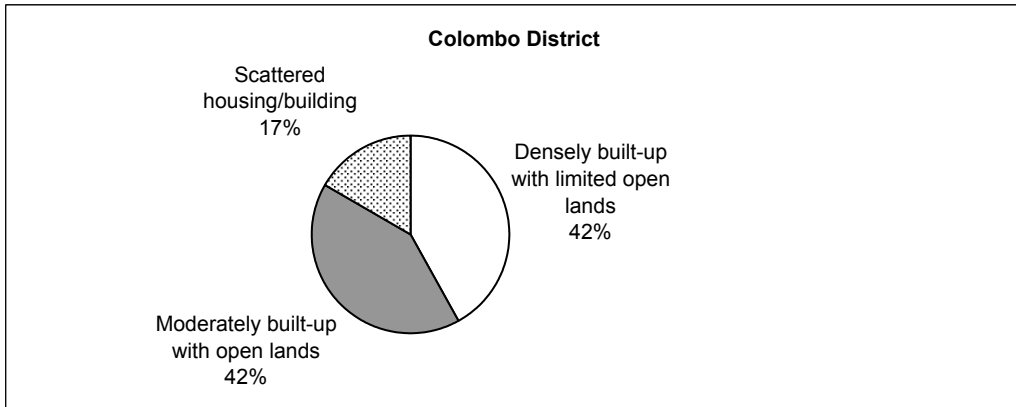
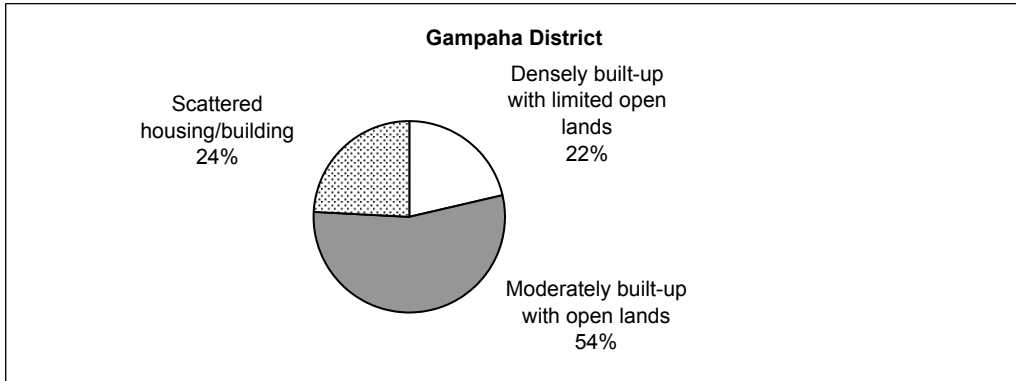
| District | Residential | Commercial | Business | Industry | Agriculture | Total |
|----------|-------------|------------|----------|----------|-------------|-------|
| Gampaha | 77% | 7% | 12% | 3% | 1% | 100% |
| Colombo | 61% | 17% | 18% | 2% | 1% | 100% |
| Kalutara | 68% | 2% | 3% | 2% | 23% | 100% |
| Total | 66% | 12% | 14% | 2% | 5% | 100% |



**10. Observations of Identified Inundation Areas
Density of Housing/Building**

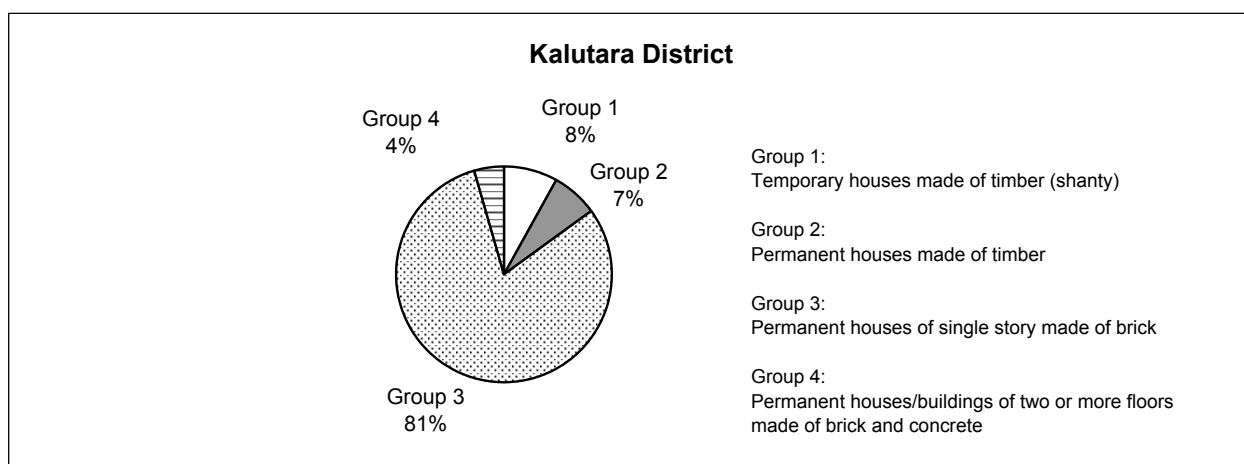
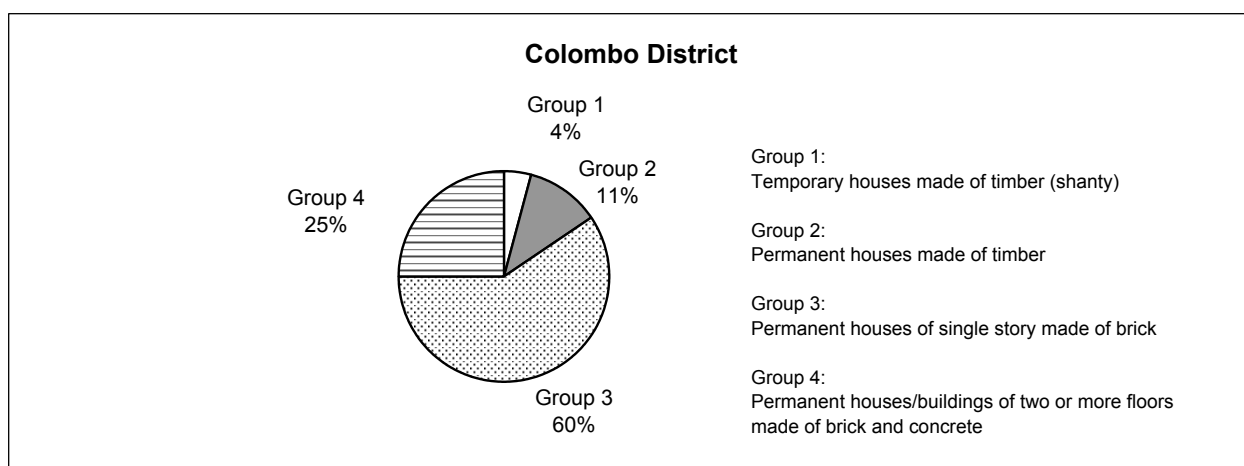
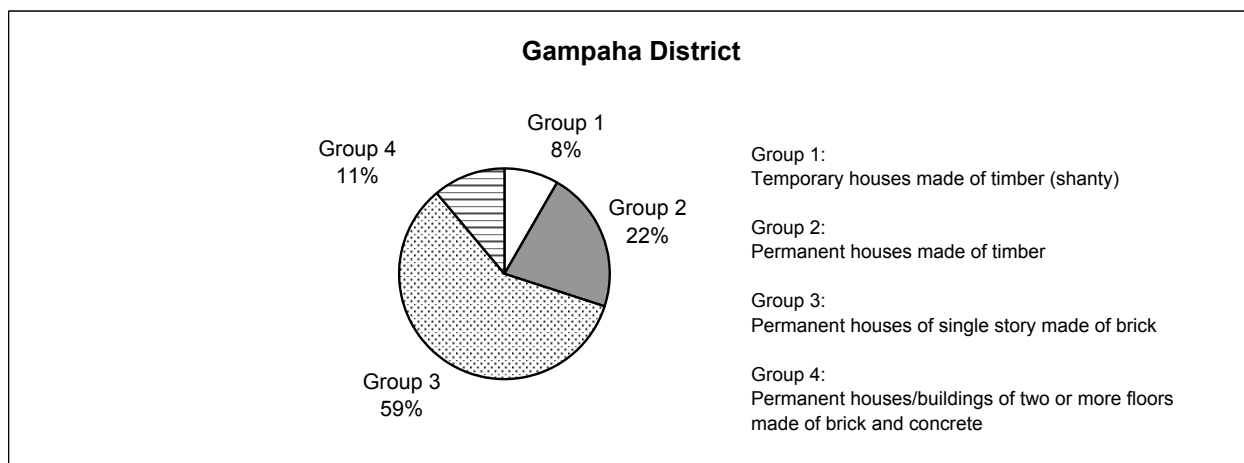
Housing/Building

| District | Densely built-up with limited open lands | Moderately built-up with open lands | Scattered housing/building | Total |
|----------|--|-------------------------------------|----------------------------|-------|
| Gampaha | 22% | 54% | 24% | 100% |
| Colombo | 42% | 42% | 17% | 100% |
| Kalutara | 8% | 41% | 51% | 100% |
| Total | 32% | 44% | 23% | 100% |



11. Observations of Identified Inundation Areas Prevailing Houses/Buildings

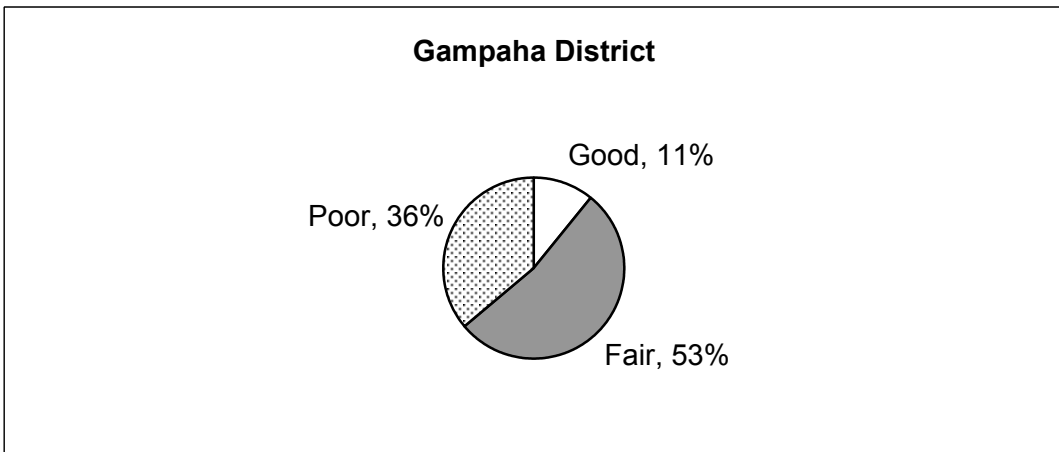
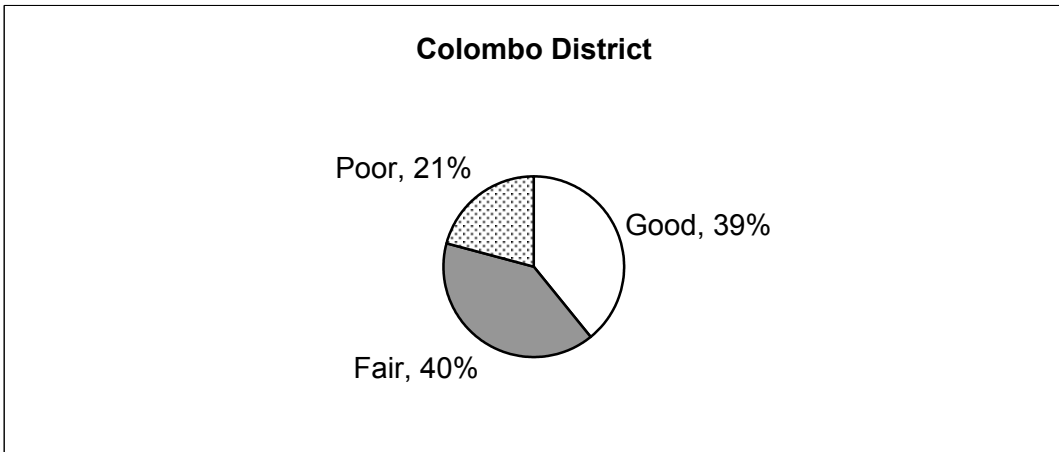
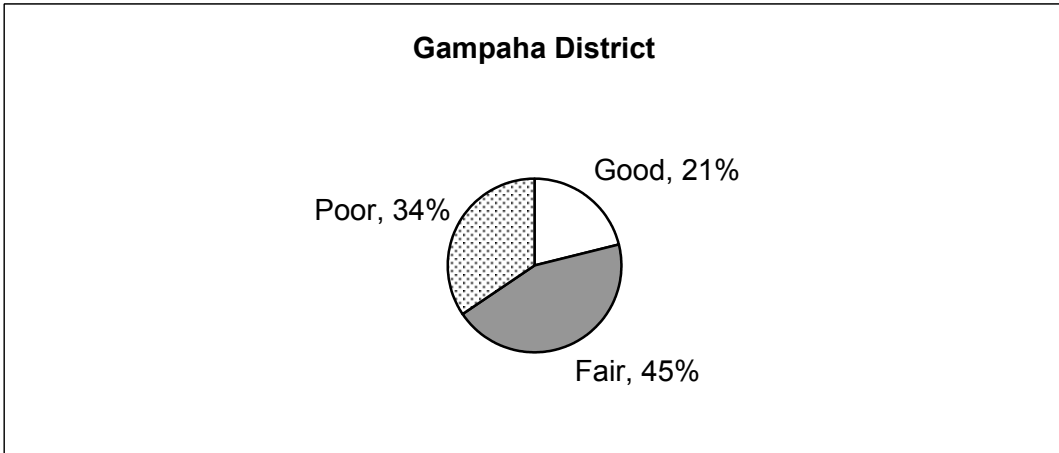
| District | Group 1 | Group 2 | Group 3 | Group 4 | Total |
|----------|---------|---------|---------|---------|-------|
| Gampaha | 8% | 22% | 59% | 11% | 100% |
| Colombo | 4% | 11% | 60% | 25% | 100% |
| Kalutara | 8% | 7% | 81% | 4% | 100% |
| Total | 6% | 13% | 62% | 19% | 100% |



**12. Observations of Identified Inundation Areas
Conditions of Infrastructure (Road)**

Road

| District | Good | Fair | Poor | Total |
|----------|------|------|------|-------|
| Gampaha | 21% | 45% | 34% | 100% |
| Colombo | 39% | 40% | 21% | 100% |
| Kalutara | 11% | 53% | 36% | 100% |
| Total | 30% | 43% | 26% | 100% |

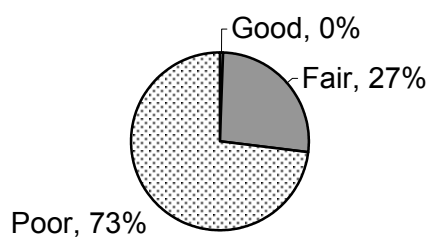


13. Observations of Identified Inundation Areas Conditions of Infrastructure (Drainage)

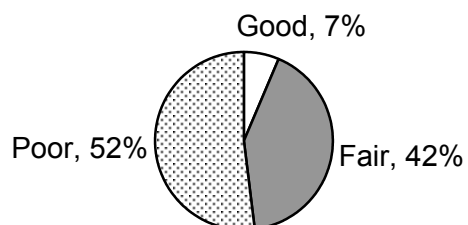
Drainage

| District | Good | Fair | Poor | Total |
|----------|------|------|------|-------|
| Gampaha | 0% | 27% | 73% | 100% |
| Colombo | 7% | 42% | 52% | 100% |
| Kalutara | 3% | 29% | 69% | 100% |
| Total | 5% | 36% | 59% | 100% |

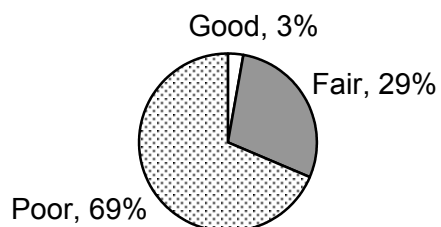
Gampaha District



Colombo District



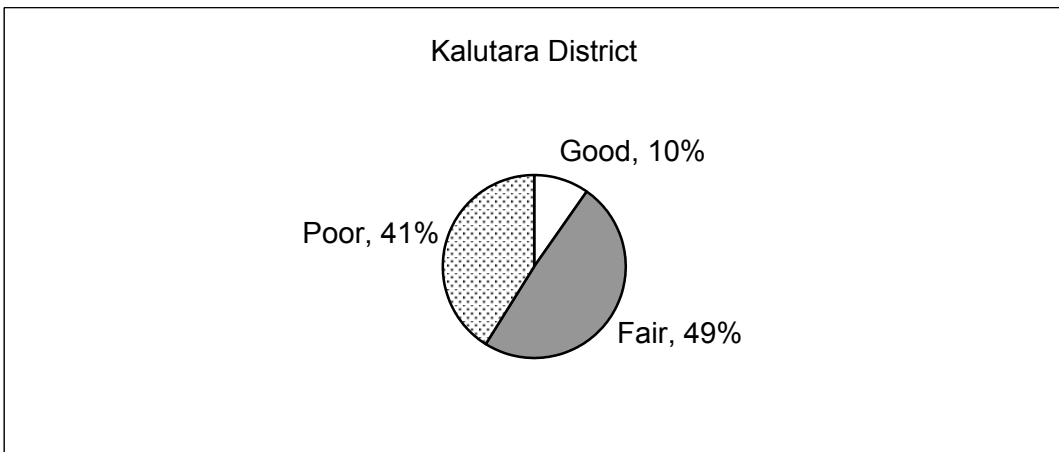
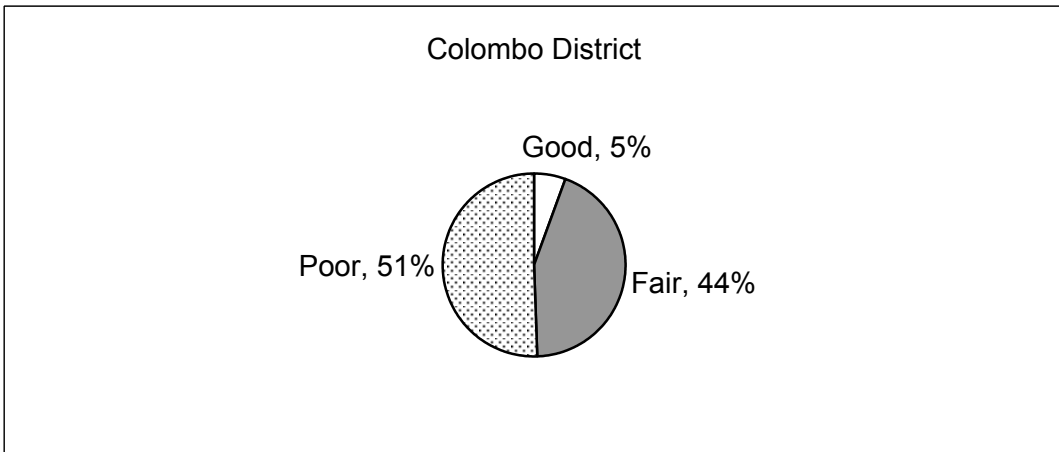
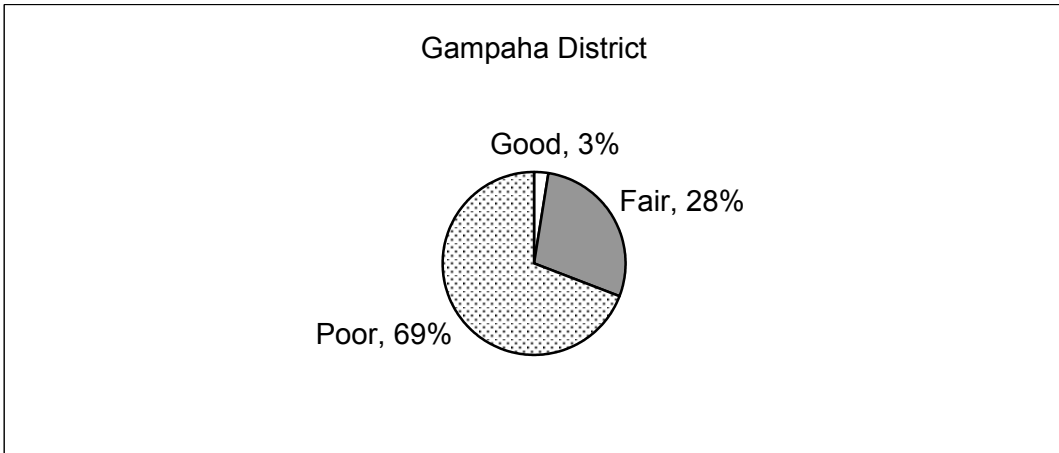
Kalutara District



**14. Observations of Identified Inundation Areas
Conditions of Infrastructure (Wastewater Disposal)**

Wastewater Disposal

| District | Good | Fair | Poor | Total |
|----------|------|------|------|-------|
| Gampaha | 3% | 28% | 69% | 100% |
| Colombo | 5% | 44% | 51% | 100% |
| Kalutara | 10% | 49% | 41% | 100% |
| Total | 5% | 41% | 54% | 100% |

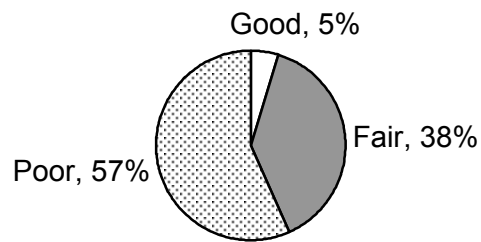


**15. Observations of Identified Inundation Areas
Conditions of Infrastructure (Garbage Collection)**

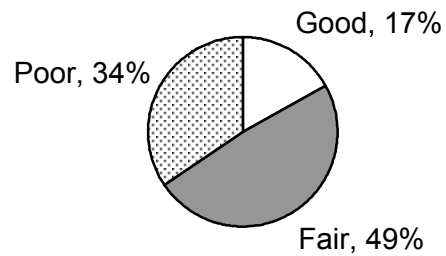
Garbage Collection

| District | Good | Fair | Poor | Total |
|----------|------|------|------|-------|
| Gampaha | 5% | 38% | 57% | 100% |
| Colombo | 17% | 49% | 34% | 100% |
| Kalutara | 23% | 35% | 42% | 100% |
| Total | 15% | 44% | 41% | 100% |

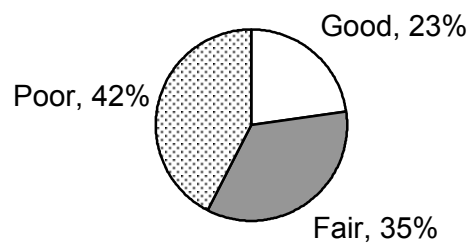
Gampaha District



Colombo District



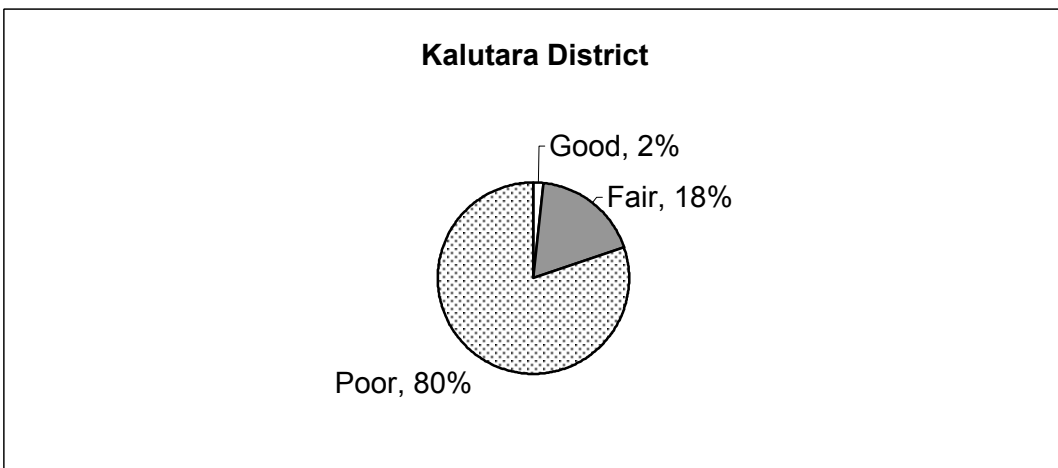
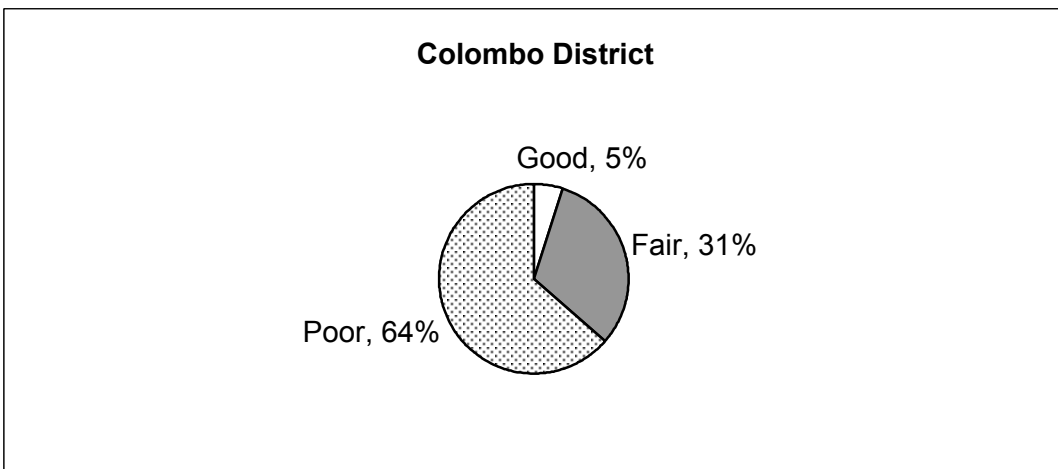
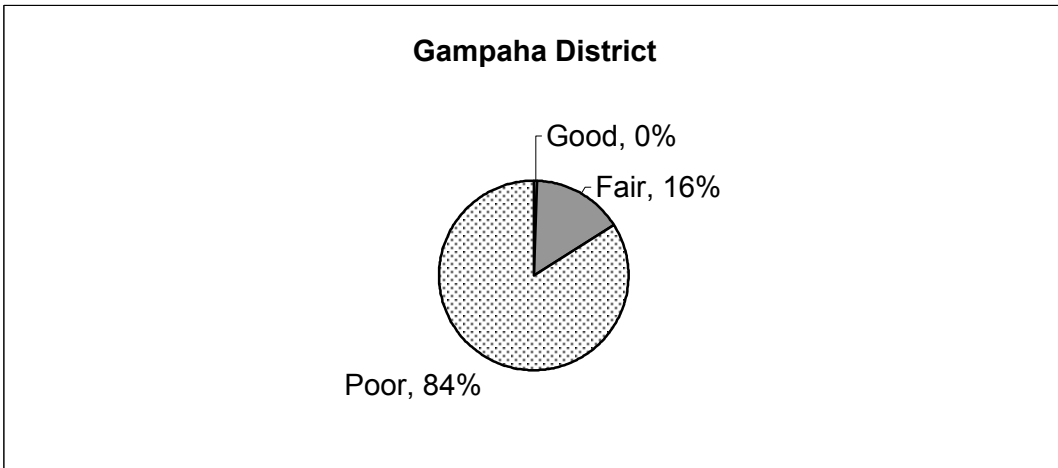
Kalutara District



**16. Observations of Identified Inundation Areas
Conditions of Infrastructure (Canal Maintenance)**

Canal Maintenance

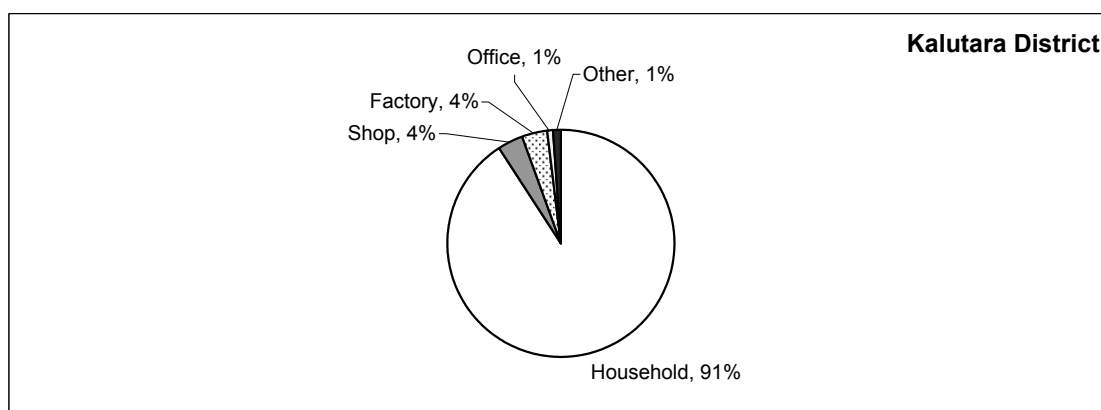
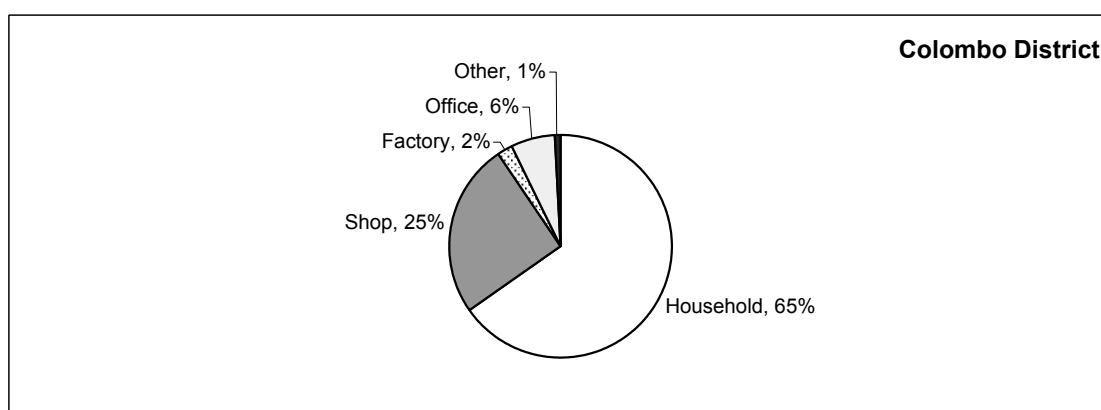
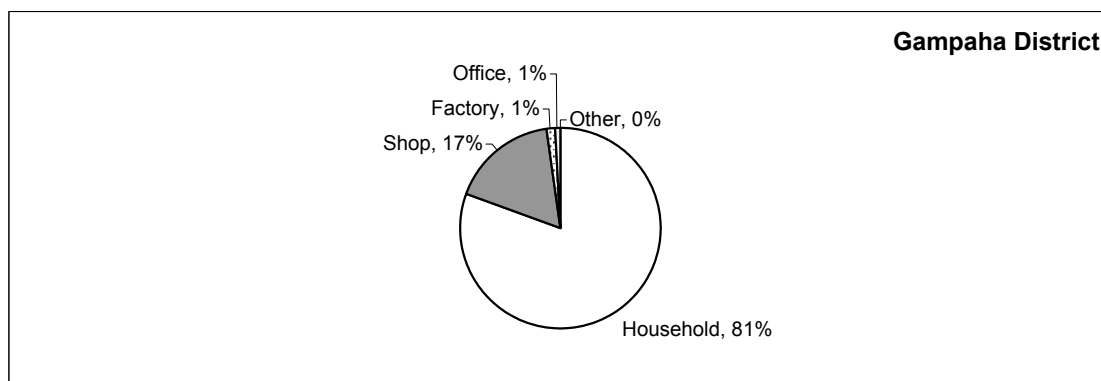
| District | Good | Fair | Poor | Total |
|----------|------|------|------|-------|
| Gampaha | 0% | 16% | 84% | 100% |
| Colombo | 5% | 31% | 64% | 100% |
| Kalutara | 2% | 18% | 80% | 100% |
| Total | 3% | 25% | 71% | 100% |



17. Interviewee

Interviewee

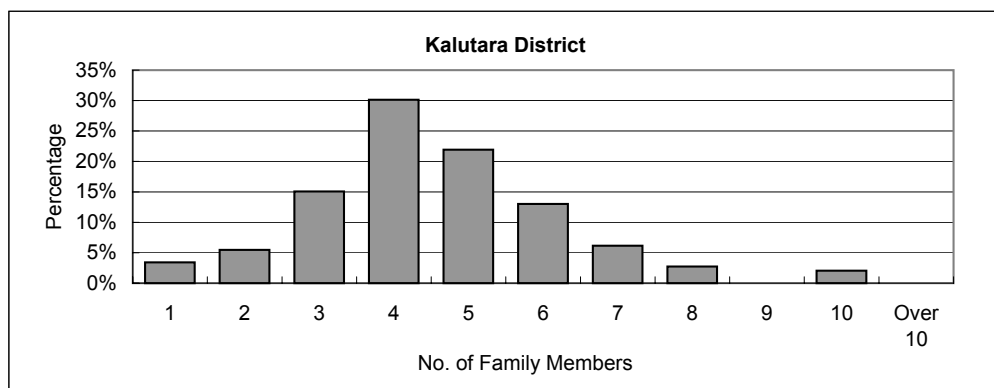
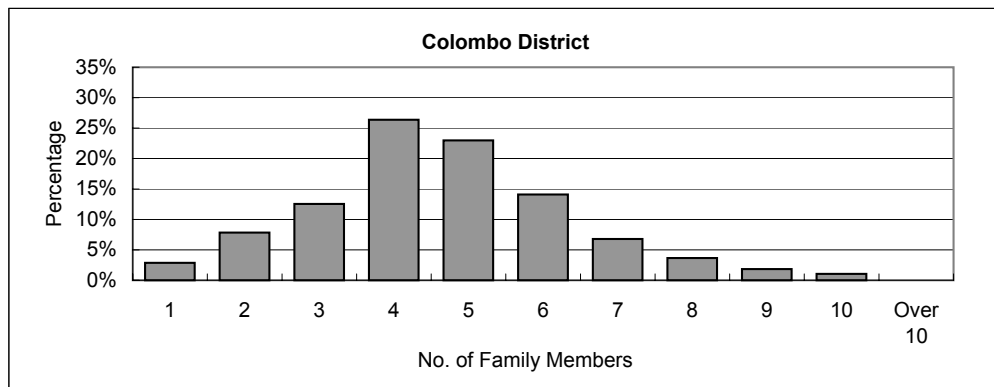
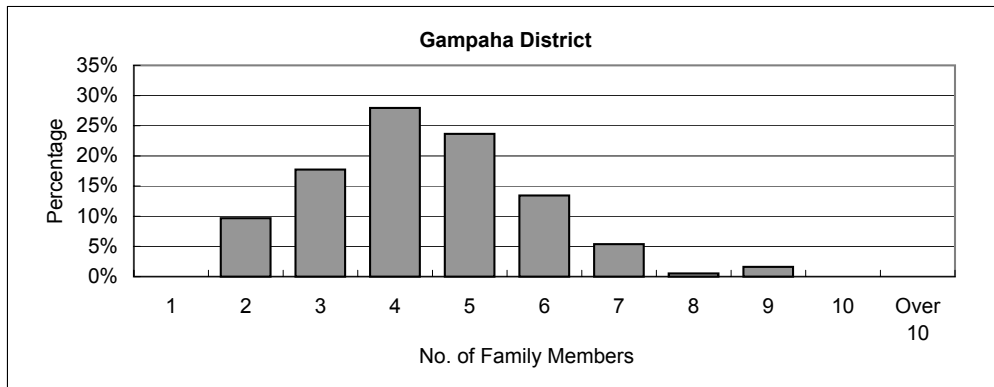
| District | Household | Shop | Factory | Office | Other | Total |
|----------|-----------|------|---------|--------|-------|-------|
| Gampaha | 81% | 17% | 1% | 1% | 0% | 100% |
| Colombo | 65% | 25% | 2% | 6% | 1% | 100% |
| Kalutara | 91% | 4% | 4% | 1% | 1% | 100% |
| Total | 73% | 20% | 2% | 4% | 1% | 100% |



18. No. of Family Members

No. of Family Members

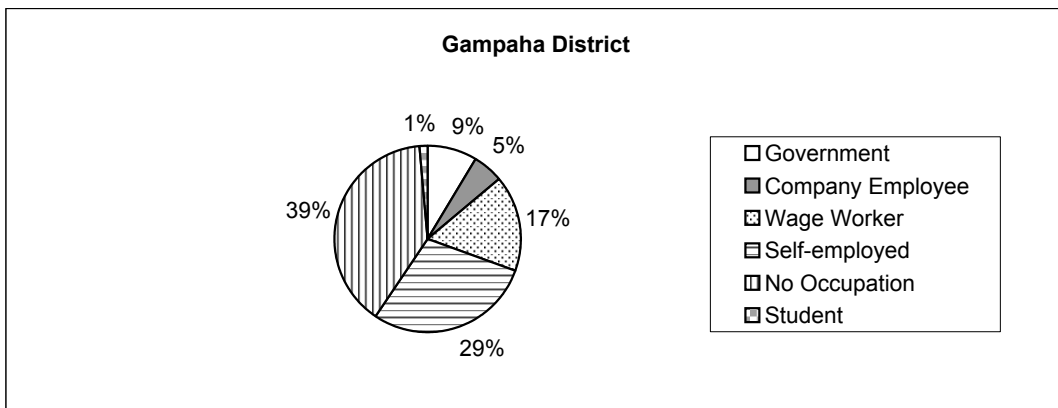
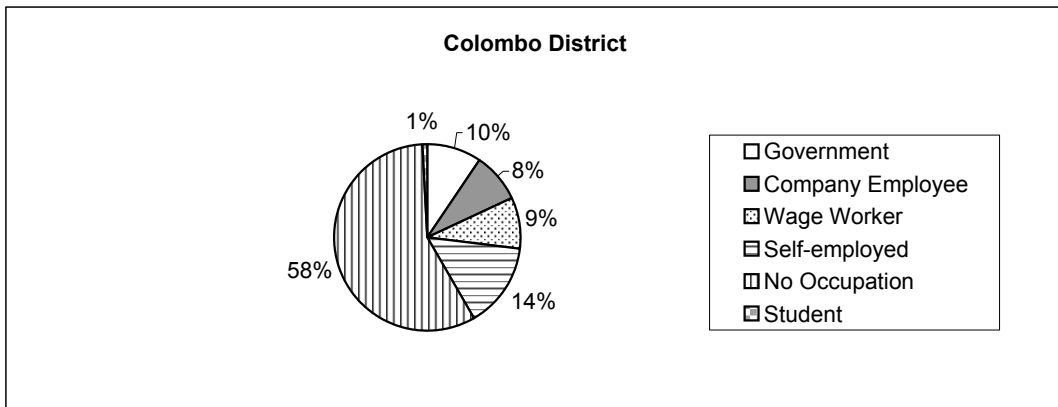
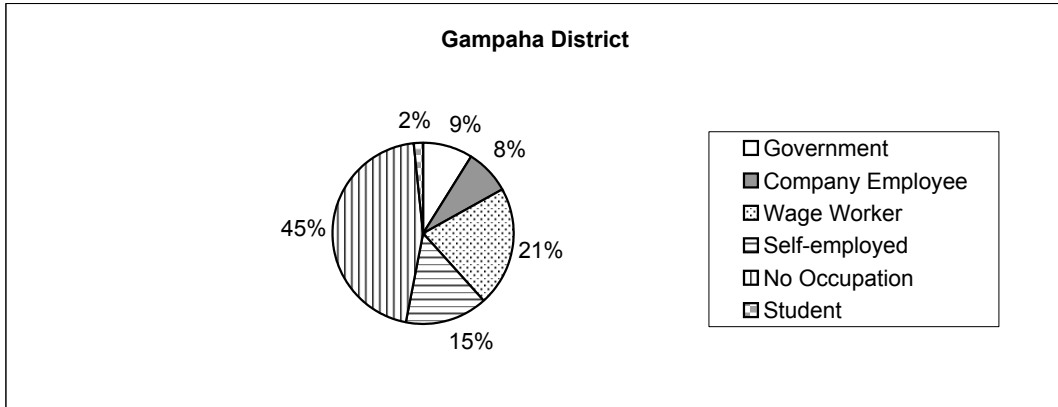
| District | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Over 10 | Total |
|----------|----|-----|-----|-----|-----|-----|----|----|----|----|---------|-------|
| Gampaha | 0% | 10% | 18% | 28% | 24% | 13% | 5% | 1% | 2% | 0% | 0% | 100% |
| Colombo | 3% | 8% | 13% | 26% | 23% | 14% | 7% | 4% | 2% | 1% | 0% | 100% |
| Kalutara | 3% | 5% | 15% | 30% | 22% | 13% | 6% | 3% | 0% | 2% | 0% | 100% |
| Total | 2% | 8% | 14% | 28% | 23% | 14% | 6% | 3% | 1% | 1% | 0% | 100% |



19. Occupation of Interviewee

Occupation of Interviewee

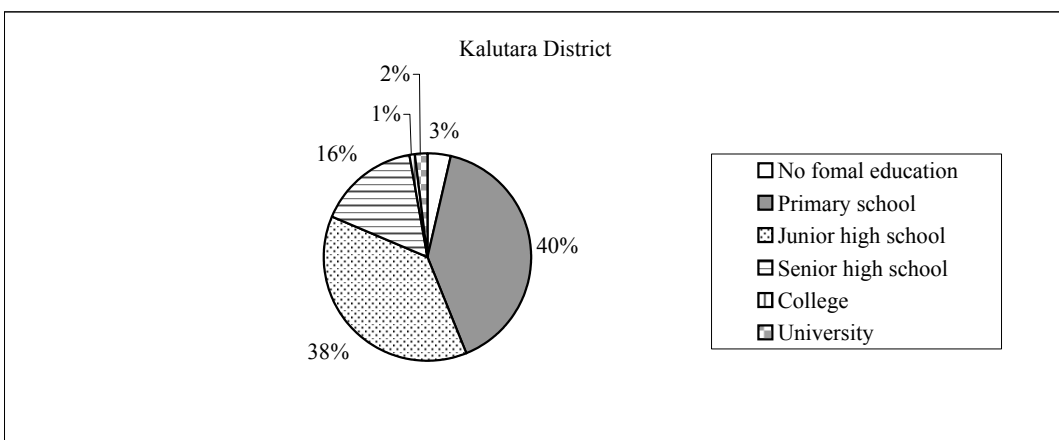
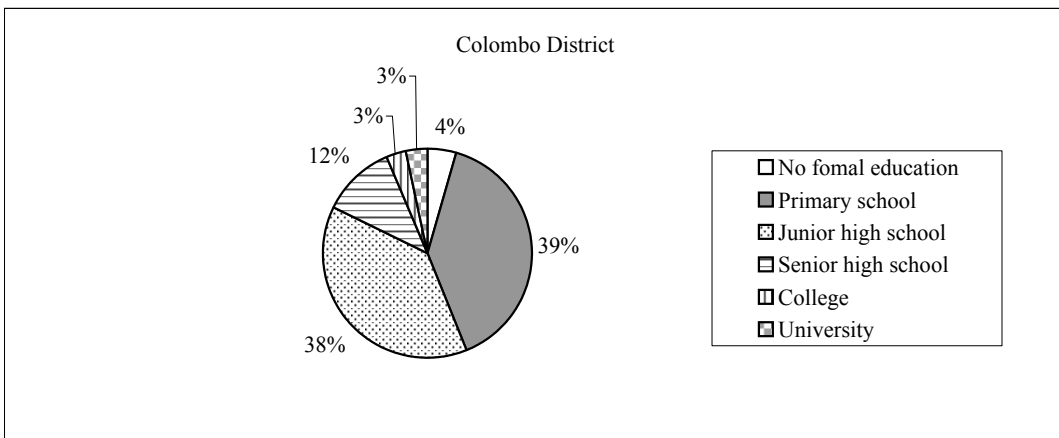
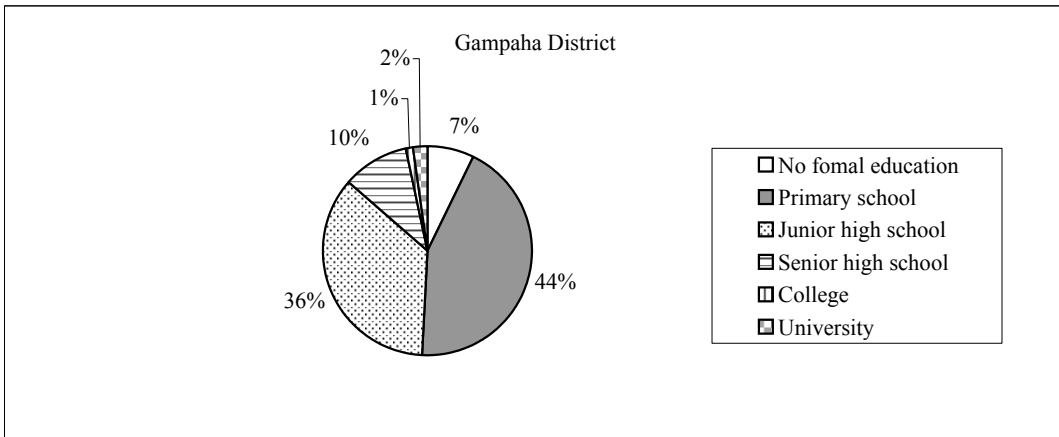
| District | Government | Company Employee | Wage Worker | Self-employed | No Occupation | Student | Total |
|----------|------------|------------------|-------------|---------------|---------------|---------|-------|
| Gampaha | 9% | 8% | 21% | 15% | 45% | 2% | 100% |
| Colombo | 10% | 8% | 9% | 14% | 58% | 1% | 100% |
| Kalutara | 9% | 5% | 17% | 29% | 39% | 1% | 100% |
| Total | 9% | 8% | 14% | 18% | 51% | 1% | 100% |



20. Education Level of Interviewee

Education Level of Interviewee

| District | No fomal education | Primary school | Junior high school | Senior high | College | University | Total |
|----------|--------------------|----------------|--------------------|-------------|---------|------------|-------|
| Gampaha | 7% | 44% | 36% | 10% | 1% | 2% | 100% |
| Colombo | 4% | 39% | 38% | 12% | 3% | 3% | 100% |
| Kalutara | 3% | 40% | 38% | 16% | 1% | 2% | 100% |
| Total | 5% | 41% | 37% | 12% | 2% | 3% | 100% |

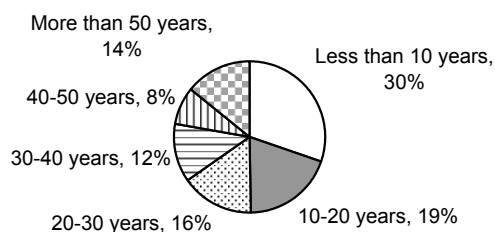


21. Period of Living at Present House Location

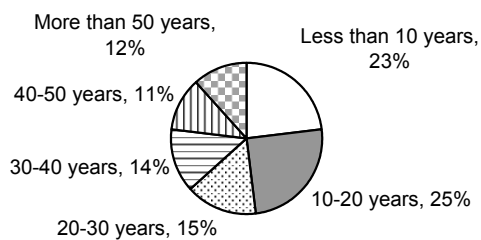
Period of Living at Present House Location

| District | Less than 10 years | 10-20 years | 20-30 years | 30-40 years | 40-50 years | More than 50 years | Total |
|----------|--------------------|-------------|-------------|-------------|-------------|--------------------|-------|
| Gampaha | 30% | 19% | 16% | 12% | 8% | 14% | 100% |
| Colombo | 23% | 25% | 15% | 14% | 11% | 12% | 100% |
| Kalutara | 34% | 18% | 21% | 9% | 9% | 10% | 100% |
| Total | 27% | 22% | 16% | 12% | 10% | 12% | 100% |

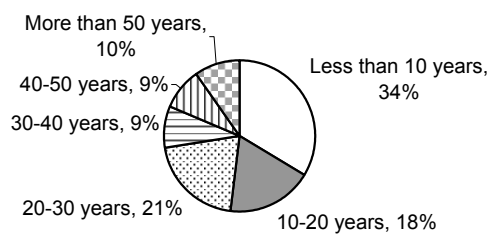
Gampaha District



Colombo District



Kalutara District

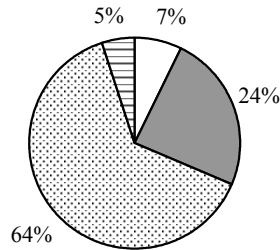


22. Type of Housing

Type of Housing

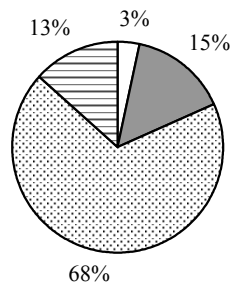
| District | Group 1 | Group 2 | Group 3 | Group 4 | Total |
|----------|---------|---------|---------|---------|-------|
| Gampaha | 7% | 24% | 64% | 5% | 100% |
| Colombo | 3% | 15% | 68% | 13% | 100% |
| Kalutara | 8% | 6% | 84% | 3% | 100% |
| Total | 5% | 16% | 70% | 9% | 100% |

Gampaha District



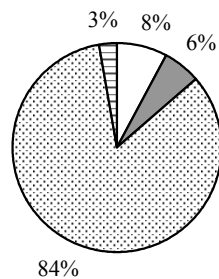
- Group 1:
Temporary houses made of timber (shanty)
- Group 2:
Permanent houses made of timber
- Group 3:
Permanent houses of single story made of brick
- Group 4:
Permanent houses/buildings of two or more floors made of brick and concrete

Colombo District



- Group 1:
Temporary houses made of timber (shanty)
- Group 2:
Permanent houses made of timber
- Group 3:
Permanent houses of single story made of brick
- Group 4:
Permanent houses/buildings of two or more floors made of brick and concrete

Kalutara District

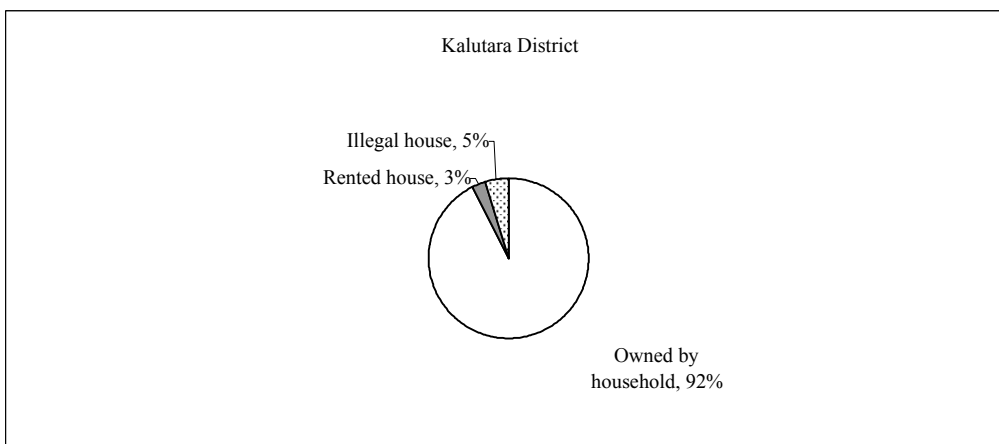
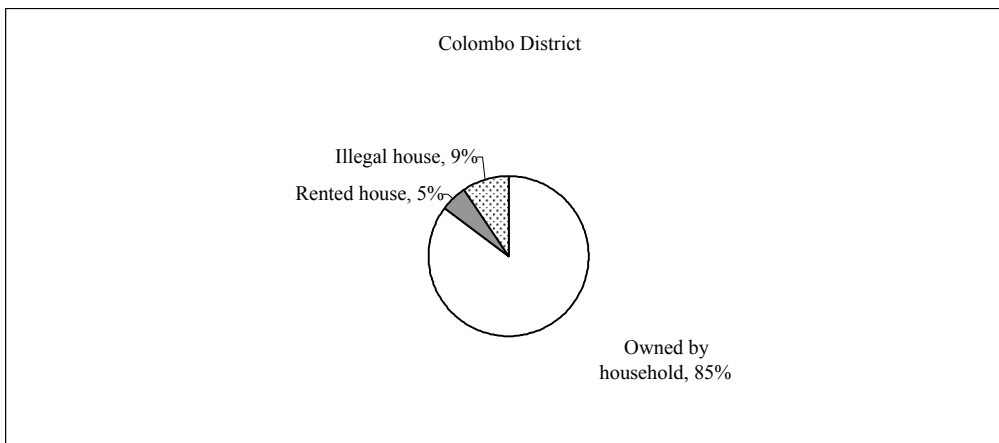
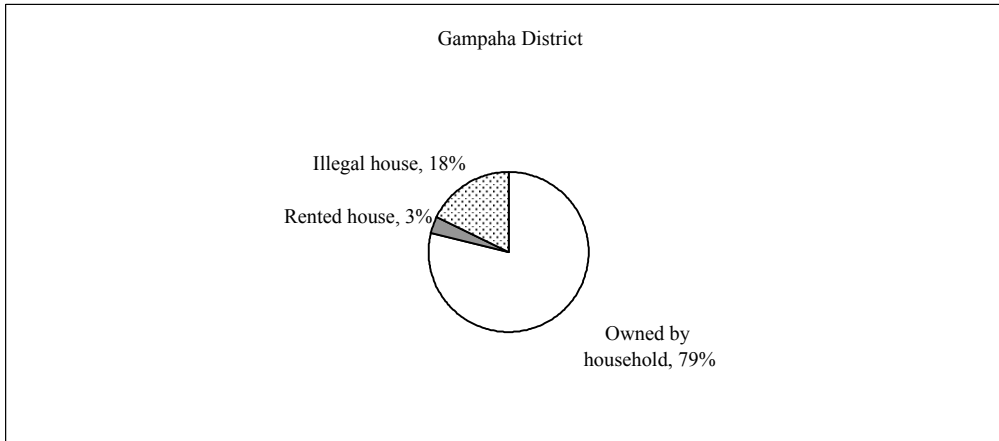


- Group 1:
Temporary houses made of timber (shanty)
- Group 2:
Permanent houses made of timber
- Group 3:
Permanent houses of single story made of brick
- Group 4:
Permanent houses/buildings of two or more floors made of brick and concrete

23. Ownership of Housing

Ownership of Housing

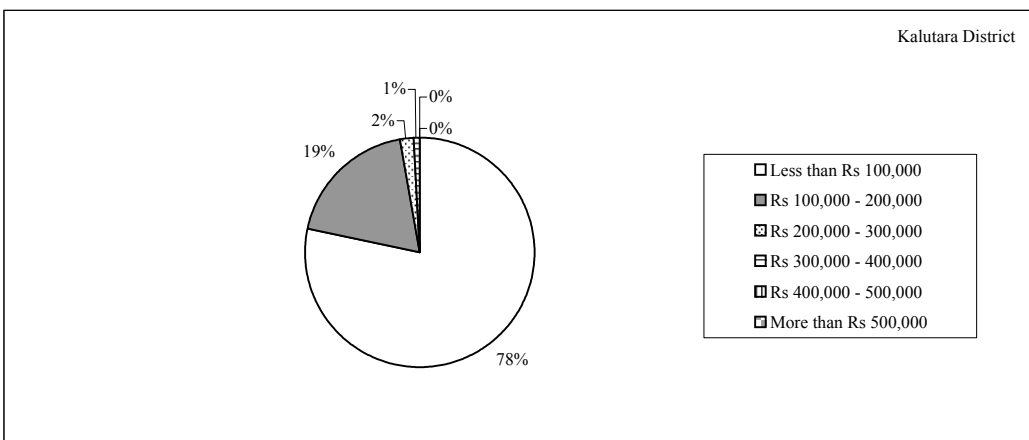
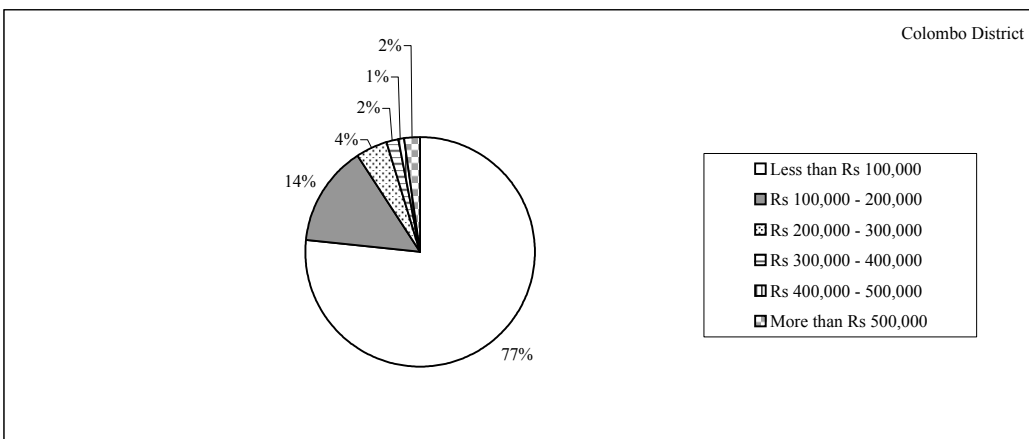
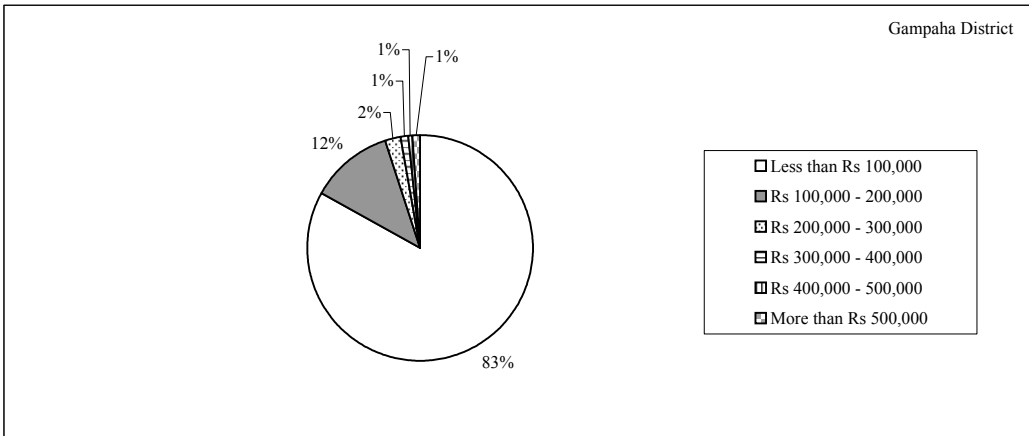
| District | Owned by household | Rented house | Illegal house | Total |
|----------|--------------------|--------------|---------------|-------|
| Gampaha | 79% | 3% | 18% | 100% |
| Colombo | 85% | 5% | 9% | 100% |
| Kalutara | 92% | 3% | 5% | 100% |
| Total | 85% | 4% | 11% | 100% |



24. Household Income

Household Income

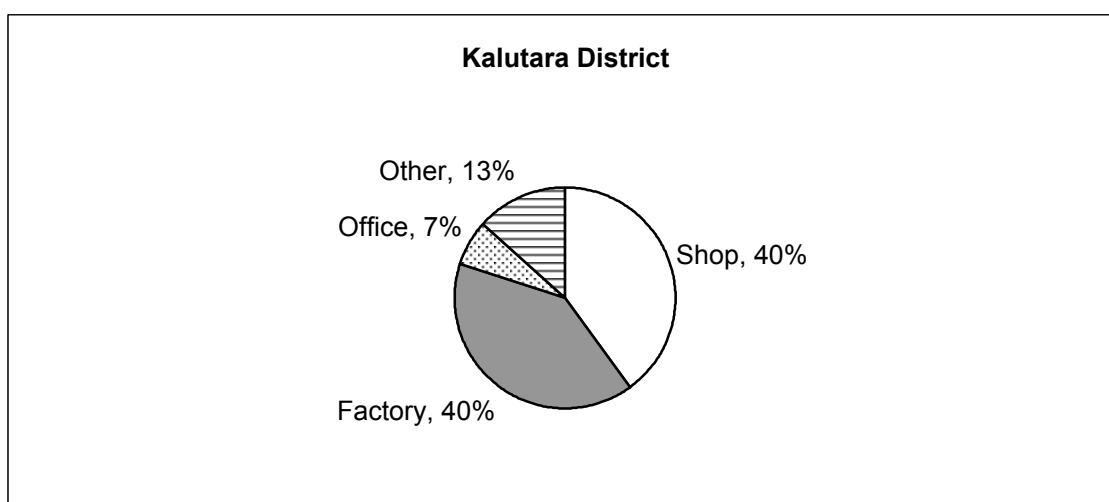
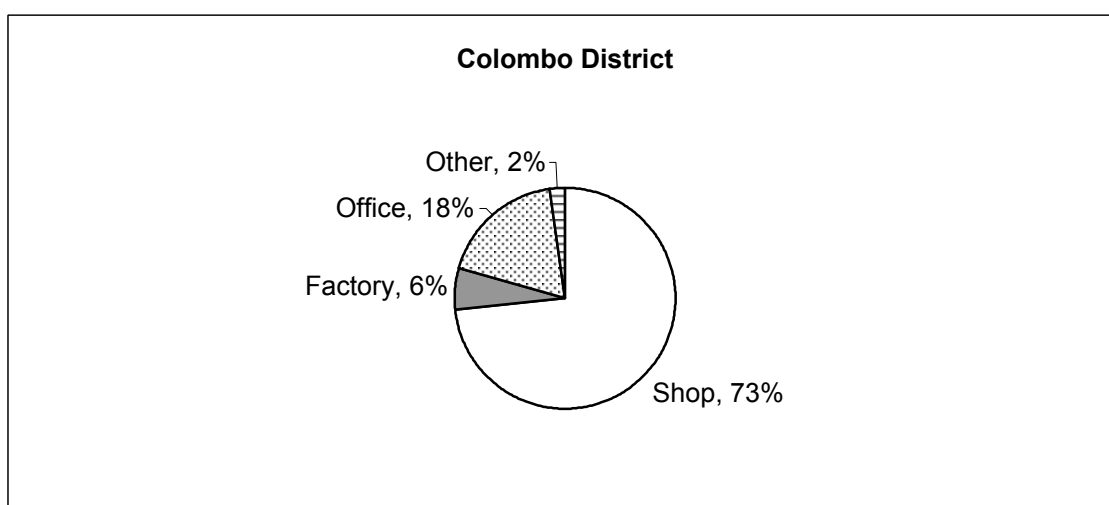
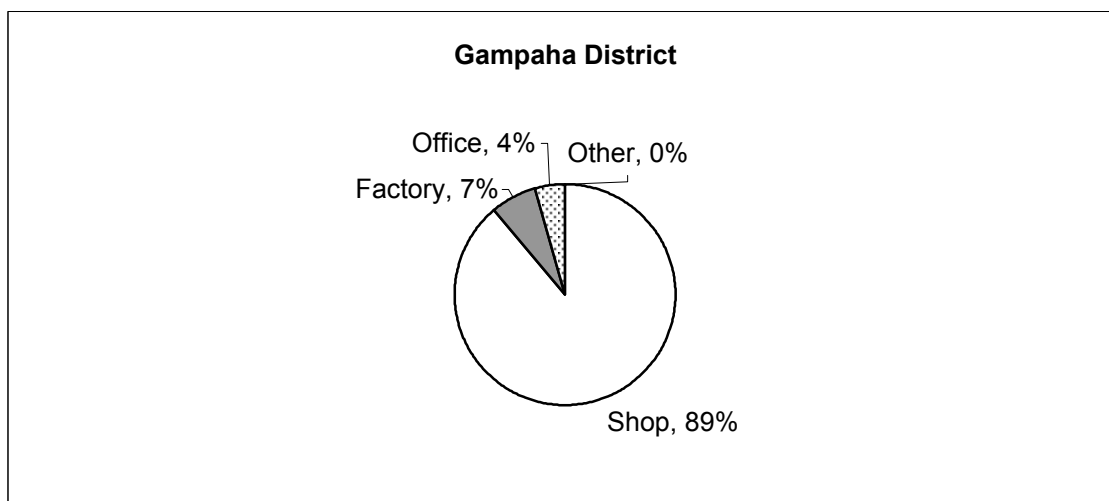
| District | Less than Rs 100,000 | Rs 100,000 - 200,000 | Rs 200,000 - 300,000 | Rs 300,000 - 400,000 | Rs 400,000 - 500,000 | More than Rs 500,000 | Total |
|----------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------|
| Gampaha | 83% | 12% | 2% | 1% | 1% | 1% | 100% |
| Colombo | 77% | 14% | 4% | 2% | 1% | 2% | 100% |
| Kalutara | 78% | 19% | 2% | 1% | 0% | 0% | 100% |
| Total | 79% | 15% | 3% | 1% | 0% | 2% | 100% |



25. Type of Business

Type of Business

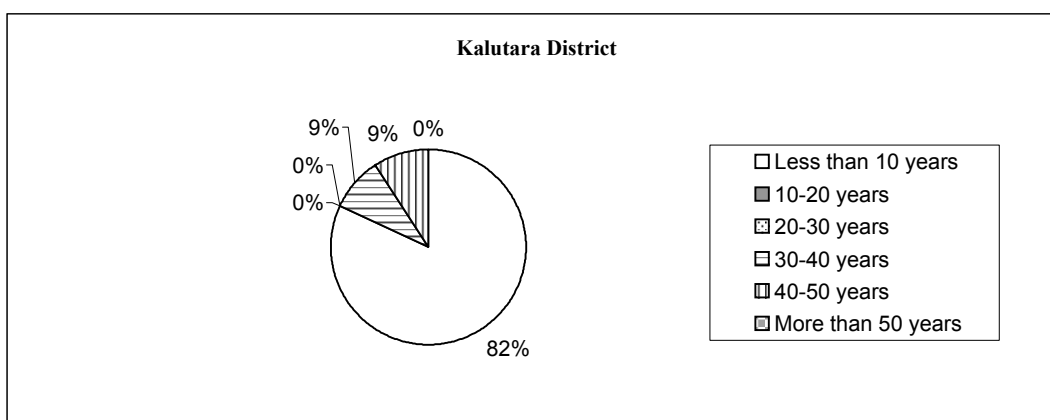
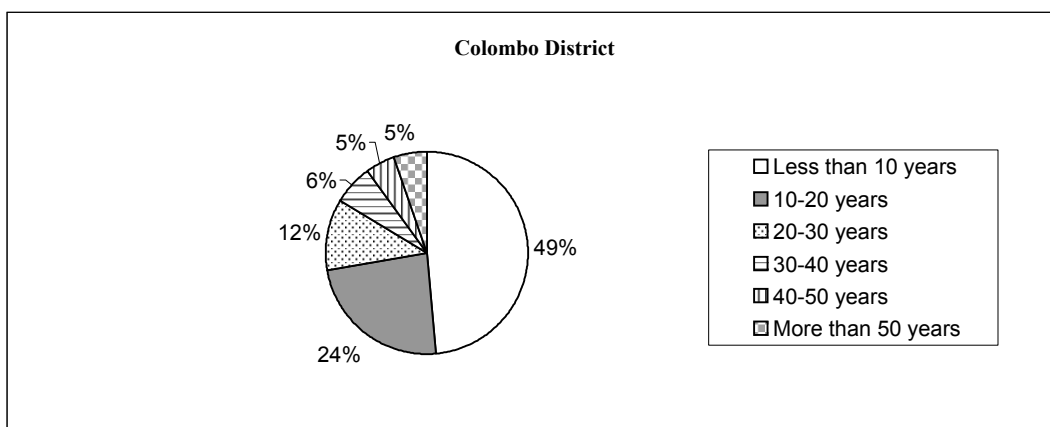
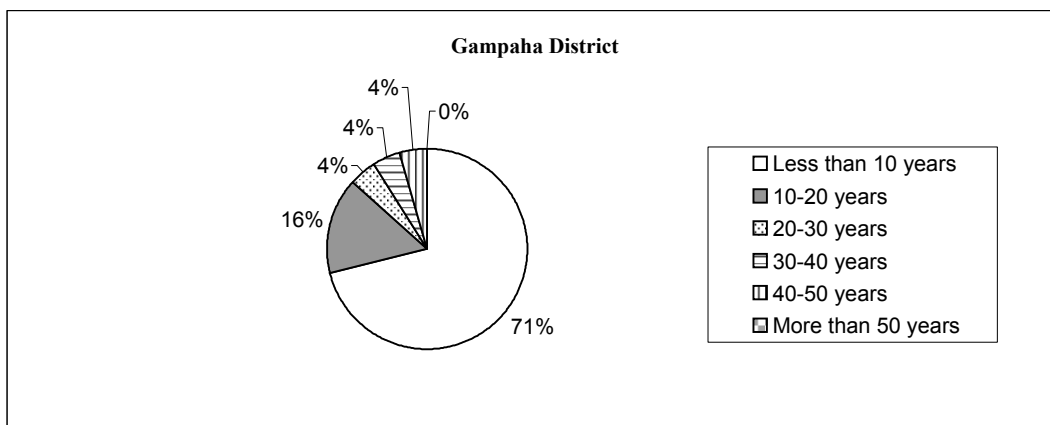
| District | Shop | Factory | Office | Other | Total |
|----------|------|---------|--------|-------|-------|
| Gampaha | 89% | 7% | 4% | 0% | 100% |
| Colombo | 73% | 6% | 18% | 2% | 100% |
| Kalutara | 40% | 40% | 7% | 13% | 100% |
| Total | 74% | 8% | 15% | 3% | 100% |



26. Period of Business at Present Location

Period of Business at Present Location

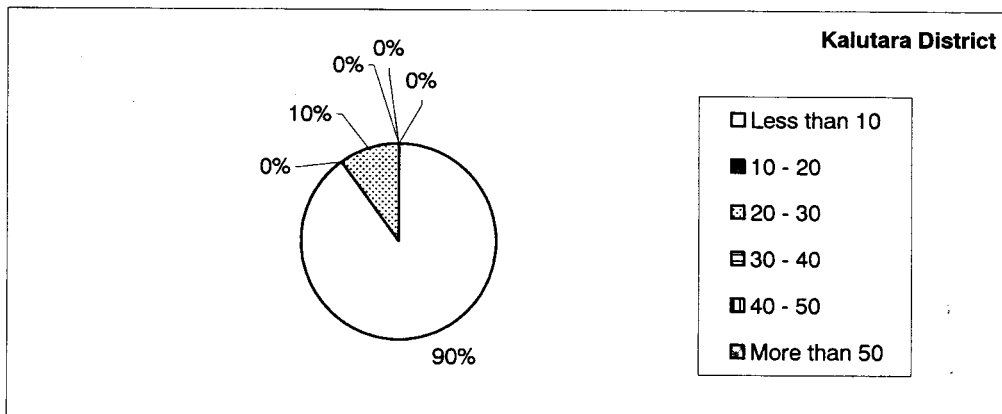
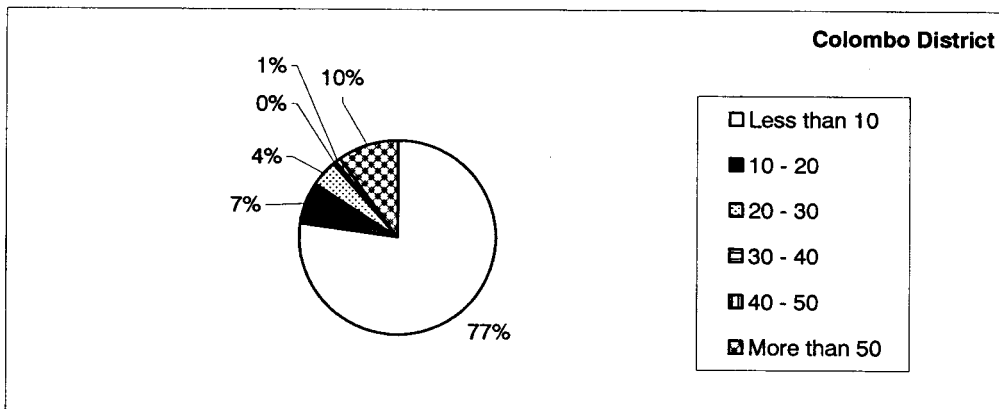
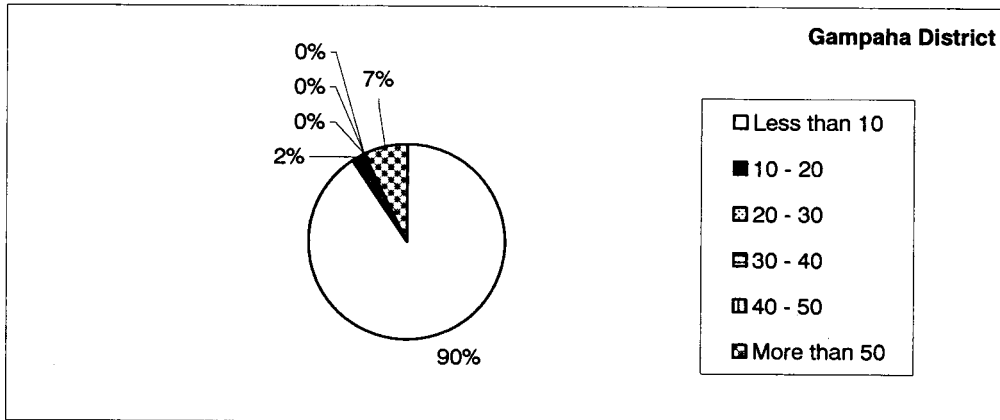
| District | Less than 10 years | 10-20 years | 20-30 years | 30-40 years | 40-50 years | More than 50 years | Total |
|----------|--------------------|-------------|-------------|-------------|-------------|--------------------|-------|
| Gampaha | 71% | 16% | 4% | 4% | 4% | 0% | 100% |
| Colombo | 49% | 24% | 12% | 6% | 5% | 5% | 100% |
| Kalutara | 82% | 0% | 0% | 9% | 9% | 0% | 100% |
| Total | 54% | 21% | 10% | 6% | 5% | 4% | 100% |



27. Number of Employees

Number of Employees

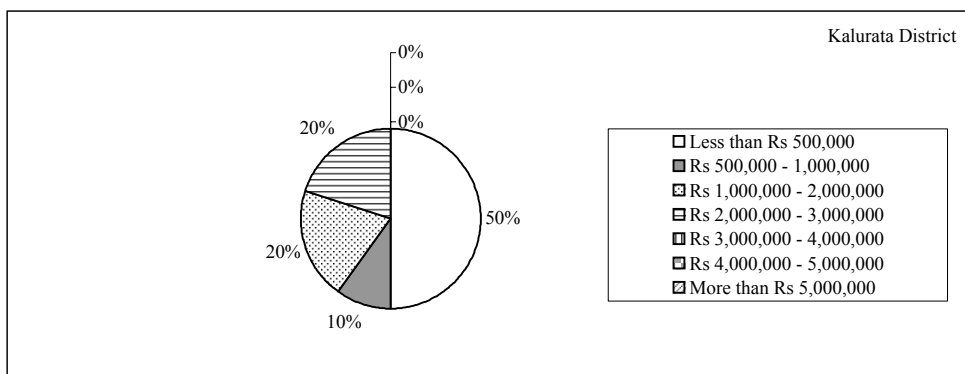
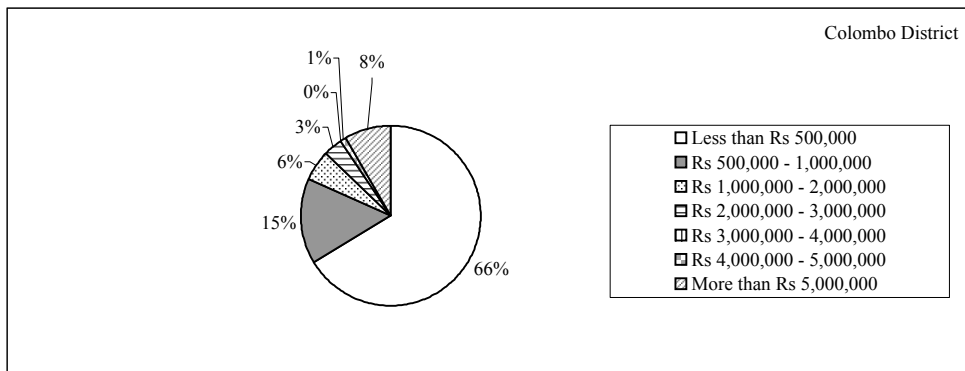
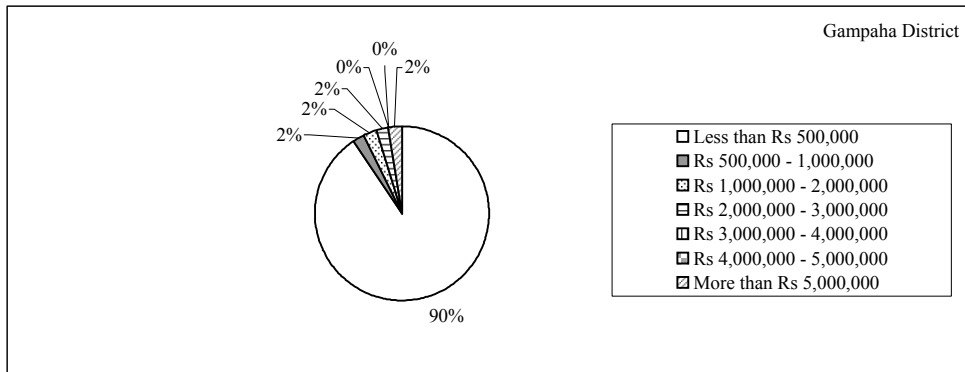
| District | Less than 10 | 10 - 20 | 20 - 30 | 30 - 40 | 40 - 50 | More than 50 | Total |
|----------|--------------|---------|---------|---------|---------|--------------|-------|
| Gampaha | 90% | 2% | 0% | 0% | 0% | 7% | 100% |
| Colombo | 77% | 7% | 4% | 0% | 1% | 10% | 100% |
| Kalutara | 90% | 0% | 10% | 0% | 0% | 0% | 100% |
| Total | 80% | 6% | 4% | 0% | 1% | 9% | 100% |



28. Average Annual Sales

Average Annual Sales

| District | Less than Rs 500,000 | Rs 500,000 - 1,000,000 | Rs 1,000,000 - 2,000,000 | Rs 2,000,000 - 3,000,000 | Rs 3,000,000 - 4,000,000 | Rs 4,000,000 - 5,000,000 | More than Rs 5,000,000 | Total |
|----------|----------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------|-------|
| Gampaha | 90% | 2% | 2% | 2% | 0% | 0% | 2% | 100% |
| Colombo | 66% | 15% | 6% | 3% | 0% | 1% | 8% | 100% |
| Kalutara | 50% | 10% | 20% | 20% | 0% | 0% | 0% | 100% |
| Total | 70% | 12% | 6% | 4% | 0% | 1% | 7% | 100% |



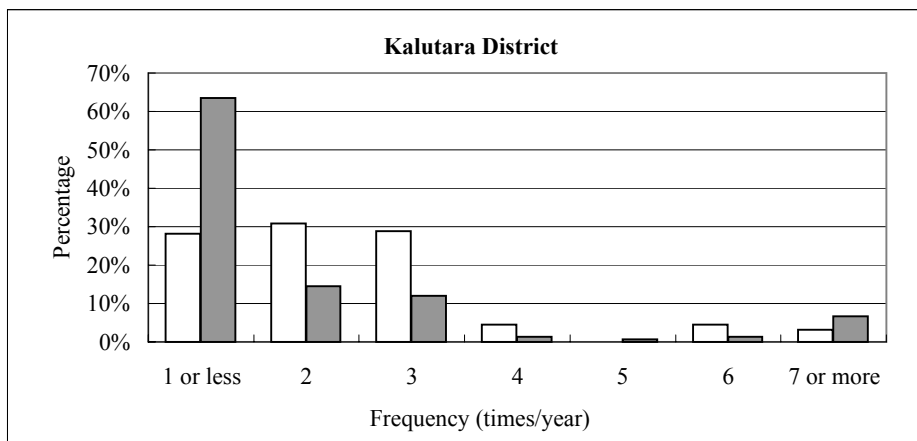
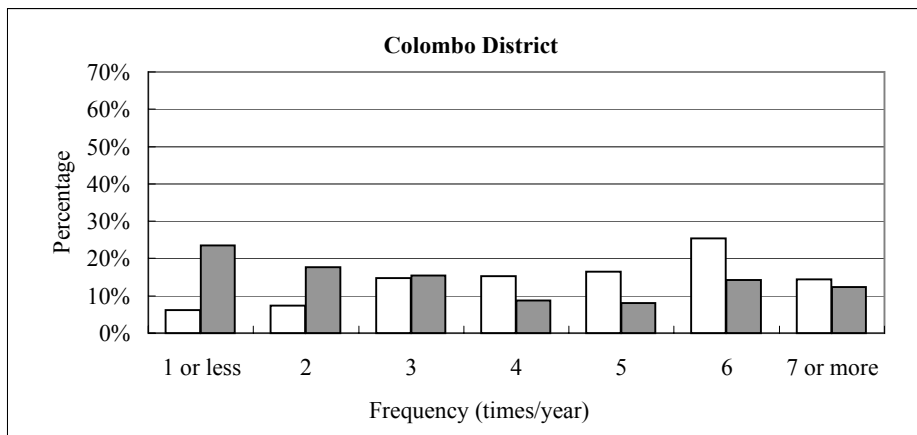
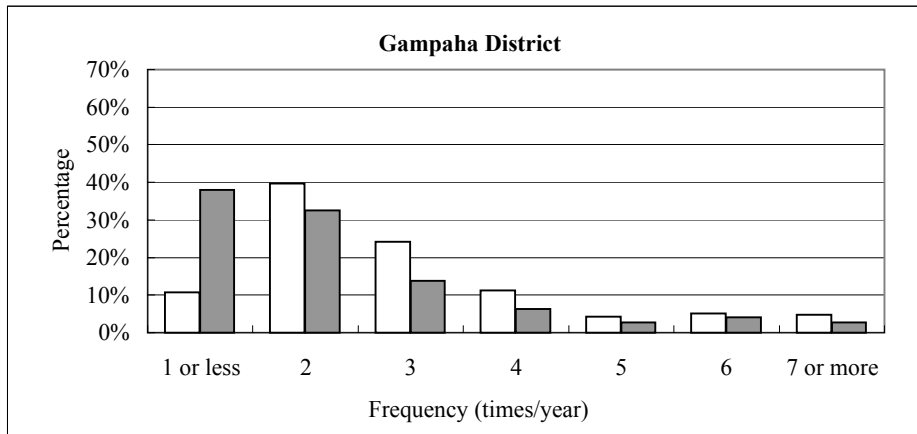
29. Frequency of Inundation

Outside House/Building

| District | 1 or less | 2 | 3 | 4 | 5 | 6 | 7 or more | Total |
|----------|-----------|-----|-----|-----|-----|-----|-----------|-------|
| Gampaha | 11% | 40% | 24% | 11% | 4% | 5% | 5% | 100% |
| Colombo | 6% | 7% | 15% | 15% | 16% | 25% | 14% | 100% |
| Kalutara | 28% | 31% | 29% | 4% | 0% | 4% | 3% | 100% |
| Total | 11% | 19% | 19% | 13% | 11% | 17% | 10% | 100% |

Inside House/Building

| District | 1 or less | 2 | 3 | 4 | 5 | 6 | 7 or more | Total |
|----------|-----------|-----|-----|----|----|-----|-----------|-------|
| Gampaha | 38% | 33% | 14% | 6% | 3% | 4% | 3% | 100% |
| Colombo | 23% | 18% | 15% | 9% | 8% | 14% | 12% | 100% |
| Kalutara | 64% | 15% | 12% | 1% | 1% | 1% | 7% | 100% |
| Total | 33% | 21% | 15% | 7% | 6% | 10% | 9% | 100% |



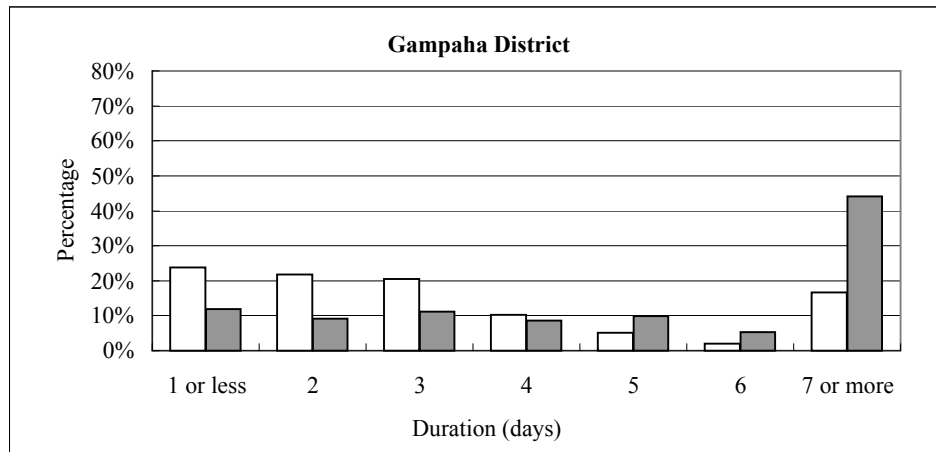
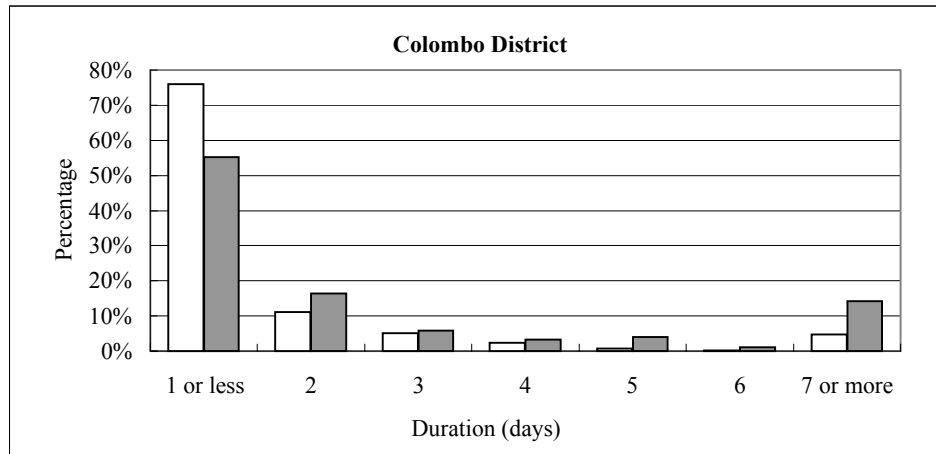
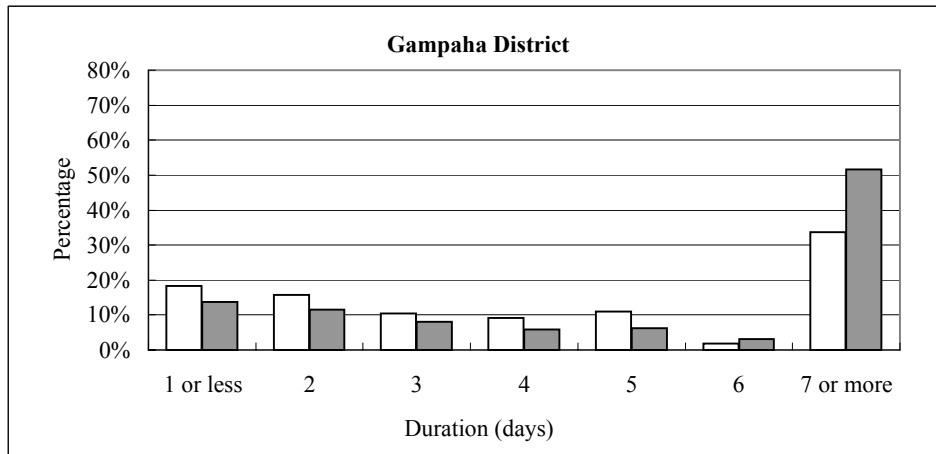
30. Duration of Inundation

Average Inundation

| District | 1 or less | 2 | 3 | 4 | 5 | 6 | 7 or more | Total |
|----------|-----------|-----|-----|-----|-----|----|-----------|-------|
| Gampaha | 18% | 16% | 10% | 9% | 11% | 2% | 34% | 100% |
| Colombo | 76% | 11% | 5% | 2% | 1% | 0% | 5% | 100% |
| Kalutara | 24% | 22% | 21% | 10% | 5% | 2% | 17% | 100% |
| Total | 54% | 14% | 9% | 5% | 4% | 1% | 13% | 100% |

Maximum Inundation

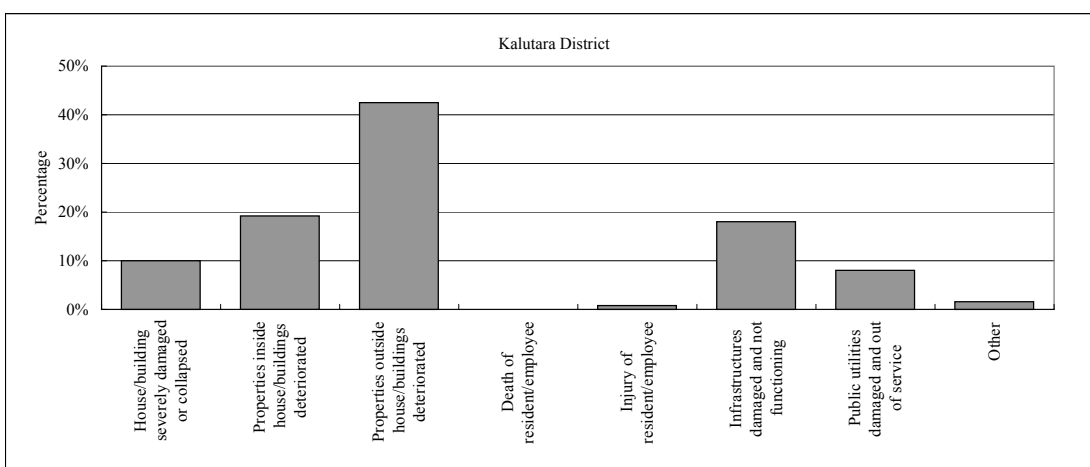
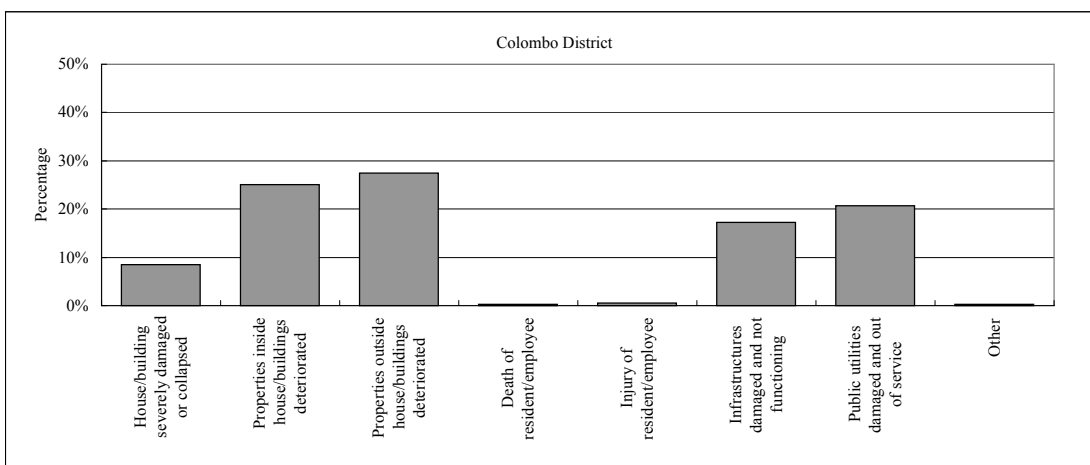
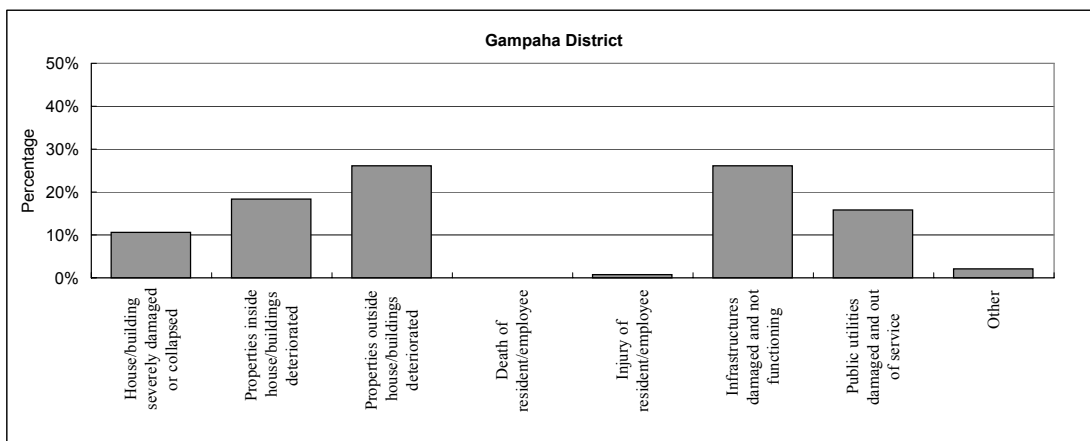
| District | 1 or less | 2 | 3 | 4 | 5 | 6 | 7 or more | Total |
|----------|-----------|-----|-----|----|-----|----|-----------|-------|
| Gampaha | 14% | 12% | 8% | 6% | 6% | 3% | 52% | 100% |
| Colombo | 55% | 16% | 6% | 3% | 4% | 1% | 14% | 100% |
| Kalutara | 12% | 9% | 11% | 9% | 10% | 5% | 44% | 100% |
| Total | 38% | 14% | 7% | 5% | 5% | 2% | 28% | 100% |



31. Damage due to Average Inundation

Damage due to Average Inundation

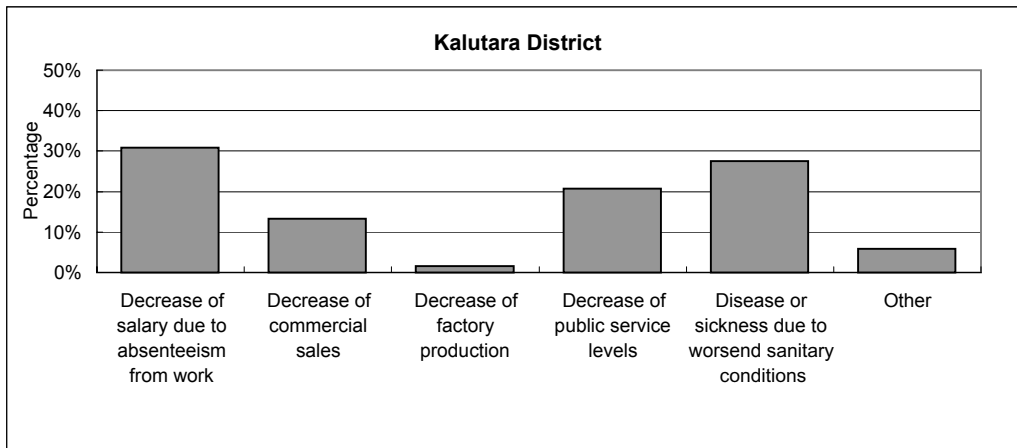
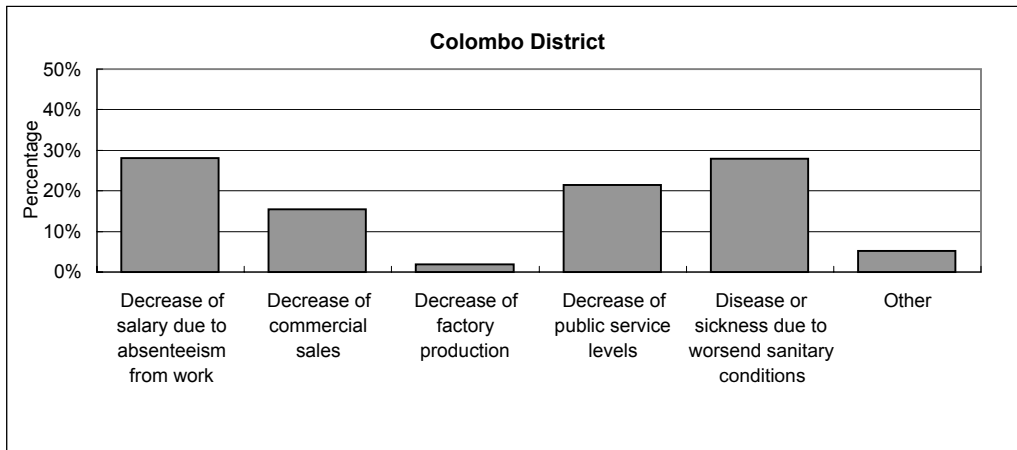
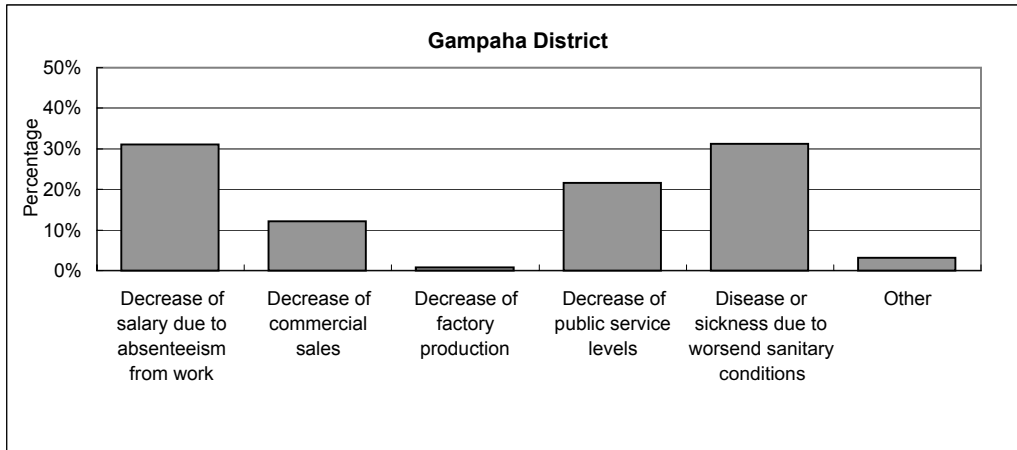
| District | House/building severely damaged or collapsed | Properties inside house/buildings deteriorated | Properties outside house/buildings deteriorated | Death of resident/employee | Injury of resident/employee | Infrastructures damaged and not functioning | Public utilities damaged and out of service | Other | Total |
|----------|--|--|---|----------------------------|-----------------------------|---|---|-------|-------|
| Gampaha | 11% | 18% | 26% | 0% | 1% | 26% | 16% | 2% | 100% |
| Colombo | 8% | 25% | 27% | 0% | 1% | 17% | 21% | 0% | 100% |
| Kalutara | 10% | 19% | 43% | 0% | 1% | 18% | 8% | 2% | 100% |
| Total | 9% | 22% | 29% | 0% | 1% | 20% | 18% | 1% | 100% |



32. Impact due to Average Inundation

Impact due to Average Inundation:

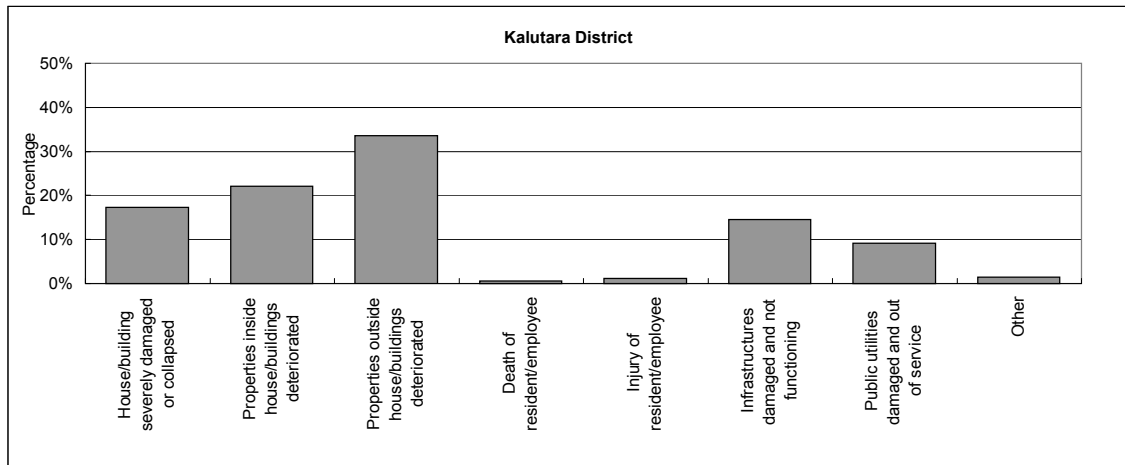
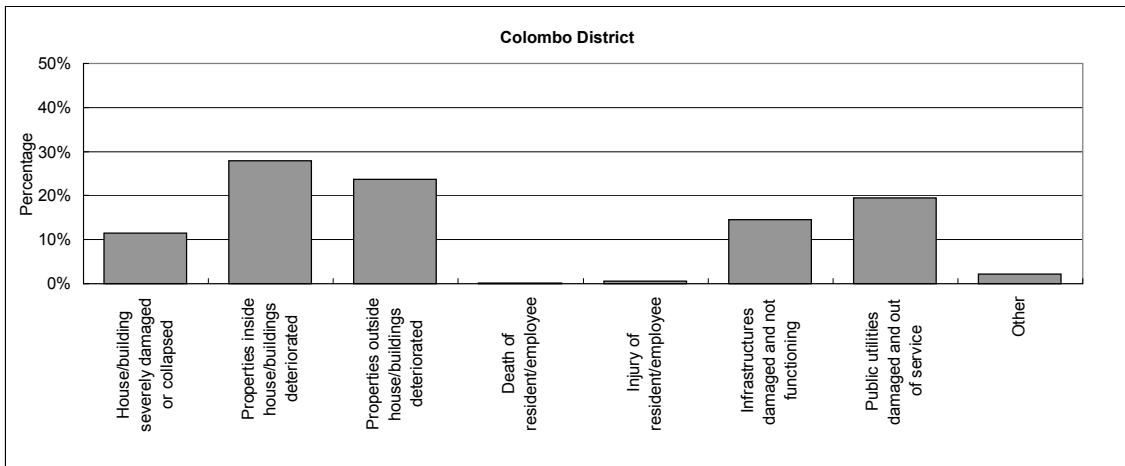
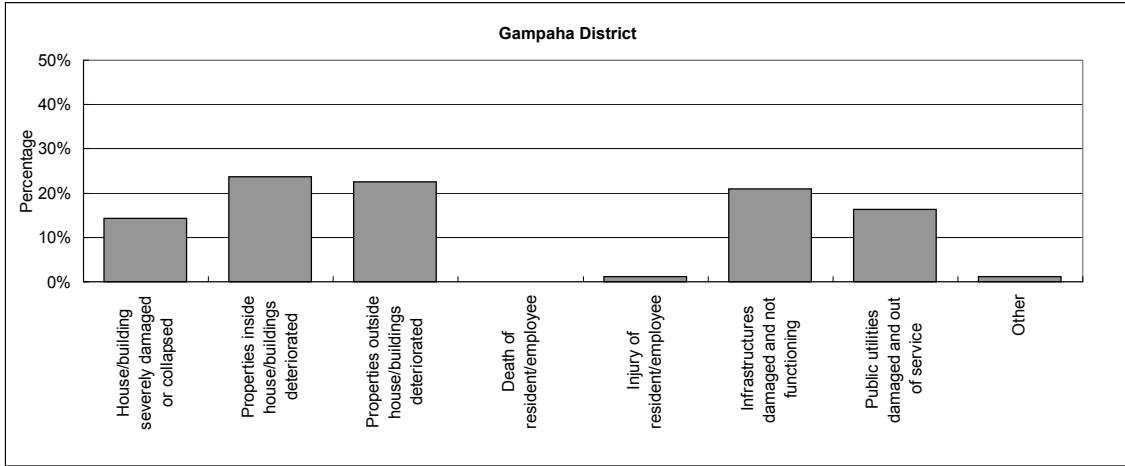
| District | Decrease of salary due to absenteeism from work | Decrease of commercial sales | Decrease of factory production | Decrease of public service levels | Disease or sickness due to worsened sanitary | Other | Total |
|----------|---|------------------------------|--------------------------------|-----------------------------------|--|-------|-------|
| Gampaha | 31% | 12% | 1% | 22% | 31% | 3% | 100% |
| Colombo | 28% | 16% | 2% | 22% | 28% | 5% | 100% |
| Kalutara | 47% | 4% | 2% | 14% | 17% | 17% | 100% |
| Total | 31% | 13% | 2% | 21% | 28% | 6% | 100% |



33. Damage due to Maximum Inundation

Damage due to Maximum Inundation

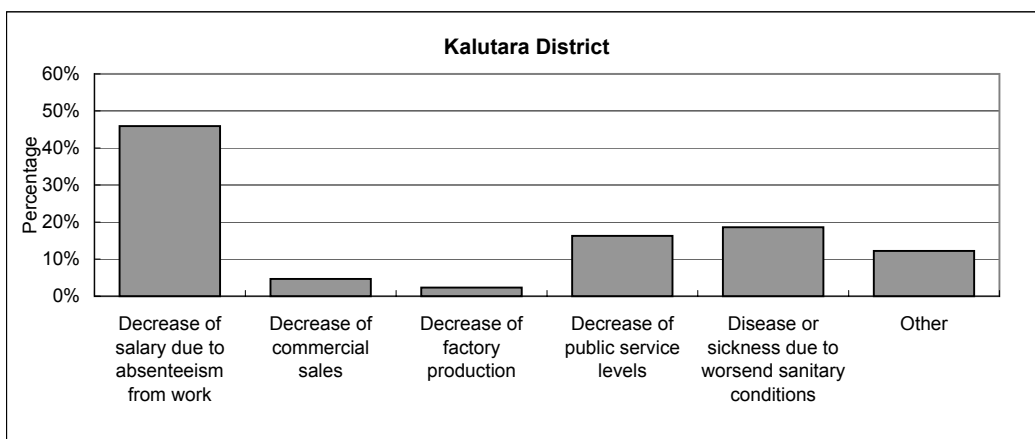
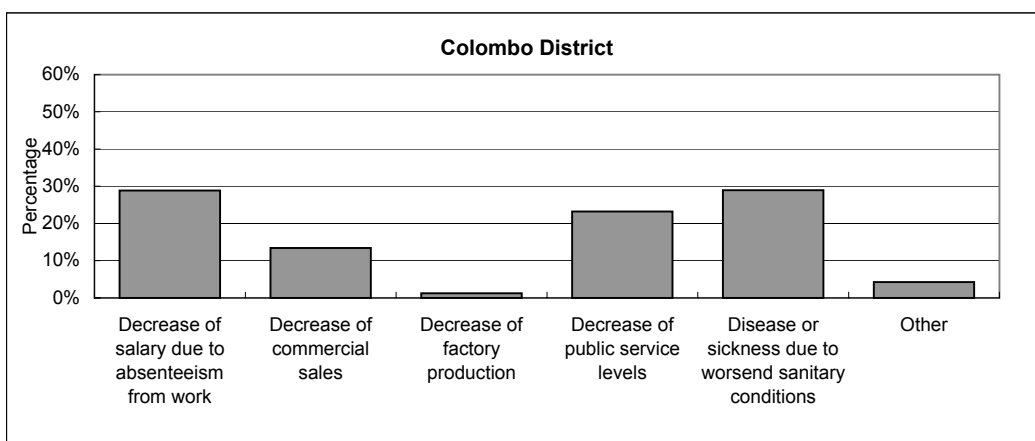
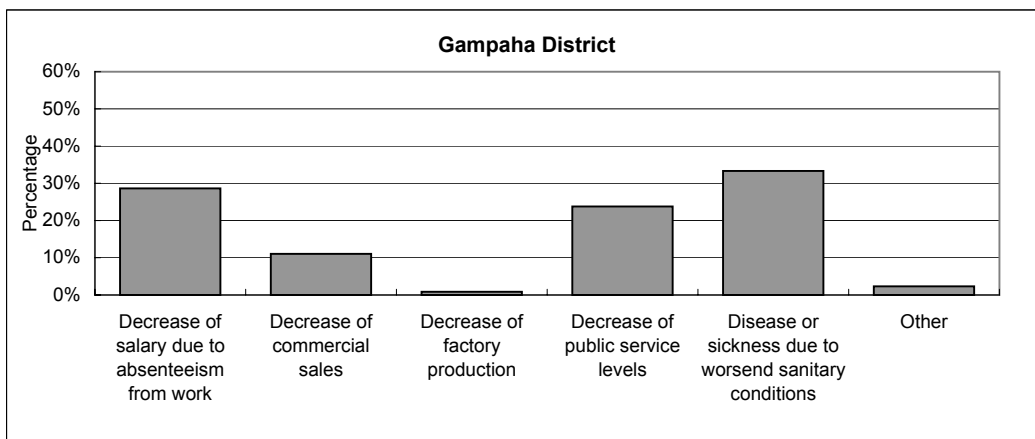
| District | House/building severely damaged or collapsed | Properties inside house/buildings deteriorated | Properties outside house/buildings deteriorated | Death of resident/employee | Injury of resident/employee | Infrastructures damaged and not functioning | Public utilities damaged and out of service | Other | Total |
|----------|--|--|---|----------------------------|-----------------------------|---|---|-------|-------|
| Gampaha | 14% | 24% | 23% | 0% | 1% | 21% | 16% | 1% | 100% |
| Colombo | 12% | 28% | 24% | 0% | 1% | 15% | 19% | 2% | 100% |
| Kalutara | 17% | 22% | 34% | 1% | 1% | 15% | 9% | 2% | 100% |
| Total | 13% | 26% | 25% | 0% | 1% | 16% | 17% | 2% | 100% |



34. Impact due to Maximum Inundation

Impact due to Maximum Inundation

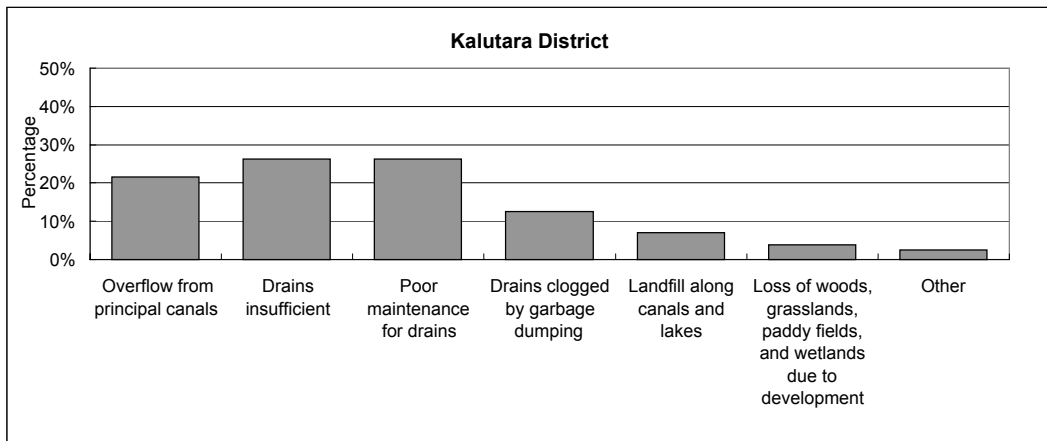
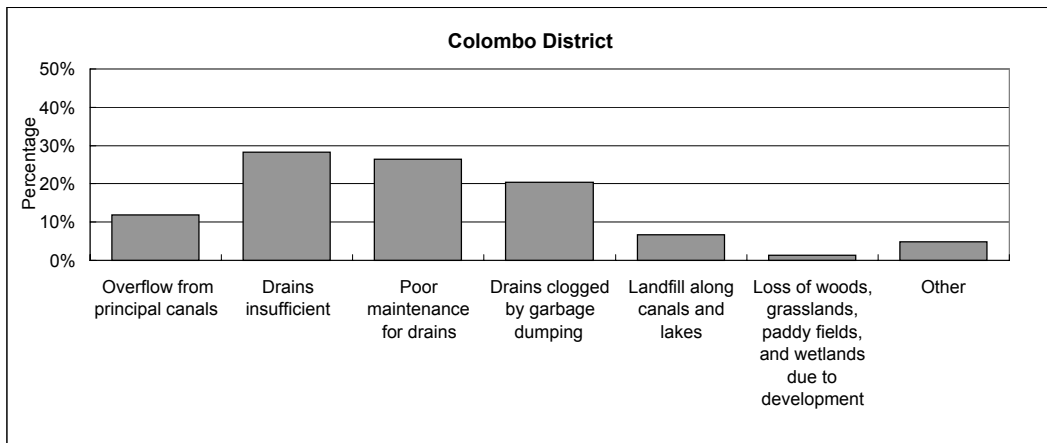
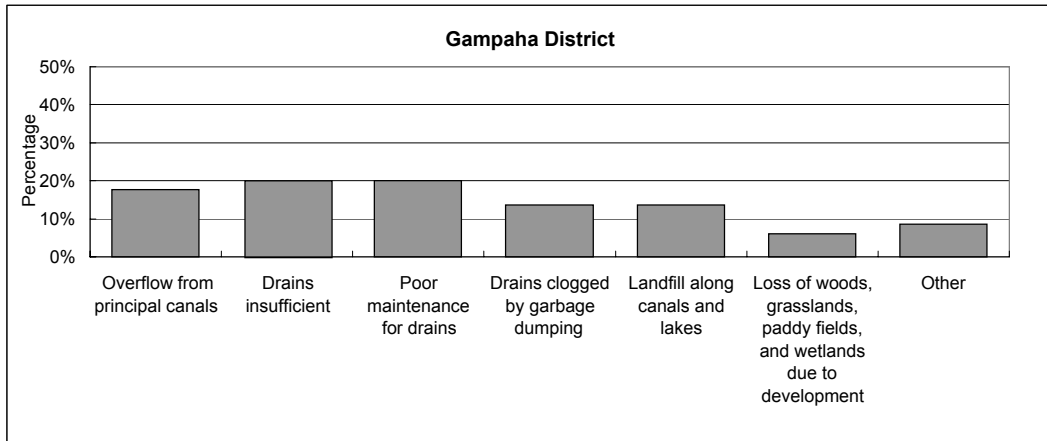
| District | Decrease of salary due to absenteeism from work | Decrease of commercial sales | Decrease of factory production | Decrease of public service levels | Disease or sickness due to worsend sanitary | Other | Total |
|----------|---|------------------------------|--------------------------------|-----------------------------------|---|-------|-------|
| Gampaha | 29% | 11% | 1% | 24% | 33% | 2% | 100% |
| Colombo | 29% | 13% | 1% | 23% | 29% | 4% | 100% |
| Kalutara | 46% | 5% | 2% | 16% | 19% | 12% | 100% |
| Total | 31% | 12% | 1% | 23% | 29% | 5% | 100% |



35. Cause of Inundation

Cause of Inundation

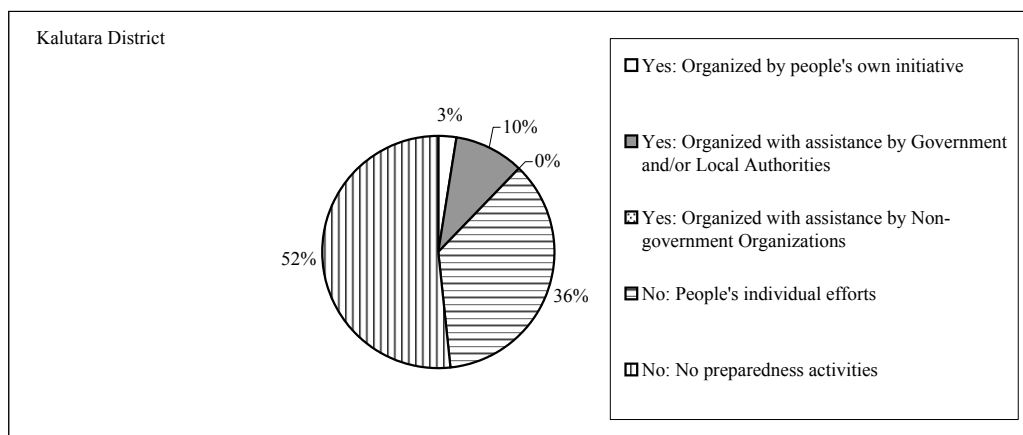
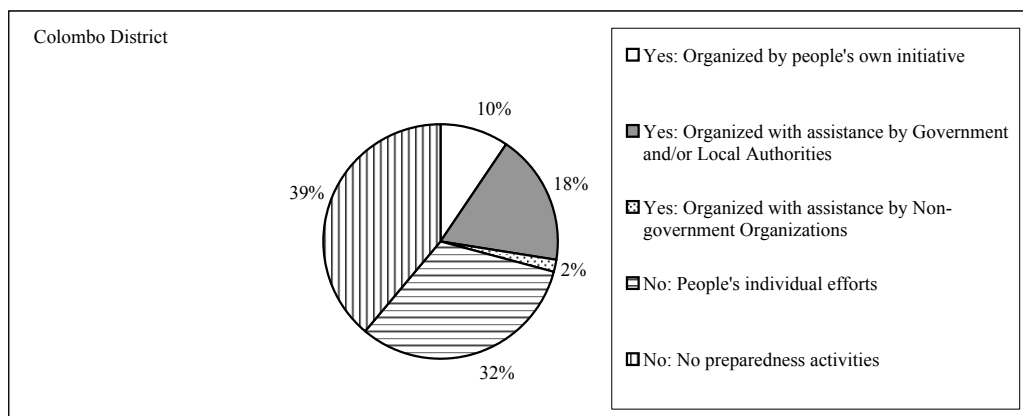
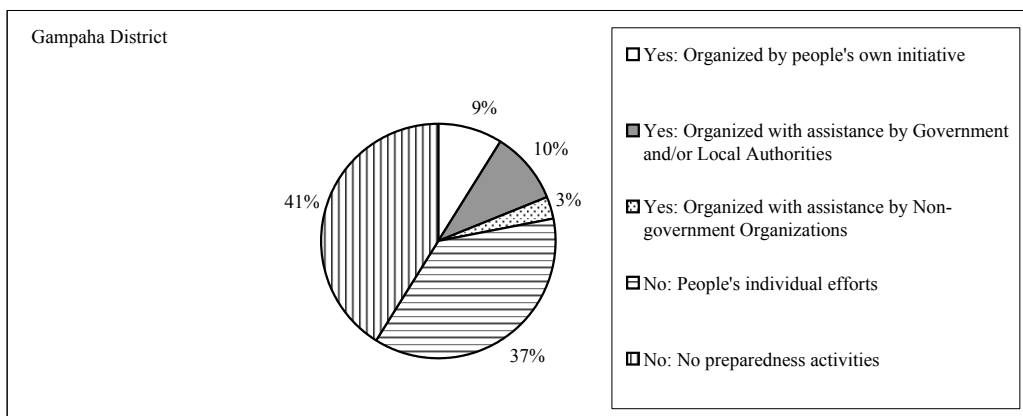
| District | Overflow from principal canals | Drains insufficient | Poor maintenance for drains | Drains clogged by garbage dumping | Landfill along canals and lakes | Loss of woods, grasslands, paddy fields, and wetlands due to development | Other | Total |
|----------|--------------------------------|---------------------|-----------------------------|-----------------------------------|---------------------------------|--|-------|-------|
| Gampaha | 18% | 20% | 20% | 14% | 14% | 6% | 9% | 100% |
| Colombo | 12% | 28% | 26% | 20% | 7% | 1% | 5% | 100% |
| Kalutara | 22% | 26% | 26% | 13% | 7% | 4% | 3% | 100% |
| Total | 15% | 26% | 25% | 18% | 8% | 3% | 6% | 100% |



36. Existence of Organized Preparedness Activities against Inundation

Existence of Organized Preparedness Activities against Inundation

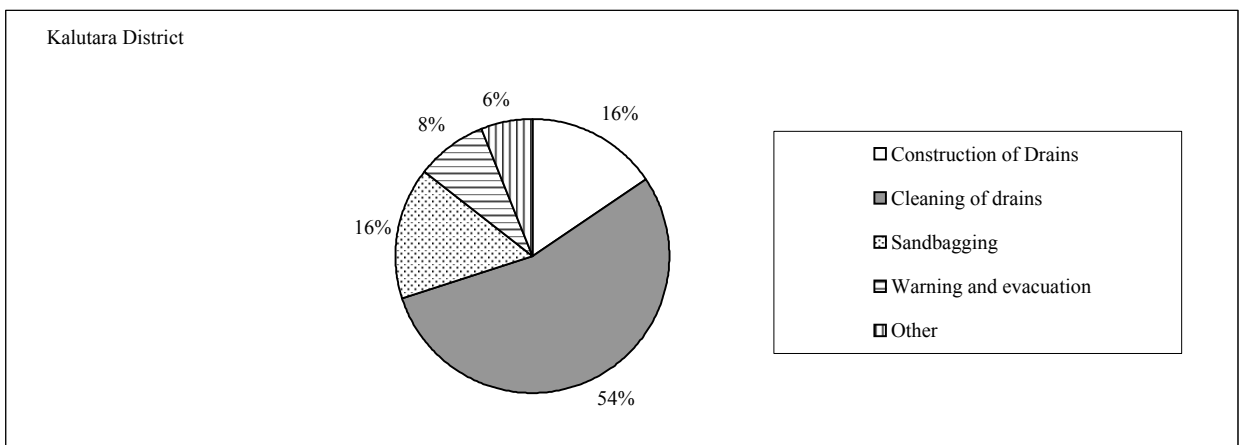
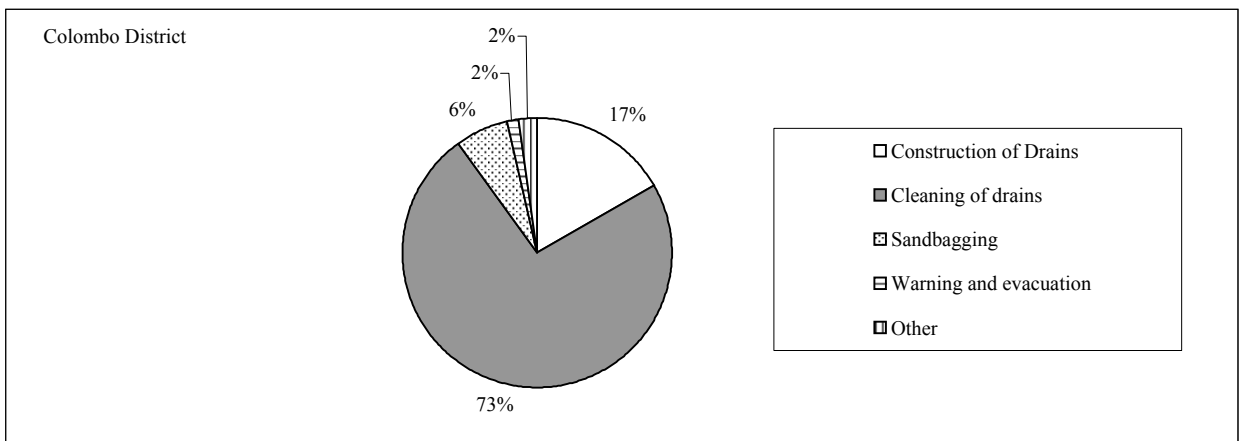
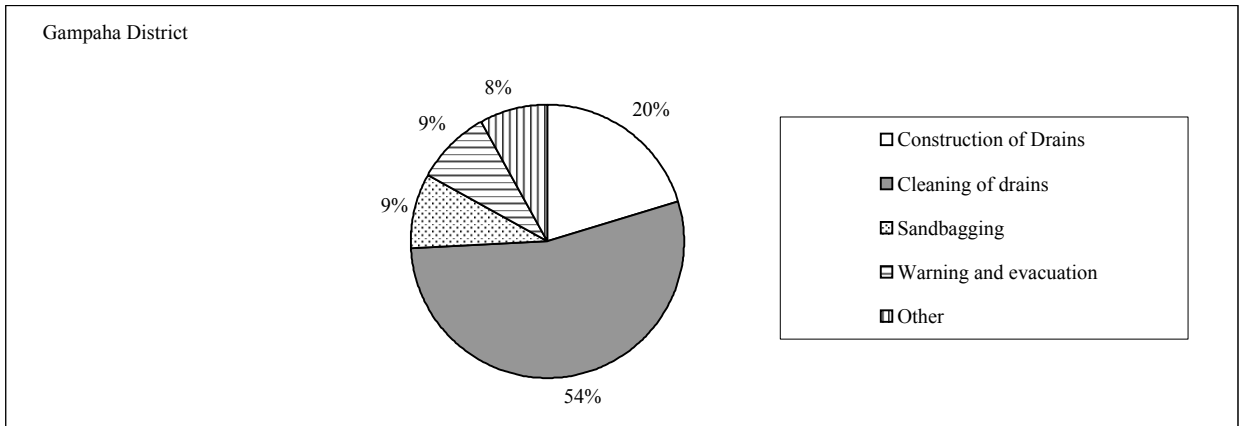
| District | Yes: Organized by people's own initiative | Yes: Organized with assistance by Government and/or Local | Yes: Organized with assistance by Non-government | No: People's individual efforts | No: No preparedness activities | Total |
|----------|---|---|--|---------------------------------|--------------------------------|-------|
| Gampaha | 9% | 10% | 3% | 37% | 41% | 100% |
| Colombo | 10% | 18% | 2% | 32% | 39% | 100% |
| Kalutara | 3% | 10% | 0% | 36% | 52% | 100% |
| Total | 8% | 15% | 2% | 34% | 41% | 100% |



37. Type of Activities

Type of Activities:

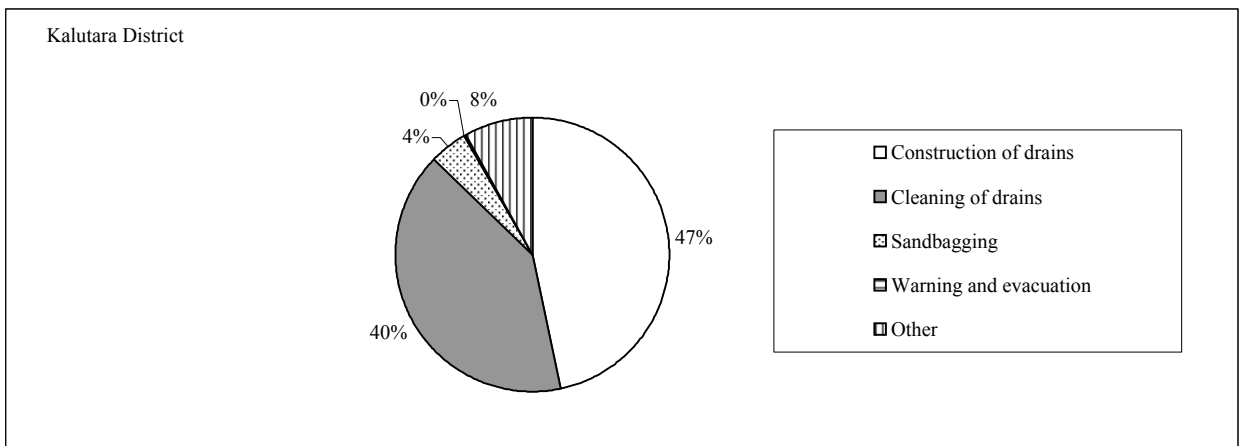
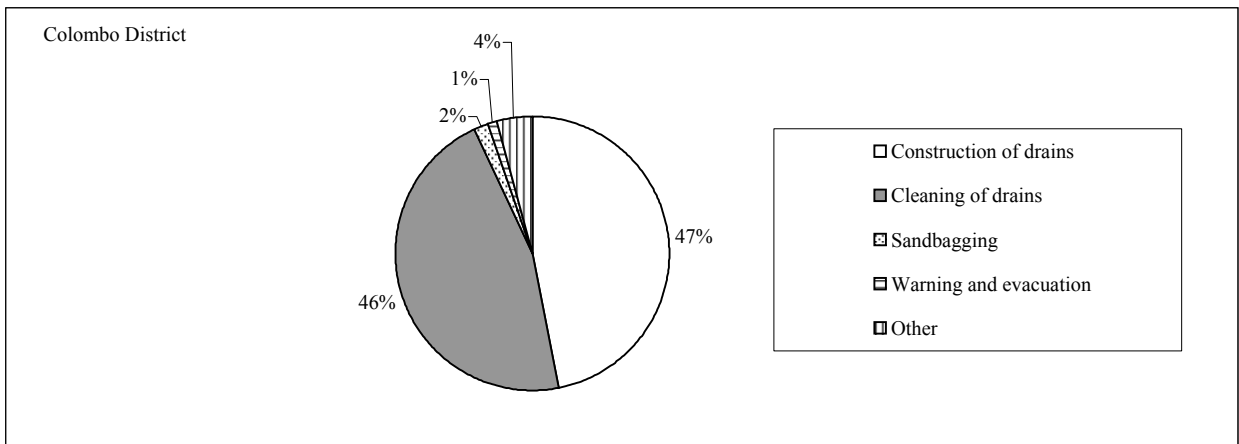
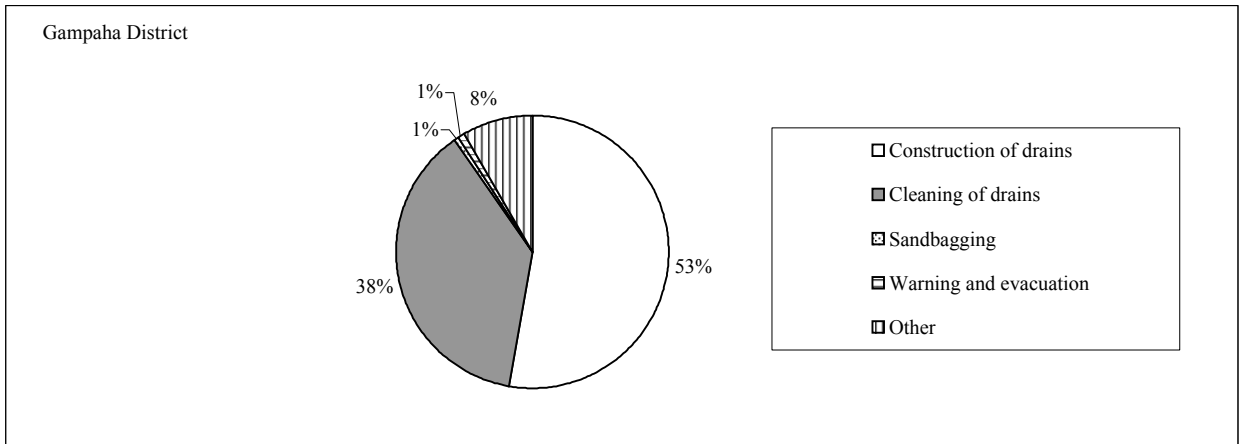
| District | Construction of Drains | Cleaning of drains | Sandbagging | Warning and evacuation | Other | Total |
|----------|------------------------|--------------------|-------------|------------------------|-------|-------|
| Gampaha | 20% | 54% | 9% | 9% | 8% | 100% |
| Colombo | 17% | 73% | 6% | 2% | 2% | 100% |
| Kalutara | 16% | 54% | 16% | 8% | 6% | 100% |
| Total | 17% | 67% | 8% | 4% | 4% | 100% |



38. Further Need of Activities

Further Need of Activities:

| District | Construction of drains | Cleaning of drains | Sandbagging | Warning and evacuation | Other | Total |
|----------|------------------------|--------------------|-------------|------------------------|-------|-------|
| Gampaha | 53% | 38% | 1% | 1% | 8% | 100% |
| Colombo | 47% | 46% | 2% | 1% | 4% | 100% |
| Kalutara | 47% | 40% | 4% | 0% | 8% | 100% |
| Total | 48% | 43% | 2% | 1% | 6% | 100% |



**DATA 4 : INITIAL ENVIRONMENTAL
EXAMINATION**

**THE STUDY ON STORM WATER DRAINAGE PLAN
FOR THE COLOMBO METROPOLITAN REGION
IN
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**

FINAL REPORT

VOLUME V : DATA BOOK

DATA 4 : INITIAL ENVIRONMENTAL EXAMINATION

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1. Objectives

The main objective of the IEE study is to grasp the current natural and social environmental conditions in the study area of the JICA Study. The results of the IEE study will be used for selection of environmental items to be examined in Environmental Impact Assessment (EIA) which will be carried out for the projects to be proposed in the JICA Study.

2. Survey Methodology

The Work shall be carried out through collection of information and data in the study area of the JICA Study as explained in the next section. The information and data collected shall be verified and supplemented through the field survey. The results of the examinations shall not only be described in the text, but also summarized in the designated form, maps with adequate scale, tables and graphs. In addition, the environmental standards and regulations, legal system relating to the implementation of EIA shall be collected and summarized.

3. Survey Area

The survey area consists of four basins in the Colombo Metropolitan Area such as lower Ja Ela basin, Kalu Oya basin, Greater Colombo basin, and Bolgoda basin. The survey area covers an area of 830 km².

4. Technical Specifications

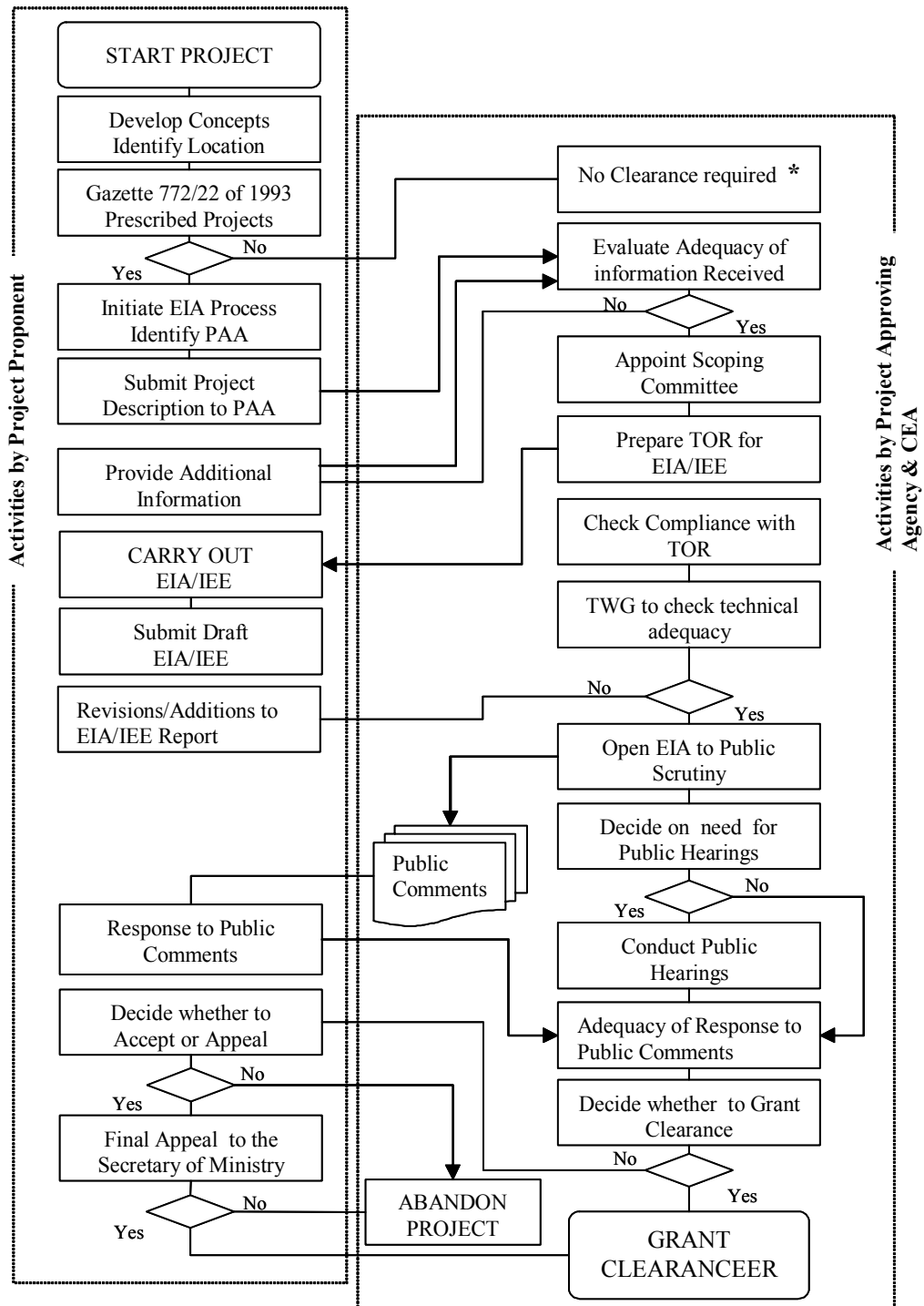
The outline of environmental characteristics in the study area shall be reviewed by collecting existing information from relevant agencies and organizations. The environmental items shown in Table 1 shall be covered for the review: topography, geology, soil, meteorology, land use, flow regime, air pollution, water pollution, soil pollution, waterborne disease, environmental protected area, ruins and cultural properties, fauna & flora, environmental management and legal aspects on environment. The legal aspects on environment include laws, regulations, and standards on environmental impact assessment (EIA) and environmental items as the above-mentioned. The information and data to be collected and examined are shown in Table 1.

5. Results of the Survey

The survey was conducted by subcontracting to the Lanka Hydraulic Institute. The full set of the survey report can be available in the SLLRDC office. Part of the survey results, especially collected data, were shown in the following.

Table 1 Scope of the Work

| Items to be Surveyed | Data and Information to be Collected | Contents to be Examined |
|--|--|--|
| <p>a) Environmental laws, regulations and standards: i) relevant environmental standards ii) procedures on environmental impact assessment (EIA)</p> <p>b) Other environmental items to be reviewed i) topography ii) geology iii) soil iv) meteorology v) land use vi) flow regime vii) air pollution viii) water pollution ix) soil pollution x) fauna and flora xi) waterborne disease xii) environmental protected area xiii) ruins and cultural properties</p> <p>c) Present natural environment conditions: habitat for fauna and flora in water bodies such as wetland, river, and coastal area, and use & development situations in those areas</p> <p>d) Solid waste management</p> <p>e) Waste water management</p> | <p>a) Environmental laws, regulations & standards: i) environmental standards on air quality, water quality, offensive odor, noise & vibration, toxic & hazardous waste, others if any ii) laws, regulations and guidelines on EIA</p> <p>b) Relevant data i) outline and characteristics of topography, and distribution of focal spots such as steep slopes, cliffs, wetlands, etc. ii) outline and characteristics of geology, and distribution of focal spots such as soft ground, faults iii) outline and characteristics of soil, its spatial distribution iv) annual meteorological data such as temperature and rainfall v) present land use map and/or data, land use plan vi) time-series data on flow rate, water level in major water bodies vii) present ambient air quality, mitigation measure taken in similar projects viii) pollution load by both household and industrial effluent ix) component and content of excavated and dredged residue soil from canal x) list of fauna & flora, precious species list, habitat distribution map xi) record of waterborne disease and its countermeasures xii) list and/or map on existing environmental protected area such as nature reserve, birds sanctuary, environmental and recreational area, future plan of such environmental protected area xiii) information on ruins and cultural properties such as temples and historical places</p> <p>c) Environmental study and/or plan in the study area, especially water bodies</p> <p>d) Record of collection, data on existing disposal site, generated volume of construction waste and residue soil, volume of dredged soil, volume of waste dumping into canals</p> <p>e) Existing and planned waste water management system such as sewage treatment method for household and industrial waste water and major discharge points, monitoring data of water quality in water bodies</p> | <p>a) Environmental laws, regulations & standards: i) environmental procedures related to following items ii) summary and flowchart on EIA procedure</p> <p>b) Relevant data i) - iv) summary of the data, explanation of areal features v) present and future land use maps vi) summary of the data, explanation of areal features vii) identification of possible site affected by dust and emission gas by construction vehicle and machinery viii) status of water pollution and identification of pollution sources ix) possibility of soil pollution due to disposal of excavated and dredged soils from river, canals and lakes, and its disposal method x) summary of the data, explanation of areal features xi) required measures for waterborne disease xii) summary of each environmental protected area, location map of existing and planned environmental protected areas xiii) summary of each properties such as location and status of importance</p> <p>c) Summary of on-going and planned environmental protection and rehabilitation method for water bodies, identification of priority water body to be protected</p> <p>d) Location and specification of existing and planned facilities at local authority basis, volume and contents of waste dumped, issues to be solved</p> <p>e) Location and specification of existing and planned facilities, volume and quality of waste water discharged into water bodies, issues to be solved</p> |



Note: * A Clearance Certificate is not issued unless a specific application is made to the CEA.

Figure 1 Flow Chart on EIA Procedure

Table 2 Land Use Data and Waste Disposal Sites Reported at Divisional Secretariat Level
(Names of places refer to the name of the respective GN division)

| Bolgoda Basin | Land Use Data | | | |
|---------------|---|--------------------------------|-------------|------------|
| DS Division | Solid Waste Disposal Sites of Local Authorities | Land Use Category | Extent (ha) | Percentage |
| Horana | 1. Behind Public Market of Horana- about 2 tractor loads per day 2. Handapangoda- Gurugoda - About 2 tractor loads per day | Built-up areas | 102 | 0.51 |
| | | Home-gardens | 7626 | 36.30 |
| | | Cultivated | 11442 | 57.45 |
| | | Forest | 680 | 3.41 |
| | | other | 66 | 0.33 |
| Bandaragama | | Built-up areas | 10 | 0.13 |
| | | Home-gardens | 2530 | 45.32 |
| | | Cultivated | 2826 | 51.18 |
| | | other | 156 | 2.32 |
| Millaniya | | Home-gardens | 2444 | 33.82 |
| | | Cultivated | 4615 | 63.68 |
| | | Forest | 64 | 0.88 |
| | | other | 104 | 1.44 |
| Moratuwa | 1. Dandenyawatta- Katubedda - About 40 tractor loads per day | Buildings and roads | 2267 | 95.9 |
| | | Cultivated | 79 | 3.3 |
| | | Cultivable | 28 | 1.2 |
| Panadura | 1. Modara Pit 2. Hirana | Built-up area | 510 | 14.2 |
| | | Home-gardens | 2460 | 68.6 |
| | | Rubber | 127 | 3.6 |
| | | Coconut | 122 | 3.4 |
| | | Paddy | 250 | 7.0 |
| | | Other crop | 48 | 1.3 |
| | | Grasslands | 10 | 0.3 |
| | | Mangroves | 30 | 0.8 |
| | | Marshes | 30 | 0.8 |
| Dodangoda | | Home-gardens | 1720 | 16.1 |
| | | Tea | 40 | 0.4 |
| | | Rubber | 6130 | 57.4 |
| | | Coconut | 30 | 0.3 |
| | | Kaduru (woodlands) | 50 | 0.5 |
| | | Paddy | 1990 | 18.6 |
| | | Other crops | 390 | 3.7 |
| | | Open forests | 20 | 0.2 |
| | | scrub-lands | 40 | 0.4 |
| | | Law-lying areas | 70 | 0.7 |
| | | Water bodies | 140 | 1.3 |
| Barren-lands | 60 | 0.6 | | |
| Kesbewa | 1. Mabathatha - About 4 tractor loads per day | Roads | 220 | 4.9 |
| | | Home-gardens & perennial crops | - | - |
| | | coconut | 2695 | 59.8 |
| | | Paddy | 660 | 14.6 |
| Homagama | No specific site | Uplands | 8852 | 83.1 |
| | | Lowlands | 1781 | 16.8 |

Continued.

| Bolgoda Basin | | Land Use Data | | |
|---------------|--|-------------------|-------------|------------|
| DS Division | Solid Waste & Disposal Sites of Pradeshiya Sabha | Land Use Category | Extent (ha) | Percentage |
| Kalutara | 1. Nagoda south | Urban | | 6.8 |
| | | Agricultural | | 86.3 |
| | | Forests | | 7.1 |
| Ratmalana | 1. Atthidiya South | Cultivated area | 54 | |
| | | Uncultivated Area | 50 | |
| | | Uncultivable area | 10 | |

| Greater Colombo Basin | | Land Use Data | | |
|-----------------------|--|---|-------------|------------|
| DS Division | Solid Waste & Disposal Sites of Pradeshiya Sabha | Land Use Category | Extent (ha) | Percentage |
| Kaduwela | 1. Kaduwela - About 5 to 6 tractor loads | Crown lands | 54 | 0.8 |
| | | Paddy-lands - submerged | 3223 | 49.7 |
| | | Paddy grown | 1183 | 18.3 |
| | | Coconut | 950 | 14.7 |
| | | Rubber | 797 | 12.3 |
| | | Minor export crops | 20 | 0.3 |
| | | Fruits | 13 | 0.2 |
| | | Vegetables & home-gardens | - | - |
| | | | 204 | 3.1 |
| | | | 37 | 0.6 |
| Timbirigasyaya | About 240 tones per day are disposed in 1. Jawatta 2. Mattakkuliya 3. Meepe | Residential | 1207 | 54.8 |
| | | Commercial | 113 | 5.1 |
| | | Industrial | 85 | 3.9 |
| | | Administrative | 15 | 0.7 |
| | | Transportation (bus-stands) | - | - |
| | | | 13 | 0.6 |
| | | Residential & commercial mixed | - | - |
| | | | 92 | 4.2 |
| | | Roads | 290 | 13.2 |
| | | Institutional (educational, cultural, religious & health) | - | - |
| | 324 | 14.7 | | |
| Kolonnawa | 1. Wellampitiya Canal - about 3 tractor loads per day is disposed 2. The balance is collected by Private Contractor Abans Company | Grasslands and marshes | 62 | 2.8 |
| | | Houses Roads & Industries | - | - |
| | | | 2003 | 58.9 |
| | | Cultivable lands | 424 | 12.5 |
| | | Uncultivable lands | 274 | 8.1 |
| | | Coconut | 118 | 3.5 |
| | | Rubber | 4 | 0.1 |
| | | Paddy | 88 | 2.6 |
| | | Vegetables & Fruits | 178 | 5.2 |
| | | Barren lands | 32 | 0.9 |
| Marshes | 279 | 8.2 | | |

Continued.

| Greater Colombo Basin | | Land Use Data | | |
|---------------------------|--|--|-------------|------------|
| DS Division | Solid Waste & Disposal Sites of Pradeshiya Sabha | Land Use Category | Extent (ha) | Percentage |
| Dehiwala | 1. Atthidiya South | Cultivated area | 60 | |
| | | Uncultivated Area | 54 | |
| | | Uncultivable area | 12 | |
| Maharagama | 1. Navinna - adjacent to High Level road | Total area | 3904 | |
| | | Built Up | 4 | |
| | | Home gardens | 7 | |
| Sri Jayawardenapura-Kotte | 1. Athul Kotte | Total area | 2184 | |
| | | Forest/Reservations | 10 | |
| | | Paddy | 5.2 | |
| | | Uplands | 4 | |
| Colombo- North & Central | 1. Take away from the Colombo Town | Residential | 2029 | 52.3 |
| | | Commercial | 287 | 7.4 |
| | | Industrial | 184 | 4.7 |
| | | Institutions (Educational, Cultural, Religious & Health) | - | - |
| | | Transportation (Bus-stands) | - | - |
| | | Administrative | 81 | 2.1 |
| | | Residential & commercial mixed & | 42 | 1.1 |
| | | Open lands | - | - |
| | | Parks/Playgrounds/ Cemeteries, etc | - | - |
| | | Grasslands | 283 | 7.3 |
| | | Scrub-lands | 152 | 3.9 |
| | | Houses | 10 | 0.3 |
| | | Partly cultivated | 48 | 1.2 |
| | | Under water | 28 | 0.7 |
| | | Barren Lands | 77 | 2.0 |
| | | | 7 | 0.2 |

Continued.

| Kalu Oya Basin | | Land Use Data | | |
|------------------|---|-----------------------|--|------------|
| DS Division | Solid Waste & Disposal Sites of Pradeshiya Sabha | Land Use Category | Extent (ha) | Percentage |
| Kelaniya | 1. Peliyagoda- About 15 to 20 tractor loads per day | Build-Up area | 160 | 7.2 |
| | | Home-gardens | 1400 | 63.1 |
| | | Agricultural | 10 | 0.5 |
| | | Paddy lands | 320 | 14.4 |
| | | Annual crops | 10 | 0.5 |
| | | Grasslands | 20 | 0.9 |
| | | Marshes | 240 | 10.6 |
| | | Water bodies | 60 | 2.7 |
| Mahara | 1. Appugewatta- About 8 to 10 tractor loads per day | Uplands | 993 | 21.7 |
| | | Lowlands | 725 | 15.8 |
| | | Vegetable cultivation | 8 | 0.2 |
| | | Fruit growing | 194 | 4.2 |
| | | Coconut | 1886 | 41.2 |
| | | Rubber | 747 | 16.3 |
| | | Minor export crops | 26 | 0.6 |
| | | Biyagama | 1. Waste is taken away from the PS division by Abans Company, the contractor | Buildings |
| Non-agricultural | 80 | | | 1.3 |
| Home gardens | 3750 | | | 60.5 |
| Rubber | 160 | | | 2.6 |
| Coconut | 490 | | | 8.0 |
| Annual crops | 50 | | | 0.8 |
| Paddy | 1250 | | | 20.2 |
| Other crops | 50 | | | 0.8 |
| Scrub-lands | 20 | | | 0.3 |
| Grasslands | 10 | | | 0.2 |
| Marshes | 50 | | | 0.8 |
| Water bodies | 140 | | | 2.3 |

Continued.

| Ja Ela Basin | | Land Use Data | | |
|--------------|---|-------------------|-------------|------------|
| DS Division | Solid Waste & Disposal Sites of Pradeshiya Sabha | Land Use Category | Extent (ha) | Percentage |
| Wattala | No specific site | Build-Up areas | 180 | 4.0 |
| | | Home gardens | 1810 | 39.3 |
| | | Coconut | 16 | 0.4 |
| | | Mixed crops | 280 | 6.1 |
| | | Paddy | 160 | 3.5 |
| | | Other crops | 10 | 0.2 |
| | | Wood lands | 20 | 0.4 |
| | | Mangroves | 210 | 4.6 |
| | | Marshes | 1700 | 36.9 |
| | | Water bodies | 180 | 3.9 |
| | | Barren Lands | 60 | 0.8 |
| Gampaha | 1. Ambanwita - Makewita | Buildings | 70 | 0.8 |
| | | Home gardens | 5780 | 64.6 |
| | | Coconut | 630 | 7.0 |
| | | Rubber | 90 | 1.0 |
| | | Annual crops | 70 | 0.8 |
| | | Paddy | 2250 | 25.1 |
| | | Other crops | 20 | 0.2 |
| | | Water bodies | 40 | 0.4 |
| Ja Ela | 1. Domestic waste is dumped into natural streams by individuals | Buildings | 2647 | 33.4 |
| | | Agricultural | 155 | 2.0 |
| | | Rubber | 14 | 0.2 |
| | | Coconut | 2376 | 30.0 |
| | | Annual crops | 517 | 6.5 |
| | | Paddy | 1210 | 15.3 |
| | | Other crops | 71 | 0.9 |
| | | Wood lands | 40 | 0.5 |
| | | Grasslands | 10 | 0.1 |
| | | Mangroves | 190 | 2.4 |
| | | Water bodies | 600 | 7.6 |
| | 90 | 1.3 | | |

Table 3 Sensitive and Affected Areas Reported at Divisional Secretariat Level

(Names of places refer to the name of the respective GN division)

| DS Division (Bolgoda Basin) | Law-lying Areas/Wetlands/Swamps | Flood Prone Areas | Historically/Culturally Important Sites |
|-----------------------------|--|---|---|
| Horana | 1. Gulupana | 1. Gulupana 2. Horana north | 1. Raja Maha Viharaya - Horana 2. Ancient Temple - Balabobuwa |
| Bandaragama | 1. Maha Bellana 2. Hidelpitiya 3. Panape | 1. Kidelpitiya 2. Maha Bellana 3. Panape | 1. Raja Maha Viharaya - Labugama 2. Weligala Raja Maha Viharaya -Lenawara |
| Millaniya | 1. Uduwara 2. Yatawara 3. Galpana 4. Pathakada 5. Palpola | 1. Pathakada 2. Uduwara east, west north & south 3. Yatawara north 4. Delgoda 5. Hadurupitiya 6. Bogamuwa 7. Kalahitiya 8. Galpana 9. Pathagoda 10. Palpola | 1. Raja Maha Viharaya - Labugama |
| Moratuwa | 1. Dandeniya Watta - Katubedda 2. Thelawala 3. Zoysapura | 1. Uyana 2. Dandeniya Watta 3. Telawala 4. Korlawella | 1. St Sebastian Church - Moratuwa 2. Raja Maha Viharaya - Moratuwa 3. Raja Maha Viharaya - Moratumulla |
| Panadura | 1. Sarikkamulla (673) 2. Miriyawatta (672 C) 3. Keselwatta (672) | 1. Sarikkamulla 2. Henamulla 3. Pallimulla 4. Miriyawatta 5. Diggala 6. Keselwatta 7. Talpitiya north 8. Talpitiya south 9. Palliyagoda 10. Kuda-Wadduwa | 1. Kande Virharaya - Keselwatta 2. Historical Panadura Debate Site -Panadura 3. Christian Church - Panadura |
| Dodangoda | 1. Tebuwana 2. Palapitiyagoda 3. Ukwattagoda 4. Serupita | 1. Galgeththawala 2. Koholana north & south 3. Adhikarigoda 4. Ukwatta 5. Bolossagama 6. Serupita east & west 7. Gamagoda west 8. Bombuwala north, west & central 9. Nabada 10. Pahala Nabada 11. Tebuwana east, & west 12. Palapitiyagoda | 1. Kudugala waterfall - kudugala 2. Waturana forest block - Kudugala, Bombuwela 3. Granthagara Pirivena-Thebuwana |

| DS Division (Bolgoda- Basin) | Low-lying Areas/Wetlands/ Swamps | Flood Prone Areas | Historically/Culturally Important Sites |
|---------------------------------|--|---|--|
| Kesbewa | <ol style="list-style-type: none"> 1. Diulapitiya west & north 2. Werahara south 3. Bokundara | <ol style="list-style-type: none"> 1. Papiliana east & west 2. Diulapitiya east & west 3. Raththanapitiya 4. Bokundara Arawwala north 5. Thumbowala north 6. Bellanwila 7. Werahera | <ol style="list-style-type: none"> 1. Raja Maha Viharaya - Bellanwila 2. Sunethra Devi Pirivena - Papiliana 3. Bird Sanctuary - Aththidiya 4. Boo Tree- Pillewa 5. Devalaya - Ganewatta 6. Church - Kotagedara |
| Homagama | <ol style="list-style-type: none"> 1. Wataraka south 2. Artigala north 3. Pahuwa 4. Jalthara | <ol style="list-style-type: none"> 1. Jalthra 2. Henpita 3. Artigala east & west 4. Batawala 5. Pathaluwa 6. Mee goda north 7. Wataraka north | <ol style="list-style-type: none"> 1. Kande Viharaya - Brahmanagama |
| Kalutara | <ol style="list-style-type: none"> 1. Mastiya 2. Mawala 3. Morontuduwa 4. Kalapugama 5. Panapitiya 6. Diyagama | <ol style="list-style-type: none"> 1. Jalatota 2. Thekkawatta 3. Ethanamadala 4. Jawatta 5. Thutupola 6. Kalapuwa 7. Katukurunda 8. Rajawatta 9. Pulatan 10. Nagoda 11. Paraduwa 12. Panapitiya 13. Diyagama 14. Dodanmulla 15. Kalutara south 16. Nuge goda 17. Kuda- Waskaduwa 18. Kuda-Gonaduwa 19. Maha-Gonaduwa | <ol style="list-style-type: none"> 1. Ganewatta Ancient Temple- Talduwa 2. Sri Subhuthi Viharaya - Kuda Waskaduwa 3. Mal Asgiri Viharaya - Ukgal goda 4. Old Gun-Powder Store - Jalatota 5. Kaluthara Boo Tree - Kalutara south |
| Ratmalana | <ol style="list-style-type: none"> 1. Around Attidiya canal | <ol style="list-style-type: none"> 1. Wedikanda 2. Vihara 3. Ratmalana east 4. Ratmalana west 5. Attidiya south 6. Kandawala | <ol style="list-style-type: none"> 1. Sri Dharmarama Viharaya - Vihara 2. Goona Kovila Devalaya - Ratmalana west |

Continued.

| DS Division (Greater Colombo Basin) | Low-lying Areas/Wetlands/ Swamps | Flood Prone Areas | Historically/Culturally Important Sites |
|---|--|--|--|
| Kaduwela | 1. Batewela 2. Walihida 3. Pahala Bomiriya | 1. Batewela 2. Walihida 3. Pahala Bomiriya | 1. Paththini Devalaya - Nawagamuwa 2. Rantabu Paththini Devalaya- Haduwa 3. Paththini Devalaya - Horatota |
| Timbirigasyaya | 1. Kirulapana 2. Kirula 3. Dematagoda | 1. Borella north & south 2. Dematagoda 3. Wanathamulla 4. Gothamipura 5. Kirula 6. Kirulapana 7. Narahenpita 8. Havlok Town 9. Wellawatta north & South | 1. Ashokaramaya - Thimbirigasyaya 2. Weluwanaramaya - Wellawatta 3. Isipathanaramaya - Havlok Town 4. St Anthony's Church - Dematagoda 5. St Mary's Church - Bambalapitiya 6. St Anthony's Church -- Kollupitiya 7. Kathirashan Temple - Bambalapitiya 8. Dawatagaha Mosque - Colombo 7 9. BMICH 10. National Museum 11. Vihara Maha devi Park 12. National Arts theatre 13. Kabolana Viharaya - Kollupitiya/wellawatta |
| Kolonnawa | 1. Kotikawatta 2. Ambatale 3. Wellampitiya 4. Weragoda 5. Malpura 6. Sedawatta 7. Mahagegamuwa | 1. Megoda Kolonnawa 2. Thotuwila 3. Sedawatta 4. Veheragoda 5. Wadulla 6. Meetotamulla 7. Orugodawatta 8. Wallampitiya 9. Dhahampura 10. Kittam Pawwa | 1. Mulleria Rock - Mulleriawa 2. Kithsirimevan Kelaniya - Kelanimulla |
| Dehiwala | None | 1. Dehiwala east 2. Kohuwala 3. Kaudana east 4. Wilawala 5. Hath Bodhiya 6. Dutugamunu | 1. Gal Viharaya - Udyanaya 2. Vishnu Devalaya - Nadimale 3. Subodharamaya - Karagampitiya 4. Buddha Statue - Karagampitiya 5. Abesena Dagaba - Dehiwala 6. Hathbodhi Viharaya- Hathbodhiya |

Continued.

| DS Division (Greater Colombo Basin) | Low-lying Areas/Wetlands/ Swamps | Flood Prone Areas | Historically/Culturally Important Sites |
|---|---|--|---|
| Maharagama | 1. Jambugasmulla 2. Gangodawila south | 1. Mirihana north 2. Mirihana south 3. Pragathipura 4. Jambugasmulla 5. Gangodawila 6. Maharagama Town | 1. Iyamporuve Gangathilake Viharaya - Wattegama 2. Vishnu Devalaya - Thalawathugoda 3. Thalawathugoda Bodhi Viharaya - Thalawathugoda 4. Ganelanda Viharaya - Thalawatrugoda 5. Viharashtha Vishnu Devalaya - Thalawathugoda 6. Depanama Ganegoda Viharaya - Kottawa south 7. Dhammaniketharamaya - Kottawa south 8. Sri Wijesingharamaya - Maharagama |
| Sri Jayawardenapura- Kotte | 1. Pagoda (519 A) 2. Welikada east (514) 3. Obesekerapura (514 C) 4. Navala east (520 B) 5. Koswatta (520 A) | 1. Welikada east (514) 2. Welikada west (514 A) 3. Obesekerapura (514 C) 4. Pagoda (519 A) 5. Koswatta (520 B) 6. Navala east (520 B) 7. Athul Kotte (521) | 1. Sri Deepachiththa Ancient Temple - Nawaka, Kotte 2. Sudharmarama Ancient Temple - Rajagiriya 3. Athula Viharaya - Gangodawila 4. Siri Parakumba Dhamma Viharaya - Kotte |
| Colombo- North & Central | None | 1. Mattakkuliya 2. Bloemandhal 3. Grandpas 4. Kettarama 5. Maligawatta 6. Navagampura 7. Modara 8. Aluth Mawatha | 1. Modara Temple 2. Hunupitiya Gangaramaya - Colombo 2 3. Mul Sendol Church - Colombo 14 4. Paramananda Ancient Temple - Colombo 13 5. St Lucia Church - Kotahena 6. St Anthony's Church - Kochcikade 7. Hindu Temple - Slave Island 8. Jumma Muslim Mosque - Main Street |

Continued.

| DS Division (Kalu Oya Basin) | Low-lying Areas/Wetlands/ Swamps | Flood Prone Areas | Historically/Culturally Important Sites |
|---------------------------------|--|---|--|
| Kelaniya | <ol style="list-style-type: none"> 1. Wanawasala east & west 2. Wedamulla 3. Dalugama 4. Digpitiya 5. Meegahawatta 6. Mawalla 7. Pilapitiya | <ol style="list-style-type: none"> 1. Pattiya north, east & west 2. Peliyagoda Gangaboda 3. Peliyagoda Gangaboda north 4. Peliyagodawatta 5. Meegahawatta 6. Pethiyagoda 7. Sinharamulla | <ol style="list-style-type: none"> 1. Raja Maha Viharaya - Halarahiya 2. Vidyalankara Pirivena - Kelaniya |
| Mahara | <ol style="list-style-type: none"> 1. Appugewatta 2. Ederamulla 3. Akbar Town 4. Pinnameda | <ol style="list-style-type: none"> 1. Akbar Town 2. Pinnameda 3. Ederamulla west 4. Appugewatta 5. Gongitota | <ol style="list-style-type: none"> 1. Ancient Temple - Wabada 2. Galedanda Raja Maha Viharaya - Galedanda 3. Sri Punyalankara Ancient Temple - Rammuthugala 4. St Sebastian's Church - Wattala |
| Biyagama | <ol style="list-style-type: none"> 1. Yabaraliwa north & south 2. Biyagama east & south 3. Mabima west 4. Bollagala | <ol style="list-style-type: none"> 1. Gonawela west 2. Talwatta 3. Bollagala 4. Pattiwela south 5. Mabima west 6. Mabima east 7. Biyagama south 8. Biyagama east 9. Yabaraliwa north 10. Yabaraliwa south 11. Malwana town | <ol style="list-style-type: none"> 1. Ganegala - Mabima west 2. Rakshapana Rock Cave - Malwana 3. Castle of King Rajasinghe - Unahitiwala |

Continued.

| DS Division (Ja Ela Basin) | Law-lying Areas/Wetlands/ Swamps | Flood Prone Areas | Historically/Culturally Important Sites |
|-------------------------------|---|--|---|
| Wattala | <ol style="list-style-type: none"> 1. Muthurajawela 2. Batagala 3. Kerawalapitiya 4. Bopitiya 5. Galwatiya | <ol style="list-style-type: none"> 1. Balagala 2. Kerawalapitiya 3. Welikadamulla 4. Hendala north & south 5. Bopitiya Thuduwa 6. Galwetiya 7. Awariwatta 8. Thelagapata 9. Hekitta | <ol style="list-style-type: none"> 1. Telagapatha Temple 2. Magul pokuna 3. Avariawatta Road used by King Rajasinghe 4. Galwatiya where King Rajasinghe lodged |
| Gampaha | <ol style="list-style-type: none"> 1. Rathmalwita 2. Mabima 3. Welikada 4. Abanwita 5. Kirindiwita | <ol style="list-style-type: none"> 1. Makewita 2. Mabima 3. Gonagaha 4. Welikada 5. Kirindiwita 6. Abanwita 7. Rathmalwita | |
| Ja Ela | <ol style="list-style-type: none"> 1. Ekala - Muthurajawela (206) 2. Dandugama- Kalaeliya (194) 3. Dehiyagana 4. Kudella 5. Indipitiya | <ol style="list-style-type: none"> 1. Ekala 2. Mahawatta 3. Dandugama 4. Dehiyagana 5. Thudella west 6. Thudella north 7. Indipitiya 8. Kalaeliya | <ol style="list-style-type: none"> 1. St Mary's Church- Kudella 2. Gammadupitiya Sathara Maha Devalaya - Dandugama 3. Ancient Patthini Devala 4. St Anthony's Church - Batagama north 5. Juwam's Church - Nagoda 6. Sri Wimalarathnaramaya Temple 7. Deepadukkarama Sujatha Viharaya - Niwandana |

Table 4 Environmental Problems Reported at Divisional Secretariat Level

(Names of places refer to the name of the respective GN division)

| DS Division (Bolgoda Basin) | Major Pollution Sources | Polluted Water Bodies | Prevalent Waterborne Diseases |
|-----------------------------|--|---|--|
| Horana | 1. Gurugoda- Handapangoda waste recycling project in Horana north; 2. Olabuwa stone quarry; 3. Industrial effluents from large industries in Moragahahena area. | 1. Horana North canal system; 2. Waterways in Gulupana | None |
| Bandaragama | 1. Rygama, Aluthgama & Kotalawala stone quarries; 2. Effluents from the garment industry (Lakmal) at Wahawila; 3. Flooding in Panape, Maha-Bellana, & Gidelpitiya | 1. Bolgoda canal | None |
| Millaniya | 1. Flooding in Kalu Gganga Basin | 1. Haltota-Ela in Ballantuwawa; 2. Kepu-Ela in Galapatha | None |
| Moratuwa | 1. Effluent discharge from industries in Haldemulla, Telawala, & Angulana areas into streams; 2. Water stagnation in canals/streams | 1. Weras Ela, 2. Bolgoda Lake, | Dengue fever & Skin Ailments in Zoysapura & Angulana |
| Panadura | 1. Discharge of industrial effluent into all streams (Talpitiya Ela, Heenkata Ela & Hambayawala Ela) | 1. Talpitiya Ela & Heenkata Ela in Talpitiya; 2. Kawaditawala Ela in Diggala | Dengue fever in Keslwaththa |
| Dodangoda | 1. Saw dust from timber mills in Bombuwala; 2. Flooding in Galhenthawala, Koholana, Adhikarigoda, Ukwatta, Bolossagama & Gamagoda; 3. Sand mining in Koholana, Ukwatta, Bolossagama Palapitiyagoda & Thebiwana; 4. Effluent from Heyles Industries into streams | 1. Streams in Thebuwana | None |
| Kesbewa | 1. Lack of waste disposal site for the Pradeshiya Sabha; 2. Polluted water | 1. Katu Ela in Diulapitiya and Bellanwila | Diseases carried by mosquitoes in Diulapitiya |

Continued.

| DS Division (Bolgoda Basin) | Major Pollution Sources | Polluted Water Bodies | Prevalent Waterborne Diseases |
|--------------------------------|--|--|--|
| Homagama | <ol style="list-style-type: none"> 1. Stone quarries emitting rock dust and noise; 2. Lack of waste disposal site & dumping of waste on road sides promoting flies; 3. Lack of proper drainage canals; 4. Discharge of industrial effluents into streams | <ol style="list-style-type: none"> 1. Pusseli Oya in Wataruka | Diseases carried by mosquitoes & flies in Wataruka |
| Kalutara | <ol style="list-style-type: none"> 1. Noise from stone quarries and mosquito breeding in abandoned quarries in Alis Watta, Kitulawa, Wijerathna Watta & Ukgalgoda; 2. Effluent from quair (coconut husk) processing industries, Hotels and saw dust in Nugegoda, Pothupitiya, Kapuhena, Kuda Waskaduwa & Dediawala; 3. Dumping of urban waste into GS divisions of Kalutara north & south, & Kuda Waskaduwa | <ol style="list-style-type: none"> 1. Kaha Une Ela in Jawatta; 2. Kepu Ela in Diya - Paraduwa & Dodanmulla; 3. Ekkalagoda Ela in Paraduwa | Mosquito carried diseases like |
| Ratmalana | <ol style="list-style-type: none"> 1. Release of industrial effluents into Lunawa Ela 2. Sea erosion mostly in Pirivena, Wedikanda, Obowita, & Aththidiya, | <ol style="list-style-type: none"> 1. Lunawa Els in Ratmalana west & east, Wedikanda & Vihara; 2. Aththidiya Ela in Aththidiya south; 3. Werassa Ganga in Kandawala | Dengue fever carried by mosquitos in Ratmalana east & west, Vihara, & Wedikanda; Phlegm & foot infection in the same areas |

Continued.

| DS Division (Greater Colombo Basin) | Major Pollution Sources | Polluted Water Bodies | Prevalent Waterborne Diseases |
|---|---|---|--|
| Kaduwela | <ol style="list-style-type: none"> 1. Stone quarries in Athurigiriya, Hokandara & Walgama; 2. Sand mining in Kelani Ganga in Kaduwela, Ranala, Nawagamuwa, Ihala Bomiriya; 3. Lack of waste disposal sites | <ol style="list-style-type: none"> 1. Kelani Ganga due to dumping of waste on river banks in Ranala and Kaduwela; | Malaria (Kaduwela) |
| Timbirigasyaya | <ol style="list-style-type: none"> 1. Constructions of the Baseline road; 2. Unauthorized buildings in Wellawatta (north and south), Kirulapane, & Kirula; 3. Effluents & gas emissions from industries in Narahenpita and Kirulapane; 4. Destruction of mangroves in coastal areas of Wellawatta & Kollupitiya | <ol style="list-style-type: none"> 2. Kirulapane Ela, in Kirulapane & Mullawatta; 3. Dematagoda Elain in Dematagoda | Dengue fever in Kirulapane, Dematagoda & Wellawatta; Filaria in Wellawatta & Kirulapane |
| Kolonnawa | <ol style="list-style-type: none"> 1. Noise and gas emission from Orugodawatta industrial complex; 2. Discharge of industrial effluent into water ways 3. Unplanned reclamation of low-lying areas in Sedawatta, Kittampahuwa, Veheragoda & Wellampitiya. | <ol style="list-style-type: none"> 1. Wellampitiya Ela, 2. Kittampahuwa Ela, 3. Jadi Ela, 4. Dahamwela Ela, 5. Dematagoda Ela | Filaria & Dengue fever in Kittampahuwa & Wellampitiya |
| Dehiwala | <ol style="list-style-type: none"> 1. Sea erosion in Dehiwala west 7 Jayathilaka; 2. Stinking drains 3. High population density related problems; 4. Noise and air quality problems due to heavy vehicular traffic | <ol style="list-style-type: none"> 1. Lunawa Canal; 2. Dehiwala Canal; 3. Weras Ganga | Dengue fever in Nedimala, Udyana, Kalubowila & Wilwala |
| Maharagama | <ol style="list-style-type: none"> 1. Waste disposal into canals and waterways and lack of a proper drainage system; 2. Lack of zoning for land use; 3. Unplanned reclamation of low-lying areas; 4. Unauthorized buildings; 5. Noise and air quality problems due to heavy vehicular traffic. | <ol style="list-style-type: none"> 1. Diyawanna Oya in Pragathipura; 2. Katu Ela in Gangodawila south & Jambugasmulla; 3. Canals running through the Maharagama town | Dengue, filaria and other mosquito carried diseases in Mirihana, Pragathipura, & Maharagama Town |
| Sri Jayawardenapura Kotte | <ol style="list-style-type: none"> 1. Dust due to renovation of Chapel Road 2. Dust due to renovation of Manchanayake Garden Road | <ol style="list-style-type: none"> 1. Katu Ela; 2. Heen Ela; 3. Tributaries of 4. Diyawanna Oya | Diarrhea, Dengue, filaria & Japanese encephalitis in Gangodawila, Pagoda & Welikada |

Continued.

| DS Division (Greater Colombo Basin) | Major Pollution Sources | Polluted Water Bodies | Prevalent Waterborne Diseases |
|---|--|--|--|
| Colombo- Central and North | <ol style="list-style-type: none"> 1. Industrial pollution of the environment; 2. Waste discharge from the Oil refinery; 3. Waste from the tannery; 4. Discharge of toilets to waterways as they are not connected to the sewerage system; 5. Noise and air quality problems due to heavy vehicular traffic | <ol style="list-style-type: none"> 1. Heen Ela; 2. Tributary of Beira Lake in Maligawatta; 3. Kettarama Ela; 4. Kimbula (Jadi) Ela in Modera; 5. St Sebastian Canal in Grandpass north & Nawagampura; 6. Ibbagewatte Ela | Dengue and Filaria in Nawagampura, Bloemandol, Grandpass & Kettarama |

Continued.

| DS Division (Kalu Oya Basin) | Major Pollution Sources | Polluted Water Bodies | Prevalent Waterborne Diseases |
|------------------------------------|--|---|--|
| Kelaniya | <ol style="list-style-type: none"> 1. Industries in Peliyagoda; 2. Blocked waterways to which waste is dumped (Hatawila Ela in Dalugangoda); 3. Ad hoc reclamation of low-lying areas in Kelaniya; 4. Waste disposal on road sides and stream banks in Dalugama & Kelaniya; 5. Unauthorized buildings | <ol style="list-style-type: none"> 1. Hatawila Ela in Dalugangoda; | Dengue fever in Dalugangoda and Wanawasala; Filariasis in Kelaniya & Dalugama. |
| Mahara | <ol style="list-style-type: none"> 1. Construction of super highway in Kerawalapitiya; 2. Town development project of Kadawatha; 3. Waste dumping into waterways in Kopiwatta & Ihala Karagaha-amuna; 4. Unplanned reclamation of low-lying areas | <ol style="list-style-type: none"> 1. Waterways in Mahara & Eldeniya | Dengue fever in Mahara & Gongitota. |
| Biyagama | <ol style="list-style-type: none"> 1. Rock dust and noise from stone quarries in Heiyantuduwa south & west, Mabima east & west, Jabaraliya, & Malwana 2. Air pollution and poisoning of well water due to gas factories 3. Pollution of Heiyantuduwa tank due to waste from free Trade zone; 4. Creation of stagnant water pools by abandoned stone quarries & clay mining in tank beds; 5. Sand mining in Kelani Ganga in Bollagala & Mabima | <ol style="list-style-type: none"> 1. Raggahawatta Ela; 2. Unawatuna Ela; | Dengue & other mosquito borne diseases in Heiyantuduwa, Biyagama, Walgama 7 Yatihena |

Continued.

| DS Division (Ja Ela Basin) | Major Pollution Sources | Polluted Water Bodies | Prevalent Waterborne Diseases |
|-------------------------------|--|--|--|
| Wattala | <ol style="list-style-type: none"> 1. Saw dust emission from saw mills in Mabole; 2. Industrial effluent discharge into waterways; 3. Water stagnation in waterways; 4. Unauthorized buildings; 5. Lack of a certain place to dispose waste | <ol style="list-style-type: none"> 1. Kal Ela in wattala; 2. Hamiltan Canal in Kerawalapitiya &Elakanda; 3. Balagala Ela | Dengue fever in Hendala, Balagala, Elakanda, Kerawalapitiya & Uswetakeiyawa |
| Gampaha | <ol style="list-style-type: none"> 1. Inadequate flushing of the drainage sytem in the city leading to stinking and mosquito breeding | <ol style="list-style-type: none"> 1. Drainage system of the town; 2. Uruwal Oya | |
| Ja Ela | <ol style="list-style-type: none"> 1. Discharge of waste from animal farms and slaughter houses into waterways; 2. Discharge of industrial effluents into waterways; 3. Noise and air quality problems due to heavy vehicular traffic in Colombo Negombo road; 4. Water stagnation in low-lying areas. | <ol style="list-style-type: none"> 1. Old Dutch canal in Maeliya, Wawala & Indipitiya; 2. Ja Ela in Indipitiya, Maeliya & Yakkaduwa; 3. Thotupola Ela in Kaleliya; 4. Heen Ela in Thudalla; 5. Muthurajawela in Thudella, Nagoda, Indipitiya, Wallagampitiya, & Wathuwala; 6. Depa Ela & Mahadora Ela in Dandugama &Deniyagana; 7. Attanagalu Oya in Mahawatta & Ekala. | Dengue fever in Ekala, Mahawatta & Thudella; Leptospirosis (Mee Una) - a deadly disease caused by a pathogen carried by rats and released to water with their faecal matter, especially in rice fields, and then transmitted to humans through contact of such water is reported in Ekala, Mahawatta, Wawala, Weligampitiya & Thudella |

Table 5 Data Sources of Water Quality for the Kelani Ganga

| Location and Source | Parameters Measured | Dates of Measurement | | Number of Measurements |
|--|--|----------------------|-------|------------------------|
| | | From | To | |
| NWSDB - Ambatale | COD | 1/94 | 5/99 | 104 |
| | BOD | 2/94 | 5/99 | 82 |
| | NO ₃ | 1/70 | 5/99 | 82 |
| | NH ₃ | 1/70 | 5/99 | 59 |
| | Colour | 8/81 | 5/99 | 176 |
| | NO ₂ | 1/70 | 11/98 | 66 |
| CEA – five locations on river from Glencorse to Colombo and that of the Seethawaka tributary | COD | 11/95 | 5/98 | 11 |
| | BOD | 12/94 | 5/98 | 23 |
| | NO ₃ | 12/94 | 5/98 | 20 |
| | NH ₃ | 12/94 | 5/98 | 19 |
| | NO ₂ | 12/94 | 5/98 | 28 |
| | PO ₄ | 12/94 | 3/98 | 10 |
| | Coliforms | 12/94 | 5/95 | 12 |
| | Dissolved Oxygen | 12/94 | 5/98 | 28 |
| NARA – four locations from Kaduwela to Colombo | BOD, NO ₃ , NH ₃ , NO ₂ , PO ₄ | 6/93 | 11/93 | 7 |
| NBRO – just upstream of Ambatale (day of measurement not available) | COD | 1/89 | 2/90 | 11 |
| | NO ₃ , NH ₃ | 1/89 | 5/93 | 30 |
| | PO ₄ | 6/89 | 7/93 | 17 |
| | Coliforms | 2/89 | 7/93 | 41 |
| NARA – three locations around outlet of Biyagama EPZ effluent canal | BOD | 7/87 | 6/89 | 40 |
| | NO ₃ , NH ₃ | 8/87 | 6/89 | 40 |
| | NO ₂ | 8/87 | 6/89 | 29 |
| | PO ₄ , Coliforms | 8/87 | 6/89 | 34 |
| | | 9/87 | 6/89 | 33 |

Note: NWSDB – National Water Supply and Drainage Board – unpublished data

CEA – Central Environmental Authority – unpublished data

NARA – National Aquatic Resources Authority – de Alwis (1991 and 1998) , de Alwis and Dassanayake (1993)

NBRO – National Building Research Organisation – unpublished data

Source: Western River Basins Sector Project (2000)

Table 6 Reported Recent Water Quality Data of Kelani Ganga

| Data Set | | BOD (mg/l) | COD (mg/l) | NO ₃ (mg/l) | NH ₃ (mg/l) | PO ₄ (mg/l) |
|--|--------------------|-----------------------|-----------------------|---------------------------|---------------------------|---------------------------|
| Source and Location | | | | | | |
| CEA Seethawaka Ganga | average (range) | 2.7 (0.4 – 8.4) | 15.5 (4.0 – 39.0) | 0.19 (0.01 – 1.05) | 0.2 (0.01 – 0.63) | 0.02 (– 0.05) |
| CEA – Glencorse | average (range) | 2.3 (0.4 – 7.6) | 16.5 (2 – 46) | 0.26 (0.01 – 0.8) | 0.23 (0.01 – 0.68) | 0.02 (0.01 – 0.1) |
| CEA – Hanwella | average (range) | 2.26 (0.4 – 7.2) | 20.1 (10.0 – 52.0) | 0.24 (0.01 – 0.91) | 0.32 (0.04 – 0.73) | 0.03 (0.01 – 0.23) |
| CEA – Kaduwela | average (range) | 1.87 (0.4 – 5.8) | 16.4 (4.0 – 46.0) | 0.25 (0.01 – 0.67) | 0.42 (0.04 – 1.67) | 0.11 (0.01 – 1.09) |
| NARA Kaduwela | average (range) | 7.2 (3.3 – 14.3) | | 1.2 (0.2 – 2.7) | 1.7 (0.4 – 3.9) | 0.02 (0.01 – 0.03) |
| NARA Pattiwala (1.5 km upstream of Ambatale) | average (range) | 4.8 (3.0 – 11.5) | | 1.35 (0.36 – 2.8) | 1.9 (0.51 – 3.63) | 0.02 (0.01 – 0.03) |
| NARA Biyagama | average (range) | 18 (5.0 – 55.0) | | 0.43 (0.01 – 2.64) | 0.5 (0.01 – 2.90) | 0.06 (0.01 – 0.20) |
| NBRO – Welivita (just upstream of Ambatale) | average (range) | | 12.2 (10.0 – 7.0) | 0.62 (0.04 – 1.2) | 0.12 (0.01 – 0.6) | 0.11 (0.013–0.5) |
| CEA – Ambatale | average (range) | 3.2 (0.4 – 9.2) | 20.8 (10.0 – 50.0) | 0.26 (0.01 – 0.86) | 0.35 (0.02 – 1.45) | 0.03 (0.01 – 0.25) |
| NWSDB Ambatale | average (range) | 1.38 (0.05 – 15.6) | 3.6 (0.5 – 28.0) | 0.14 (0.0 – 0.6) | 0.18 (0.0 – 1.6) | - - |
| NARA New bridge | average (range) | 4.5 (2.3 – 6.5) | | 1.3 (0.25 – 2.26) | 2.2 (0.51 – 3.30) | 0.02 (0.01 – 0.03) |
| CEA – Victoria | average (range) | 3.06 (0.6 – 6.4) | 111 (7.5 – 359.0) | 0.22 (0.01 – 0.72) | 0.85 (0.02 – 3.5) | 0.02 (0.01 – 0.13) |
| NARA Victoria | average (range) | 8.1 (2.3 – 18.0) | | 1.45 (0.44 – 3.0) | 2.95 (0.6 – 6.0) | 0.08 (0.01 – 0.40) |

Source: Western River Basins Sector Project 1998

Table 7 Reported Water Quality Data for Attanagalu Oya at Raddolugama Intake (1998)

| | pH | BOD ₅ (mg/l) | NO ₃ -N (mg/l) | COD (mg/l) | T-PO ₄ (mg/l) | NO ₂ -N (mg/l) |
|---|--------------|----------------------------|------------------------------|----------------|-----------------------------|------------------------------|
| No. of Data | 108 | 31 | 48 | 100 | 46 | 47 |
| Average | 6.9 | 2.86 | 6.28 | 14.72 | 0.12 | 0.04 |
| Range | (5.6 – 10.3) | (0.25 – 14.5) | (2.64–10.12) | (1.49 – 113.1) | (0.03 – 0.58) | (0.0 – 0.04) |
| Standard – drinking with conventional treatment | 5 – 8.5 | 3 | none | none | none | none |
| Standard – aquatic life | 6 – 8.5 | none | none | none | 0.4 | none |
| Standard – Minimum requirement for all fresh waters | 5 – 8.5 | 4 max | 5 max | none | 0.7 max | none |

Source: Extracted from Western River Basins Study, 2000

Table 8 Sources of Industrial Pollution in the Greater Colombo Canal System

| Canal | Industrial Activity | Type of Wastewater discharged to canals | Remarks |
|------------------------------------|---|---|--|
| Dehiwala | Automobile Service Station | Treatment plant available treated effluent discharged to canal. | |
| | Textile processing | Wastewater comprising textile dyes discharged with no form of treatment | |
| Kirillapone | Automobile service station | Treated effluent | |
| Heen Ela | Milk processing industry | Direct discharge of untreated Industrial effluent | industry to be relocated |
| | Fruit and vegetable canning industry | Untreated wastewater discharges | |
| | Ice cream manufacturing plant | Untreated wastewater | |
| Mahawatta Heen ela connector canal | Automobile servicing | Untreated wastewater | No treatment plant. CEA awaiting approval from Attorney Generals department to proceed with legal action |
| | Washing plant | Untreated wastewater | |
| | Paint industry | Untreated wastewater | |
| | Automobile service station 1 | Wastewater (through a secondary drain) | |
| | Automobile service station 2 | Wastewater through a secondary drain | CEA awaiting approval from Attorney Generals department to proceed with legal action |
| | Automobile service station 3 | Wastewater through a secondary drain | CEA awaiting approval from Attorney Generals department to proceed with legal action |
| Kolonnawa | Piggery | Treated effluent | treated waste water is not conforming to CEA standards and EPL has been cancelled |
| | Tannery 1 | Wastewater | TP not available – to be shifted |
| | Tannery 2 | Wastewater | TP not available – to be shifted |
| | Tannery 3 | Wastewater | TP not available – to be shifted |
| | Concrete batching plant | Treated Wastewater through a minor canal | results of analysis carried out by CEA indicate that effluent standards are not been met |
| | Vehicle servicing station | Treated Wastewater through a minor canal | Oil trap available – Results of analysis carried out by CEA reveal the effluent discharge standards are been exceeded. |
| Kotte Canal & Diyawanna Oya | Automobile interior and exterior cleaning station | wastewater | Process of constructing a treatment plant |

| Canal | Industrial Activity | Type of Wastewater discharged to canals | Remarks |
|--------------------------|--|---|---|
| Serpentine Canal | Piggery | Direct discharge of wastewater | No treatment |
| | Slaughter house | Direct discharge of ww | No treatment |
| Dematagoda Canal | Printing industry | Direct discharge of ww | No treatment |
| | Petroleum corporation | | An oil interceptor was to be constructed by September 2000 |
| | Textile processing industry | No treatment available and wastewater directly discharged to canal | |
| | Repackaging of agrochemicals, blending of detergents and bitument based products | Not available. Direct discharge of wastewater to the canal. | Factory to be shifted to Sapugaskande |
| St Sebastian South Canal | Manufacture of nuts and bolts, PVC pipes and fittings and steel fabrication | No treatment direct discharge | Nut and bolt industry closed down |
| | Kollonawa Electricity Board | Oil mixed wastewaters discharged without any treatment | |
| | Kelanitissa power station | Oil mixed wastewater discharged without any treatment | |
| | Manufacturers of margarine, soap and cosmetics | Treatment plant available – treated wastewater discharged to canal | |
| | Manufacturers of soap, detergents and disinfectants | Wastewater discharge with no form of treatment | Proposed to shift to Horana |
| Main Drain | Sri Lanka Government railways motive power division | Oil interceptor is available – does not function properly and effluent discharges consist of oils | CEA has requested the authority to initiate corrective measures |
| | Tannery | No treatment available direct discharge to canal | To be relocated in Bataatta |

Source: Nippon Koei study, 2001

Table 9 Results of Water Quality Monitoring Programme of Canal System (1996 – 2000)

| | | Dematagoda Canal | St. Sebastian South Canal | Kotte North Canal | Torrington Canal | Wellawatta Canal | Dehiwala Canal | Lunawa Lake Outfall | Bolgoda Canal | Weras Ganga | Serpentine Canal | Proposed Ambient Water Quality Standards by CEA | |
|-----------------|--------------------------------|---------------------------------|---------------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---|---------------------|
| | | | | | | | | | | | | Fish & Aquatic Life | Minimum Requirement |
| NH ₃ | mg/l average (range) | 7.3 (0-24) | 1.5 (0-12.0) | 1.3 (0-12.4) | 5.3 (0.0-13.9) | 2.7 (0.2-10.6) | 2.6 (0.0-12.2) | 3.6 (0.1-12.0) | 2.3 (0.1-20.7) | 1.5 (0.0-9.6) | 9.8 (1.0-28.3) | - | - |
| NO ₃ | mg/l average (range) | 0.6 (0-10) | 1.0 (0-6.0) | 0.8 (0-29.0) | 0.3 (0.0-4.8) | 0.3 (0.0-4.8) | 0.5 (0.0-3.8) | 0.3 (0.0-4.3) | 3.6 (0.0-194.0) | 0.4 (0.0-5.6) | 0.7 (0.0-8.8) | - | 5 max |
| Temp | ^o C average (range) | 29.4 (26.5-34.5) | 29 (26.6-32) | 29.3 (0.1-34.0) | 29.6 (26.7-34.0) | 30.0 (26.8-34.0) | 30.2 (26.9-36.0) | 30.6 (20.0-35.0) | 30.8 (27.1-35.3) | 29.1 (24.2-35.5) | 28.7 (21.2-32.0) | - | - |
| PO ₄ | mg/l average (range) | 1.2 (0.1-3.0) | 0.3 (0.0-2.0) | 0.3 (0.0-10.0) | 1.2 (0.0-2.5) | 0.4 (0.0-1.5) | 0.5 (0.0-2.5) | 0.8 (0.0-2.5) | 0.3 (0.0-1.0) | 0.5 (0-2.5) | 2.4 (0.0-6.0) | 0.4max | 0.7 |
| Turbidity | NTU average (range) | 30 (3.2-107) | 9.3 (0.2-57) | 9.2 (0.2-96.0) | 38.4 (0.2-580) | 16.3 (0.2-103.0) | 31.1 (0.2-216) | 13.2 (0.3-88.0) | 15.4 (0.3-40.4) | 12.0 (0.4-157.0) | 36.7 (3.5-166.0) | | |
| pH | | 6.7 (5.9-7.7) | 6.6 (5.1-7.6) | 6.6 (0.2-9.0) | 6.7 (5.0-7.7) | 6.8 (6.0-7.8) | 7.3 (5.4-9.7) | 7.4 (5.1-9.0) | 7.6 (6.4-9.4) | 6.9 (5.9-8.3) | 6.7 (5.4-7.8) | 6-8.5 | 5.0-8.5 |
| Conductivity | mS/cm average (range) | 0.5 (0.1-5.0) | 0.3 (0.0-0.4) | 0.7 (0.1-15.4) | 0.3 (0.1-2.9) | 3.6 (0.2-41.0) | 1.8 (0.2-10.0) | 5.9 (0.4-41.8) | 0.9 (0.3-8.3) | 1.0 (0.1-13.8) | 0.5 (0.2-2.9) | | |
| DO | mg/l average (range) | 0.9 (0.1-4.0) | 2.4 (0.2-5.5) | 4.4 (0.04-9.3) | 1.1 (0.1-3.2) | 2.3 (0.2-13.3) | * | 7 (0.2-34.1) | 5.9 (0.6-21.8) | 1.5 (0.1-11.1) | 1.0 (0.1-2.6) | 6 mean 4 min. daily | 3 |
| BOD | mg/l average (range) | 51.8 (5.0-200) | 17.7 (1.0-80) | 14.6 (1.0-80.0) | 34.5 (5.0-105.0) | 26.3 (50-135.) | 35.7 (5.0-250) | 35.6 (5.0-170.0) | 21.4 (5.0-80.0) | 32.4 (5.0-120.0) | 92.0 (10.0-420) | - | 4max |
| COD | mg/l average (range) | 103.4 (10-440) | 28.8 (7-120.0) | 48.5 (0.0-1175) | 68.5 (10.0-256) | 79.0 (4-395) | 93.8 (4.0-400.0) | 139.5 (10.0-775) | 50.3 (9.0-347.0) | 75.3 (4.0-620.0) | 155.8 (20-920) | | |

Note- * DO values reported in Volume 2 of the Nippon Koei Final Report appear to be erroneous with average DO concentrations exceeding 60 mg/l

Table 10 Comparison of Water Quality Before and After Canal Rehabilitation

| | | Dematagoda Canal | | St. Sebastian South | | Wellawatta Canal | | Dehiwala Canal | | Bolgoda Canal | |
|-----------------|-------|------------------|---------------------|---------------------|--------------------|------------------|-----------------------|----------------|---------------------|---------------|----------------------|
| | | 1991 | 1996 - 2000 | 1991 | 1996 - 2000 | 1991 | 1996 - 2000 | 1991 | 1996 - 2000 | 1991 | 1996 - 2000 |
| NH ₃ | mg/l | 4.4 | 7.3 (0 - 24) | 8.8 | 1.5 (0 - 12.0) | 1.6 | 2.7 (0.2 - 10.6) | 5.6 | 2.6 (0.0 - 12.2) | 5.6 | 2.3 (0.1 - 20.7) |
| PO ₄ | mg/l | | 1.2 (0.1 - 3.0) | | 0.3 (0.0 - 2.0) | | 0.4 (0.0 - 1.5) | | 0.5 (0.0 - 2.5) | | 0.3 (0.0 - 1.0) |
| Turbidity | NTU | 20 | 30 (3.2 - 107.0) | 40 | 9.3 (0.2 - 57) | 11 | 16.3 (0.2 - 103.0) | 14 | 31.1 (0.2 - 216) | 18 | 15.4 (0.3 - 40.4) |
| pH | | 7.2 | 6.7 (5.9 - 7.7) | 7.2 | 6.6 (5.1 - 7.6) | 6.5 | 6.8 (6.0 - 7.8) | 7.2 | 7.3 (5.4 - 9.7) | 6.7 | 7.6 (6.4 - 9.4) |
| conductivity | mS/cm | | 0.5 (0.1 - 5.0) | | 0.3 (0.0 - 0.4) | | 3.6 (0.2 - 41.0) | | 1.8 (0.2 - 10.0) | | 0.9 (0.3 - 8.3) |
| DO | mg/l | 0.2 | 0.9 (0.1 - 4.0) | 0 | 2.4 (0.2 - 5.5) | 0.7 | 2.3 (0.2 - 13.3) | 2.3 | | 2.7 | 5.9 (0.6 - 21.8) |
| BOD | mg/l | 24 | 51.8 (5.0 - 200) | 164 | 17.7 (1.0 - 80) | 40 | 26.3 (50 - 135.) | 60 | 35.7 (5.0 - 250) | 40 | 21.4 (5.0 - 80.0) |

Table 11 Results of Water Quality Monitoring Programme of Canal System (1999 – 2000)

| | | St Sebastian North | Dematagoda Canal – Kollonawa Bridge | Mahawatta Canal | Kirilapona Canal | Lunawa Lake station 5 | Lunawa Lake station 6 | Lunawa Lake station 7 | Proposed Ambient Water Quality Standards by CEA | |
|-----------------|--------------------------|-------------------------------------|---|------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--|--------------------|
| | | | | | | | | | Fish & Aquatic Life | Minimum Quality |
| NH ₃ | mg/l average (range) | 6.24 <i>(1.2 – 9.6)</i> | 5.42 <i>(2.4 – 9.6)</i> | 5.9 <i>(2.4 – 12)</i> | 1.39 <i>(0.96 – 2.4)</i> | 6.7 <i>(4.8 – 8.0)</i> | 3.2 <i>(2.0 – 4.8)</i> | 2.4 <i>(1.2 – 4.8)</i> | - | - |
| NO ₃ | mg/l average (range) | 0.19 <i>(0 – 0.76)</i> | 0.15 <i>(0.003 – 0.76)</i> | 0.07 <i>(0.0 – 0.24)</i> | 0.12 <i>(0.045 – 0.20)</i> | 0.09 <i>(0.01 – 0.20)</i> | 0.21 <i>(0.00 – 0.80)</i> | 0.32 <i>(0.02 – 0.84)</i> | - | 5 |
| Temp | °C average (range) | 28.9 <i>(27.4 – 31.1)</i> | 29.0 <i>(28 – 31)</i> | 28.7 <i>(26.8 – 33.0)</i> | 28.9 <i>(26.8 – 32.4)</i> | 29.8 <i>(28.0 – 32.9)</i> | 32.5 <i>(28.5 – 35.5)</i> | 32.4 <i>(28.3 – 35.0)</i> | - | - |
| PO ₄ | mg/l average (range) | 1.425 <i>(0.25 – 2.5)</i> | 0.78 <i>(0.0 – 2.0)</i> | 1.00 <i>(0.00 – 2.0)</i> | 0.2 <i>(0.00 – 0.5)</i> | 1.75 <i>(1.0 – 2.5)</i> | 0.85 <i>(0.25 – 2.5)</i> | 0.83 <i>(0.0 – 3.0)</i> | 0.4 | 0.7 |
| Turbidity | NTU average (range) | 23.6 <i>(6.6 – 52.3)</i> | 21.3 <i>(7.1 – 49.0)</i> | 24.3 <i>(4.8 – 80.1)</i> | 11.5 <i>(4.2 – 35.5)</i> | 34.9 <i>(6.05 – 91.4)</i> | 22.3 <i>(0.37 – 80.8)</i> | 16.8 <i>(4.4 – 27.9)</i> | | |
| pH | | 6.6 <i>(5.3 – 7.2)</i> | 6.6 <i>(5.5 – 7.8)</i> | 6.7 <i>(6.2 – 7.6)</i> | 6.5 <i>(5.6 – 7.8)</i> | 6.6 <i>(5.1 – 7.2)</i> | 7.6 <i>(6.4 – 8.9)</i> | 7.8 <i>(6.2 – 9.5)</i> | 6 – 8.5 | 5.0-8.5 |
| conductivity | mS/cm average (range) | 0.46 <i>(0.26 – 1.00)</i> | 0.42 <i>(0.23 – 0.99)</i> | 0.33 <i>(0.2 – 1.1)</i> | 0.32 <i>(0.13 – 1.64)</i> | 0.76 <i>(0.17 – 2.3)</i> | 3.2 <i>(1.4 – 7.2)</i> | 2.9 <i>(0.96 – 5.9)</i> | | |
| DO | mg/l average (range) | 0.67 <i>(0.01 – 2.7)</i> | 0.69 <i>(0.12 – 2.7)</i> | 2.3 <i>(0.16 – 13.1)</i> | 2.9 <i>(0.8 – 10.6)</i> | 0.48 <i>(0.17 – 1.75)</i> | 5.4 <i>(0.29 – 15.0)</i> | 6.8 <i>(0.35 – 19.9)</i> | 6 mean 4 min. daily | 3 |
| BOD | mg/l average (range) | 52.4 <i>(28 – 115)</i> | 25.9 <i>(14 – 50)</i> | 27.4 <i>(19.0 – 50.0)</i> | 10.9 <i>(7.0 – 15.0)</i> | 24.9 <i>(14.0 – 44.0)</i> | 38.2 <i>(20.0 – 63.0)</i> | 50.3 <i>(23.0 – 76.0)</i> | - | 4 |
| COD | mg/l average (range) | 122.2 <i>(92 – 200)</i> | 81.78 <i>(53 – 120)</i> | 68.9 <i>(43 – 98)</i> | 30.4 <i>(15.0 – 71.0)</i> | 65.9 <i>(30.0 – 160.0)</i> | 115.6 <i>(38.0 – 230.0)</i> | 133.2 <i>(37.0 – 300.0)</i> | | |

Table 12 Comparison of Different Studies Carried Out on the Water Quality of the Beira Lake

| Parameter | 1970 (Costa & De Silva 1978) 7 sampling stations | 1985 NARA (1 sampling station) | 1992 CEA (7 sampling stations) |
|---------------------------|--|--------------------------------------|--------------------------------------|
| DO (mg/L) | 6.73 | 12 | 4.48 |
| BOD (mg/L) | - | 37 | 70 |
| COD (mg/L) | - | 171 | 97 |
| Orthophosphates as 'P' | - | 0.016 | 2.388 |
| Ammonia (mg/L) | 0.341 | 1.316 | - |
| Nitrates (mg/L) | 0.71 | 0.701 | 0.287 |
| Turbidity (NTU) | - | 81 | 198 |
| pH | 8.4 | 8.16 | 9.12 |

Source: Beira Lake Restoration study, UDA/ROCHE, 1993

Table 13 Results of Beira Lake Water Quality Survey Conducted in 1993

| <i>Parameter</i> | <i>East Lake Mean (range) n = 20</i> | <i>Galle Face Lake Mean (range) n = 5</i> | <i>West Lake Mean (range) n = 10</i> | <i>South West Lake Mean (range) n = 10</i> |
|--|--|---|--|--|
| OPTICAL | | | | |
| Transparency (cm) | 13 (9 – 18) | 11 (8 – 16) | 11 (3 – 17) | 12 (17 – 25) |
| Turbidity (NTU) | 58 (46 – 73) | 47 (23 – 68) | 54 (27 – 85) | 66 (25 – 133) |
| Suspended Solids (mg/l) | 80 (57 – 120) | 69 (17 – 105) | 100 (27 – 215) | 112 (27 – 200) |
| Total Volatile solids (mg/l) | 159 (78 – 238) | 156 (72 – 292) | 154 (72 – 306) | 152 (96 – 228) |
| PHYSICO – CHEMICAL | | | | |
| Water Temperature (°C) | 32 (30 – 34) | 31 (30 – 32) | 31 (30 – 32) | 31 (31 – 32) |
| Dissolved Oxygen (mg/l) | 7.63 (2.2 – 14.2) | 5.63 (1 – 9.3) | 5.78 (0 – 11.4) | 6.53 (1.55 – 10.9) |
| BOD (mg O ₂ /l) | 18 (8 – 40) | 21 (16 – 30) | 29 (15 – 55) | 20 (10 – 26) |
| COD (mg O ₂ /l) | 114 (25 – 214) | 68 (40 – 89) | 100 (25 – 180) | 108 (25 – 173) |
| pH | 9.03 (8.3 – 9.8) | 8.24 (7.4 – 9.2) | 7.94 (7.3 – 8.8) | 8.47 (7.4 – 9.3) |
| Total Hardness mg CaCO ₃ /l | 98 (74 – 112) | 101 (89 – 113) | 83 (71 – 112) | 75 (56 – 102) |
| NUTRIENTS | | | | |
| Total Phosphorous as P (mg/l) | 1.13 (0.42 – 2.18) | 1.48 (1.10 – 1.92) | 1.91 (1.20 – 2.57) | 1.95 (1.41 – 2.52) |
| Orthophosphate as P (mg/l) | 0.104 (0.029 – 0.44) | 0.182 (0.035 – 0.590) | 0.275 (0.050 – 0.75) | 0.321 (0.103 – 0.700) |
| TKN as N (mg/l) | 12.08 (6.44 – 24.0) | 12.49 (8.00 – 16.00) | 14.83 (7 – 28.0) | 16.61 (10.0 – 27.0) |
| Nitrates as N (mg/l) | 0.144 (0.004 – 1.04) | 0.111 (0.003 – 0.490) | 0.099 (0.003 – 0.550) | 0.132 (0.008 – 0.95) |
| Nitrites as N (mg/l) | 0.036 (0.001 – 0.224) | 0.089 (0.001 – 0.410) | 0.096 (0.001 – 0.460) | 0.245 (0.001 – 1.240) |
| Free Ammonia (mg/l) | 0.622 (0.010 – 2.31) | 2.13 (0.020 – 7.40) | 3.218 (0.030 – 7.4) | 2.596 (0.00 – 12.0) |
| METALS & IONS | | | | |
| Chromium (mg/l) | 0.004 (0.002 – 0.009) | 0.009 | 0.0065 (0.004 – 0.009) | 0.009 (0.002 – 0.015) |
| Cu (mg/l) | 0.072 (0.057 – 0.103) | 0.163 | 0.059 (0.051 – 0.067) | 0.066 (0.045 – 0.086) |
| Iron as Fe (mg/l) | 0.68 (0.27 – 1.20) | 0.54 (0.15 – 1.06) | 0.99 (0.48 – 2.32) | 0.87 (0.36 – 1.50) |
| Pb (mg/l) | 0.113 (0.042 – 0.273) | 0.131 | 0.099 (0.058 – 0.140) | 0.081 (0.021 – 0.14) |
| Manganese (mg/l) | 0.709 (0.62 – 0.872) | 0.772 | 0.766 (0.724 – 0.808) | 0.832 (0.8 – 0.864) |

| <i>Parameter</i> | <i>East Lake Mean (range) n = 20</i> | <i>Galle Face Lake Mean (range) n = 5</i> | <i>West Lake Mean (range) n = 10</i> | <i>South West Lake Mean (range) n = 10</i> |
|----------------------|--|---|--|--|
| Zn (mg/l) | 0.154 (0.018 – 0.334) | 0.404 | 0.215 (0.067 – 0.364) | 0.141 (0.135 – 0.147) |
| Conductivity (µs/cm) | 571 (420 – 690) | 590 (480 – 750) | 495 (295 – 740) | 401 (260 – 580) |
| Sulphate (mg/l) | 8.53 (6 – 10) | 6.9 (3 – 12) | 7.5 (5 – 11) | 7.56 (4 – 22.5) |
| BIOLOGICAL | | | | |
| Fecal (n/100 ml) | 36,850 (2000 – 190,000) | 80,000 (10,000 – 340,000) | 166,500 (5000 – 740,000) | 178,200 (10,000 – 580,000) |
| Chlorophyll a (mg/l) | 0.281 (0.244 – 0.342) | 0.327 | 0.281 (0.280 – 0.282) | 0.269 (0.220 – 0.317) |

Table 14 Comparison of Water Quality in Three Lakes within the Study Area

| | Beira CEA 3/91 – 1/93 n = 7 stations | Parliament Lake NBRO 1/9/93 n = 1 station | Bolgoda Lake NBRO 19 – 21/9/93 n = 1 station |
|----------------------------|--|---|--|
| Total Phosphorous (mg/l) | 1.52 (0.42 – 2.57) | < 0.001 | < 0.001 |
| Total N (mg/l) | 13.74 (6.44 – 28.0) | 4 | 5 |
| Chlorophyll a (mg/l) | 0.283 (0.220 – 0.342) | < 0.001 | < 0.001 |
| Suspended Solids (mg/l) | 90 (17 – 215) | 2 | 33 |
| Turbidity (NTU) | 208 (40 – 1400) | 3 | 3 |
| BOD (mg/l) | 46 (5 – 350) | 1 | 5 |
| Transparency (cm) | 12 (3 - 21) | 120 | 85 |
| pH | 7.94 (2.85 – 10.5) | 6.6 | 7.3 |
| Ammoniacal Nitrogen (mg/l) | 1.74 (0.0 – 12.0) | - | - |
| Orthophosphate (mg/l) | 2.071 (0.260 – 6.260) | - | - |

Source: Beira Lake Restoration Study, ROCHE/UDA 1993

Table 15 Water Quality Analysis of Bellanwila-Attidiya Marsh (analysis by CEA on 10th February 1992)

| Parameter | Sampling point | | | | |
|---------------------------------------|----------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| Time (AM) | 11.15 | 11.20 | 11.30 | 11.55 | 12.20 |
| Temperature °C | 30 | 30 | 30 | 29 | 32 |
| PH | 7.8 | 8.0 | 7.5 | 6.9 | 7.3 |
| EC mms/cm | 0.46 | 1.90 | 0.50 | 0.51 | 0.52 |
| Turbidity NTU | 40 | 180 | 50 | 40 | 40 |
| Dissolved Oxygen mg/l | 5.1 | 1.1 | 3.4 | 3.6 | 3.9 |
| Salinity ppm | 190 | 880 | 240 | 250 | 390 |
| Chlorides (Cl ⁻) mg/l | 95 | 70 | 80 | 80 | 135 |
| Nitrate No ₃ -N mg/l | 1.57 | 5.40 | 1.90 | 2.00 | 1.65 |
| Nitrite No ₂ - N mg/l | 0,1 | 0.1 | 0.1 | 0.05 | 0.05 |
| Iron mg/l | 0.86 | 2.14 | 1.12 | 2.00 | 3.26 |
| Chromium mg/l | ND | ND | ND | ND | ND |
| Copper mg/l | ND | ND | ND | ND | ND |
| Sulphate mg/l | 37.5 | 316 | 39.5 | 37.5 | 16.1 |
| Magnesium mg/l | 4.5 | 2.5 | 4.0 | 3.5 | 7.0 |
| Calcium mg/l | 31 | 23.7 | 32.5 | 27 | 14 |
| TDS mg/l | 306 | 1267 | 330 | 340 | 347 |
| COD mg/l | 60 | 510 | 72 | 52 | 136 |
| BOD mg/l | 35 | 200 | 70 | 10 | 40 |
| Faecal Coliform (Escherichia coli) | P | P | P | P | P |
| Total coliform count mpn | >2400 | >2400 | >2400 | >2400 | >2400 |

Sampling points

- 1 in the upstream section of Bolgoda Canal within the marsh
- 2 in Thel-Ela before joining the Bolgoda Canal
- 3 in Bolgoda Canal just downstream of Thel-Ela confluence
- 4 in Bolgoda Canal downstream of Katu-Ela confluence
- 5 in the marsh water
- ND - not detectable
- P - positive

Table 16a Water Quality Analysis of Bellanwila-Attidiya Marsh
(analysis by CEA on 12th February 1992) in the same sampling points given in the table 15

| Parameter | Sampling point | | | | |
|---------------------------------------|----------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| Time (AM) | 12.55 | 12.25 | 12.15 | 11.55 | 12.45 |
| Temperature °C | 31 | 31 | 30 | 29 | 32 |
| pH | 7.6 | 8.1 | 7.6 | 7.2 | 7.4 |
| EC mms/cm | 0.55 | 2.20 | 0.56 | 0.49 | 0.56 |
| Turbidity NTU | 120 | 340 | 50 | 80 | 90 |
| Dissolved Oxygen mg/l | 4.4 | 1.0 | 3.0 | 3.3 | 4.2 |
| Salinity ppm | 200 | 980 | 220 | 250 | 370 |
| Chlorides (Cl ⁻) mg/l | 92.5 | 145 | 78 | 73 | 132.5 |
| Nitrate NO ₃ -N mg/l | 1.60 | 5.60 | 2.00 | 2.00 | 1.7 |
| Nitrite NO ₂ - N mg/l | 0.1 | 0.05 | 0.1 | 0.05 | 0.05 |
| Iron mg/l | 1.3 | 3.32 | 1.66 | 1.74 | 3.36 |
| Chromium mg/l | ND | 0.43 | ND | ND | ND |
| Copper mg/l | ND | ND | ND | ND | ND |
| Sulphate mg/l | 29.4 | 324 | 48.2 | 37.5 | 21.4 |
| Magnesium mg/l | 4.4 | 2.00 | 4.40 | 4.00 | 6.80 |
| Calcium mg/l | 34.40 | 28.00 | 33.60 | 35.60 | 14.60 |
| TDS mg/l | 370 | 1475 | 373 | 330 | 400 |
| COD mg/l | 114 | 740 | 156 | 42 | 132 |
| BOD mg/l | 85 | 200 | 130 | 30 | 90 |
| Faecal Coliform (Escherichia coli) | P | P | P | P | P |
| Total coliform count mpn | >2400 | >2400 | >2400 | >2400 | >2400 |

Table 16b Water Quality Analysis: Bellanwila-Attidiya Marsh
(heavy metals, analysis by CISIR Laboratories on 10th February 1992 in the same sampling point as above)

| Parameters | Sample point | | | | |
|-------------------------------|--------------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 |
| Cadmium (as Cd) mg/l | 0.02 | 0.05 | 0.04 | 0.06 | 0.06 |
| Lead* (as Pb) mg/l | 0.02 | 0.08 | ND | ND | 0.05 |
| Selenium* (as Se) mg/l | ND | ND | ND | ND | ND |
| Arsenic* (as As) | ND | ND | ND | ND | ND |
| Sodium (as Na) mg/l | 48 | 181 | 52 | 61 | 69 |
| Potassium (as K) mg/l | 15 | 272 | 24 | 29 | 14 |
| Kjeldhal Nitrogen (as N) mg/l | 2.9 | 4.6 | 2.3 | 2.6 | 1.7 |

ND – Not Detectable; * - Sensitivity of test 0.01 mg/l