

APPENDIX IV

Estimation Procedure

The estimated total value of a variable in  $h^{th}$  district for I.S.I.C. three digit category  $s$  is given by,

$$\hat{Y}_{hs} = \sum_{i=1}^j Y_{hsi} \left( \begin{matrix} N_{hsi} \\ n_{hsi} \end{matrix} \right)$$

The estimated total value at  $h^{th}$  district is given by

$$\hat{Y}_h = \sum_{s=1}^{35} \hat{Y}_{hs}$$

The estimated total value at all island levels is given by,

$$\hat{Y} = \sum_{h=1}^{24} \hat{Y}_h$$

Where

- $h$  = district
- $s$  = I.S.I.C. three digit level
- $i$  = A.G.A./M.C/U.C
- $j$  = Total number of A.G.A./M.C/U.C in  $h^{th}$  district
- $N_{hsi}$  = No. of establishment in  $h^{th}$  district in  $i^{th}$  A.G.A./M.C/U.C and  $s^{th}$  I.S.I.C. three digit category level.
- $n_{hsi}$  = Sample number of establishment in  $h^{th}$  district in  $i^{th}$  A.G.A./M.C/U.C and  $s^{th}$  I.S.I.C. three digit category level.
- $Y_{hsi}$  = The observed value for  $y$  variable in  $h^{th}$  district in  $i^{th}$  A.G.A./M.C/U.C and  $s^{th}$  I.S.I.C. three digit category level.