



17th International Input-Output Conference

TITLE: CO2 EMISSION INDUCED BY HOUSEHOLD CONSUMPTION IN CHINA

AUTHORS: WANG, YAN ; SHI, MINJUN

EMAIL: mjshi@gucas.ac.cn

COUNTRY: CHINA

**KEYWORDS: CO2 EMISSION ; HOUSEHOLD CONSUMPTION ; CHANGING LIFESTYLE ;
INVENTORY OF CO2 EMISSION ; CHINA**

PAPER CONFERENCE CODE: 107

FULL PAPER IN CD?: YES

ABSTRACT:

Change in lifestyle and increase in household living expenditures may lead to increase in CO2 emission. This paper estimated CO2 emission induced by household consumption in China based on input-output model and statistic data of household livings expenditure. The results show that CO2 emission per capita induced by household consumption has increased from 911kg to 1,564kg during 1995-2004. In 2004 CO2 emission per capita induced by household consumption in Shanghai is 4,499kg, while it in Yunnan is only 745 kg. Change in lifestyle has driven significant increase in CO2 emission. CO2 emission per capita induced by housing expenditure has increased from 399kg to 521kg, and it induced by transport expenditure has increased from 33kg to 189kg in past decade. CO2 emission increases with income growth. The income elasticity of consumption-induced CO2 emission is 0.8228 in urban areas and 0.5895 in rural areas. Although increase in household consumption in low-income regions with income growth may induce much more CO2 emission, a reasonable level of CO2 emission is needed to satisfy human basic needs and to improve household livelihood. A noticeable fact is that CO2 emission per capita induced by household consumption in developed areas of China has reached at a quite high level. Adjustment in lifestyle towards low-carbon society is required urgently.