

AF Laos

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AF.1 Introduction

This document elaborates on the organization of the I-O table of Laos for the year 2017 to serve as input to the GTAP (Global Trade Analysis Project). The document has 4 sections – Section 2 describes the intricate details of the source data. Section 3 discusses the step-by-step process involved in mapping and processing of the raw data to meet the needs of the GTAP database. Section-4 describes the mapping between 35 sectors in the Laos I-O Table to 65 sectors of the GTAP.

AF.2 Data Sources

The primary source of input for the exercise is the 35-sector IO table published by Asian Development Bank for the year 2017. The data is presented in USD millions at current prices, in 2017. The raw table satisfies all the conditions and balance criteria required for conversion into the GTAP format.

The data had the following tables:

1. Symmetric Input-Output Table with details on the supply and use of 35 commodities at current prices. On the supply side, it has details of the domestic output and imports by commodity. On the demand or use side, the table has details of the demand for commodities by commodities, private household, government consumption, investment or capital formation, exports, and change in inventories.
2. Symmetric Input-Output Table of 35 domestic commodities by 35 commodities and by 5 users including private households, government, investment, exports, and change in inventories.
3. Symmetric Input-Output Table of Imports has details of the usage of 35 imported commodities by 35 commodities and by 5 users including private households, government, investment, exports, and change in inventories.

AF.3 Strengths and Limitations

Before organizing the IO table, we ran multiple checks through the data including the balancing conditions and sign checks. We also checked the structure of industry sales and costs. The following describes the strengths and limitations of the data.

Strengths

The original table had data for the supply and use of 35 commodities. The provision of separate matrices for domestic inputs and outputs, and for imported inputs and outputs, is its core strength.

The exports column in the imports matrix is zero throughout and so there are no re-exports in the data.

Limitations

- The table provides no data on domestic taxes and production taxes.
- There is no separate data for land, labor, and capital. All of them are aggregated as value-added at basic prices.
- The original data has an aggregated agricultural products sector. It provides no further disaggregation.
- There is no data for import taxes and tariffs.

AF.4 Converting the IO Table into GTAP format

Mapping between IO Sectors and GTAP Sectors

The original IO table has 35 sectors, and they are initially mapped to 31 sectors and eventually to 65 corresponding GTAP commodities. The mappings are as reported in the table below.

AF.5 Checking Sectoral Balance and Non-negativity Conditions

After converting the I-O table of Laos to the format required by the GTAP database, the table passes the balance and sign conditions.

Table 8.76: Sector listing and concordances against GTAP

31 Sectors	65 GTAP Sectors	35 Sectors
Agri	1 pdr, 2 wht, 3 gro, 4 v_f, 5 osd, 6 c_b, 7 pfb, 8 ocr, 9 frs, 10 fsh, 11 ctl, 12 rmk 13 wol, 14 oap	1.Agriculture, hunting, forestry, and fishing
minextract	15 coa, 16 oil, 17 gas, 18 oxt	2 Mining and quarrying
fdb_t	19 ofd, 20 b_t, 21 mil, 22 pcr, 23 sgr, 24 cmt, 25 omt, 26 vol	3 Food, beverages, and tobacco
texwap	27 tex, 28 wap	4 Textiles and textile products
lea	29 lea	5 Leather, leather products, and footwear
lum	30 lum	6 Wood and products of wood and cork
ppp	31 ppp	7 Pulp, paper, paper products, printing, and publishing
p_c	32 p_c	8 Coke, refined petroleum, and nuclear fuel
chmbph	33 chm 34 bph	9 Chemicals and chemical products
rpp	35 rpp	10 Rubber and plastics
nmn	36 nmn	11 Other non-metallic minerals
bmetal	37 i_s, 38 nfm, 39 fmp	12 Basic metals and fabricated metal
electric	40 ele 41 eeq	14 Electrical and optical equipment
machin	42 ome	13 Machinery, nec
transequip	43 mvh 44 otn	15 Transport equipment
otherman	45 omf	16 Manufacturing, nec; recycling
elygaswtr	46 ely 47 gdt 48 wtr	17 Electricity, gas, and water supply
cns	49 cns	18 Construction
trd	50 trd	19 Sale, maintenance, and repair of motor vehicles and motorcycles; retail sale of fuel
		20 Wholesale trade and commission trade, except of motor vehicles and motorcycles
		21 Retail trade, except of motor vehicles and motorcycles; repair of household goods
afs	51 afs	22 Hotels and restaurants
otp	52 otp	23 Inland transport
wtp	53 wtp	24 Water transport
atp	54 atp	25 Air transport
whs	55 whs	26 Other supporting and auxiliary transport activities; activities of travel agencies
cmn	56 cmn	27 Post and telecommunications
ofins	57 ofi 58 ins	28 Financial intermediation
rsadwe	59 rsa 65 dwe	29 Real estate activities
		30 Renting of M&Eq and other business activities
osg	62 osg	31 Public administration and defense; compulsory social security
edu	63 edu	32 Education
hht	64 hht	33 Health and social work
rosobs	60 obs 61 ros	34 Other community, social, and personal services
		35 Private households with employed persons