

Dynamic Input Output Analysis: Carbon, Water and Ecological Hierarchy

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Table S1. Specific classifications of various sectors within the metabolic system.

Industry	Number	Abbreviation	Full name
A	1	Agr	Agriculture
M	2	ME	Coal mining, petroleum and natural gas extraction
	3	MNM	Ferrous and nonferrous metals mining
PM	4	FBT	Food, beverage and tobacco production
	5	Tex	Textile industry
	6	Gar	Garments and other fiber products
	7	TF	Timber and furniture manufacturing
	8	Pap	Papermaking, printing and educational articles
AM	9	PC	Petroleum processing and coking
	10	CP	Chemical products
	11	NMP	Nonmetal mineral products
	12	MP	Metal products
	13	Equ	Equipment
	14	Was	Scrap and waste
E	15	ESW	Production and supply of electric power, steam and hot water
	16	Gas	Production and supply of gas
	17	TW	Production and supply of tap water
C	18	Con	Construction
T	19	Tra	Transportation
	20	WRC	Wholesale, retail trade and catering services
	21	Ser	Service
D	22	Dom	Domestic consumption

Note: Agriculture (Agr), coal mining, petroleum and natural gas extraction (EM), ferrous and nonferrous metals mining (MNM), food, beverage and tobacco production (FBT), textile industry (Tex), garments and other fiber products (Gar), timber and furniture manufacturing (TF), papermaking, printing and educational articles (Pap), petroleum processing and coking (PC), chemical products (CP), nonmetal mineral products (NP), metal products (MP), equipment (Equ), scrap and waste (Was), production and supply of electric power, steam and hot water (ESW), production and supply of gas (Gas), production and supply of tap water (TW), construction (Con), transportation (Tra), wholesale, retail trade and catering services (WRC), service (Ser) and domestic consumption (Dom). Analogy with the natural ecosystem could inspire the aggregation of twenty-two sectors into eight industries: agriculture (A), mining (M), primary manufacturing (PM), energy transformation (E), advance manufacturing (AM), tertiary industry (T), construction (C) and domestic consumption (Dom). Specific classification can refer to Table S1.

2000

2002

2005

2007

2010

2012