

14.11

Sri Lanka

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14.11.1 Sources of input-output data base

The purpose of this section is to document the procedure adopted in preparing the input-output (I/O) data base for Sri Lanka for the GTAP version 4 data base. The original data base was obtained from a single country CGE model of the Sri Lankan economy. This model was developed by the Center of International Economics (CIE) for the Sri Lanka Export Development Board in 1991 (see CIE, 1992, for details). The starting point of the CIE's I/O data base was an unpublished I/O table compiled by the National Planning Division of the Ministry of Finance and Planning for the year 1986. This unpublished table was substantially modified and updated to be consistent with the 1989 national account data and manufacturing survey data. The CIE did not publish the I/O data base of 1989 for the Sri Lankan economy. However, the Sri Lankan model was available at the Sri Lanka Export Development Board, for use in policy analysis. This model and the data base was further modified in a research project sponsored by the Australian Centre for International Agricultural Research (ACIAR). The purpose of this project was to develop a CGE model for Sri Lanka with an environment (land degregation) component, (see, for details, Bandara, *et al.*, 1995, and Bandara and Coxhead, forthcoming). This Sri Lankan I/O data base was used for the version 4 of the GTAP data base.

14.11.2 Conversion of the Sri Lanka I/O data

The I/O data base of the CIE model was available in a header array file which included domestic and imported intermediate commodity flows, capital flows, trade and transport margins and different taxes associated with different commodity flows. This I/O data base contained 35 industries and 35 commodities and the base year was 1989. All the values were given in million rupees. Several steps were followed to incorporate this data base into the GTAP version 4 data base.

Firstly, we rearranged the original header array file of the Sri Lankan CGE model according to the GTAP data format (with GTAP headers). In this process, detailed matrices of trade and transport matrices were adjusted to the relevant commodity flows. Matrices of commodity flows into capital creation (domestic and imported) were also aggregated into column vectors, to be consistent with the GTAP I/O data format.

Secondly, the modified 35-sector I/O data base was mapped into the GTAP classification as shown in table 14.11.1. This indicates that some of the sectors were required to be disaggregated according to the GTAP classification. This step was carried out by adopting a method commonly used in disaggregating industries in other developing regions in the GTAP data base.

References

- Bandara, J.S. and I. Coxhead, “Can Trade Liberalization Have Environmental Benefits in Developing Countries? A Sri Lankan Case Study”, *Journal of Policy Modeling* (forthcoming).
- Bandara, J.S., Coxhead, I., Chisholm, A.H., Ekanayake, A., and S. Jayasuriya. 1995. Economic Reforms and the Environment in Sri Lanka, Discussion Paper, 27/95, School of Agriculture, La Trobe University, Australia.
- Centre for International Economics (CIE). 1992. The Composition and Level of Effective Taxes for Exporting and Import Competing Production in Sri Lanka, Draft Report Prepared for Sri Lanka Export Development Board, Centre for International Economics, Canberra.

Table 14.11.1 GTAP-Sri Lankan I/O concordance

GTAP sectors		Sri Lankan I/O sectors
Code	Description	
pdr	Paddy rice	Other agriculture
wht	Wheat	Other agriculture
gro	Cereal grainss n.e.c.	Other agriculture
v_f	Vegetables, fruit, nuts	Other agriculture
osd	Oil seeds	Other agriculture
c_b	Sugar cane, sugar beet	Other agriculture
pfb	Plant-based fibers	Other agriculture
ocr	Crops n.e.c	Tea Other export agriculture Plantation development
ctl	Bovine cattle, sheep & goats, horses	Other agriculture
oap	Animal products n.e.c	Other agriculture
rmk	Raw milk	Other agriculture
wol	Wool silk-worm cocoons	Other agriculture
for	Forestry	Forestry
fsh	Fishing	Fisheries
col	Coal	Mining
oil	Oil	Mining
gas	Gas	Mining
omn	Minerals n.e.c	Mining
cmt	Bovine cattle, sheep & goat, horese meat products	Other food processing
omt	Meat products n.e.c	Other food processing
vol	Vegetable oils and fats	Coconut processing
mil	Dairy products	Other food processing
pcr	Processed rice	Rice processing
sgf	Sugar	Other food processing
ofd	Food products nec	Tea processing
b_t	Beverages & tobacco products	Other food processing
tex	Textiles	Textiles
wap	Wearing apparel	Clothing
lea	Leather products	Clothing
lum	Wood products	Wood products
ppp	Paper products, publishing	Paper products
p_c	Petroleum, coal products	Petroleum
crp	Chemical, rubber, plastic products	Rubber Fertilizer & chemicals Rubber products

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Table 14.11.1 GTAP-Sri Lankan I/O concordance (continued)

GTAP sectors		Sri Lankan I/O sectors
Code	description	
nmm	Mineral products n.e.c.	Glass, ceramic, etc.
i_s	Ferrous metals	Basic metals
nfm	Metals n.e.c.	Basic metals
fmp	Metal products	Fabricated metals
mvh	Motor vehicles and parts	Fabricated metals
otn	Transport equipment n.e.c.	Transport equipment
ele	Electronic equipment	Electrical equipment
ome	Machinery and equipment n.e.c.	Machinery equipment
omf	Manufactures n.e.c.	Other manufacturing
ely	Electricity	Electricity, gas, & water
gdt	Gas manufacture, distribution	Electricity, gas, & water
wtr	Water	Electricity, gas, & water
cns	Construction	Construction
t_t	Trade, transport	Trade and transport
osp	Financial, business, recreational services	Finance
osg	Public admin and defense, education, health	Public administration & defense
dwe	Dwellings	Housing