

# ***Sri Lanka***

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## ***1. Introduction***

The main purpose of this document is to briefly describe the process of incorporating the new Sri Lankan input-output (I-O) data base into GTAP version 7. The first Sri Lankan I-O data base was incorporated into the GTAP version 4 Data Base in the late 1990s (See Bandara, 1998). The base year of the I-O table was 1989. This table was not replaced by a new table in versions 5 and 6 GTAP Data Base. Therefore, there was an urgent need to update the Sri Lankan I-O table in GTAP. In order to meet this need, we decided to incorporate a new Sri Lankan I-O table into this new version.

## ***2. The Original Input-Output Table***

The Sri Lankan I-O table for GTAP version 7 is based on Input-Output Tables for Sri Lanka – 2000 (Amarasinghe and Bandara, 2005). As noted by Bandara and Kelegama (2008), the Department of Census and Statistics (DCS) does not publish I-O tables or Social Accounting Matrices (SAMs) at a regular interval. The latest I-O table (2000) was compiled under a project funded by the Institute of Policy Studies (IPS). This new I-O data base contains 46 sectors and separate domestic absorption and import matrices. The main data sources for this data base have been different publications of (DCS) including the National Accounts. The value added of different industries has been derived from the detailed National Accounts. Similar to many other I-O data bases in GTAP, we had to undertake a mapping procedure to convert Sri Lankan I-O table into the GTAP industry classification.

Reference information for the source table: Input Output table for Sri Lanka, 2000: Macroeconomic Policy Series No.16 of IPS Research Studies, 2005. Copyright: Institute of Policy Studies, Sri Lanka.

*A description of the source table:*

- The reference year for the source table: 2000
- The units of the source table. Sri Lankan Rupees (Million)
- Whether the source data was: Commodity by commodity
- The valuation of the source table. That is, whether the source data was in basic or purchaser prices. Producers' Prices

### 3. Mapping Procedure

| Sector number in the new I-O table | GTAP sectors covered by the new sector (abbreviation) | GTAP sectors covered by the new sector (number) | Sector number in the original I-O table |
|------------------------------------|-------------------------------------------------------|-------------------------------------------------|-----------------------------------------|
| 1                                  | pdr                                                   | 1                                               | 6                                       |
| 2                                  | wht                                                   | 2                                               | 49                                      |
| 3                                  | gro,v_f,osd                                           | 3,4,5                                           | 7,8,9                                   |
| 4                                  | c_b,ocr                                               | 6,8                                             | 1,2,3,4,5,10,11,12,13,14,16             |
| 5                                  | pfb                                                   | 7                                               | 50                                      |
| 6                                  | ctl,oap,rnk                                           | 9,10,11                                         | 15                                      |
| 7                                  | wol                                                   | 12                                              | 51                                      |
| 8                                  | frs                                                   | 13                                              | 17,18                                   |
| 9                                  | fsh                                                   | 14                                              | 19                                      |
| 10                                 | coa                                                   | 15                                              | 52                                      |
| 11                                 | oil                                                   | 16                                              | 53                                      |
| 12                                 | gas                                                   | 17                                              | 54                                      |
| 13                                 | omn                                                   | 18                                              | 20                                      |
| 14                                 | cmt,omt,vol,mil,sgr,ofd,b_t                           | 19,20,21,22,24,25,26                            | 21,23,25,26                             |
| 15                                 | pcr                                                   | 23                                              | 24                                      |
| 16                                 | tex,lea                                               | 27,29                                           | 27                                      |
| 17                                 | wap                                                   | 28                                              | 28                                      |
| 18                                 | lum                                                   | 30                                              | 29                                      |
| 19                                 | ppp                                                   | 31                                              | 30                                      |
| 20                                 | p_c                                                   | 32                                              | 32                                      |
| 21                                 | crp                                                   | 33                                              | 22,31,33                                |
| 22                                 | nmm                                                   | 34                                              | 34                                      |
| 23                                 | i_s,nfm,fmp,omf                                       | 35,36,37,42                                     | 35,36                                   |
| 24                                 | mvh,otn,ele,ome                                       | 38,39,40,41                                     | 37                                      |
| 25                                 | ely,gdt,wtr                                           | 43,44,45                                        | 38                                      |
| 26                                 | cns                                                   | 46                                              | 39                                      |
| 27                                 | trd                                                   | 47                                              | 40                                      |
| 28                                 | otp,wtp,atp                                           | 48,49,50                                        | 43                                      |
| 29                                 | cmn                                                   | 51                                              | 44                                      |
| 30                                 | ofi,isr                                               | 52,53                                           | 45                                      |
| 31                                 | obs,ros                                               | 54,55                                           | 41,42,48                                |
| 32                                 | osg                                                   | 56                                              | 47                                      |
| 33                                 | dwe                                                   | 57                                              | 46                                      |

## **4. *Adjustments Made to the Original Sri Lanka I-O Table***

I-O table:

The columns 9-14 (starting with highland crops up to Misc Agricultural Products) were moved down by one row

The columns 33-40 (starting with Plastic and Rubber products up to Wholesale and Retail trade) were moved up by one row.

Trade table:

Changes were made to the cells.

(13,14) was moved to (14,14)

(13,15) was moved to (15,15)

(22,23) was moved to (23,23)

(8,25) was moved to (25,25)

The sum of intermediate consumption, private consumption, government consumption and fixed capital formation (investment) should be equal to total imports. However, the total imports reported in the original I-O table are slightly different from what is given by the above calculation. The calculated values are reported in the attached sheet.

For both tables, 6 new non-producing sectors were added.

## ***References***

Amarasinghe, D. and Bandara, J.S. (2005), “Input Output Tables for Sri Lanka – 2000’, Research Studies: Macroeconomic Policy Series No. 16, Institute Policy Studies, Colombo.

Bandara, J.S. (1998), “Single region Input-Output tables: 14.11 - Sri Lanka” in Chapter 14, *Global Trade, Assistance, and Protection: The GTAP 4 Database*, Ed., MacDougall, R.A., Elbehri, A. and Truong, T.P., Center for Global Trade Analysis, Purdue University, IN, USA.

Bandara, J.S. and Kelegama, S. (2008) “Compiling Input-Output (I-O) tables and Social Accounting Matrices (SAMs) for Sri Lanka: Review of the Progress, Problems and the Challenge”, in Senanayake, S.M.P., Wimalaratana, W. and de Silva, A., *Development Perspectives – Growth and Equity in Sri Lanka*, Department of Economics, University of Colombo, Colombo.

## ***Annex***

Sector numbers and their names in the original Sri Lanka I-O table.

| <b>SL_IO</b> | <b>SL Sector</b>                        |
|--------------|-----------------------------------------|
| No.          | Description                             |
| 1            | Tea Growing-High Elevation              |
| 2            | Tea Growing- Medium Elevation           |
| 3            | Tea Growing -Low Elevation              |
| 4            | Rubber Growing                          |
| 5            | Coconut and Toddy                       |
| 6            | Paddy                                   |
| 7            | Vegetables                              |
| 8            | Fruits                                  |
| 9            | Highland Crops                          |
| 10           | Potatoes                                |
| 11           | Minor Export Crops                      |
| 12           | Tobacco                                 |
| 13           | Betel and Arecanuts                     |
| 14           | Miscellaneous Agriculture Products      |
| 15           | Livestock                               |
| 16           | Plantation Development                  |
| 17           | Firewood                                |
| 18           | Forestry                                |
| 19           | Fisheries                               |
| 20           | Mining and Quarrying                    |
| 21           | Tea Processing                          |
| 22           | Rubber Processing                       |
| 23           | Coconut Processing                      |
| 24           | Rice Milling                            |
| 25           | Flour Milling                           |
| 26           | Food, Beverages and Other               |
| 27           | Textiles, Footwear and Leather Products |
| 28           | Garment Industry                        |
| 29           | Wood and Wood Products                  |
| 30           | Paper and Paper Products                |
| 31           | Chemicals and Fertilizer                |
| 32           | Petroleum Industry                      |
| 33           | Plastic and Rubber Products             |
| 34           | Non Metallic & Other Mineral Products   |

|    |                                           |
|----|-------------------------------------------|
| 35 | Basic Metal Products                      |
| 36 | Fabricated Metal Products                 |
| 37 | Other Manufacturing                       |
| 38 | Electricity, Gas and water                |
| 39 | Construction                              |
| 40 | Wholesale and Retail Trade                |
| 41 | Hotels and Restaurants                    |
| 42 | Tourist Shops and Travel Agents           |
| 43 | Transport                                 |
| 44 | Post and Communication                    |
| 45 | Banking, Insurance and Real Estate        |
| 46 | Ownership of Dwellings                    |
| 47 | Public Administration and Defence         |
| 48 | Other Personal Services                   |
| 49 | Wheat (zero production)                   |
| 50 | Plant-based fibers (zero production)      |
| 51 | Wool, silk-worm cocoons (zero production) |
| 52 | Coal (zero production)                    |
| 53 | Oil (zero production)                     |
| 54 | Gas (zero production)                     |