LIST OF FIGURES

| Sr. No. | Figure No. | Title | Page No. |
|------------|---------------|--|-------------|
| 1 | 1.1 | Location of Study Area | 6 |
| 2 | 1.2 | Phaltan Tahsil: Revenue Circles Map | 7 |
| 3 | 2.1 | Phaltan Tahsil: Relief | 17 |
| 4 | 2.2 | Phaltan Tahsil: 3D View Showing The Relief & Drainage Pattern (Use GIS Software) | 18 |
| 6 | 2.3 | Phaltan Tahsil : Drainage Pattern | 20 |
| 7 | 2.4 | Phaltan Tahsil: Soil Map | 22 |
| 8 | 2.5 | Phaltan: Maximum & Minimum Temperature | 23 |
| | | (2005) | |
| 9 | 2.6 | Phaltan Tahsil: Average annual rainfall | 25 |
| 10 | 2.7 | Padegaon & Phaltan Rainfall Station: Annual rainfall variation from normal (1976 – 2005) | 28 |
| 11 | 2.8 | Padegaon & Phaltan Rainfall Station: rainy days | 28 |
| | | (1986 – 2005) | |
| 12 | 2.9 | Phaltan Tahsil: Geomorphology | 31 |
| 13 | 2.10 | Phaltan Tahsil: Decadal growth of population (1961 – 2001) | 39 |
| 14 | 3.1 | Phaltan Tahsil: Villages adopting roof water | 53 |
| | | harvesting system (2005). | |
| 15 | 3.2 | Phaltan Tahsil: Distribution of farm ponds. | 58 |
| 16 | 3.3 | Phaltan Tahsil: Rainwater collected in farm ponds | 60 |
| | | in each rainy season (1995 to 2000) | |

| 17 | 3.4 | Phaltan Tahsil: Rainwater collected in farm ponds | 60 |
|----|------|---|-----|
| | , | in each rainy season (2001 to 2005) | |
| 18 | 3.5 | Water storage capacity in farm pond. | 60 |
| 19 | 3.6 | Phaltan Tahsil: Decadal growth of check dams | 63 |
| | | (1975to 2005) | |
| 20 | 3.7 | Phaltan Tahsil: Rainwater storage capacity in | 63 |
| : | | check dams (1975 to 2005). | |
| 21 | 3.8 | Irrigated area influenced by check dams (in hect.) | 63 |
| 22 | 3.9 | Rainwater storage capacity in various percolation | 66 |
| | | Tanks in study region | |
| 23 | 3.10 | Phaltan Tahsil: Decadal Growth of Dug wells & | 66 |
| | | bore wells (1975 to 2005) | |
| 24 | 3.11 | Phaltan Tahsil: Artificially recharge of Dug wells | 68 |
| | | & bore wells (1975 to 2005) | |
| 25 | 4.1 | Location of Dhaval Percolation Tank. | 81 |
| 26 | 4.2 | Dhaval percolation tank command area: Isolines, | 83 |
| | | showing water level before construction of tank | |
| | | (1981) | |
| 27 | 4.3 | Dhaval percolation tank command area: Isolines, | 84 |
| | | showing water level after construction of tank | |
| | | (2005) | |
| 28 | 4.4 | Dhaval: Size of holdings | 88 |
| 29 | 4.5 | Dhaval: Area irrigated (in hect.) | 88 |
| 30 | 5.1 | Phaltan Tahsil: Priority zones for the construction of water harvesting structures. | 96 |
| 31 | 5.2 | Phaltan tahsil: Proposed water harvesting schemes | 105 |

| 31 | 5.3 | Phaltan city: Location of Sanjivraje nagar | 116 |
|----|-----|---|-----|
| 32 | 5.4 | Phaltan tahsil: Selected villages for measuring the roof top rainwater harvesting potential | 121 |

LIST OF PHOTO PLATES

| Sr. No. | Photo Plate No. | Title | Page No. |
|------------|-----------------------|--|-------------|
| 1 | 3.1 | Roof top rainwater harvesting at Manewadi village | 72 |
| 2 | 3.2 | Farm Pond at Kapshi village | 72 |
| 3 | 3.3 | Cement check dam across the Karanj odha near | 73 |
| | | Malewadi | |
| 4 | 3.4 | Percolation Tank near Dudhebavi village | 73 |
| 5 | 3.5 | Contour bunds near Bibi village | 74 |
| 6 | 3.6 | Nall bunds (Stone bunds) near Manewadi village | 74 |
| 7 | 3.7 | Dug well Recharge by surface runoff at Adarki village | 75 |
| 8 | 3.8 | New percolation tanks constructed at foot hills of Tathawda ghat | 75 |
| 9 | 4.1 | Location of Dhaval percolation tank | 81 |