

**WFP / IFAD**

**CHINA**

**A PRELIMINARY  
PROVINCIAL VULNERABILITY ANALYSIS**



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The findings, interpretations, and conclusions expressed in this report are those of the author and do not necessarily represent the views and policies of the World Food Programme or its Executive Director.

*Frontispiece:* In rural areas bicycles are still an important durable consumer good  
Photo by the author

# Contents

	<b>Acknowledgements</b>	<b>5</b>
	<b>Executive Summary</b>	<b>7</b>
	<b>Introduction</b>	<b>9</b>
<b>1</b>	<b>Risk Analysis and Socio-Economic Insecurity</b>	<b>11</b>
	1. Disaster prone areas	13
	2. Agricultural production and crop performance risks	15
	3. Fixed assets availability	17
	4. Sources of rural income	19
	5. Rural net income dynamics by component	21
	6. Price trends and rural/urban trends	23
	7. Rural household expenditure composition	25
	8. Ownership of durable consumer goods in rural areas	27
	9. Health conditions	29
	10. Child malnutrition	31
	11. Adult undernourishment and obesity	33
	12. Dietary patterns	35
	13. Anaemia patterns	41
	14. Calcium deficiency	43
	15. Retinol equivalent and riboflavin deficit	45
<b>2</b>	<b>Vulnerability</b>	<b>47</b>
	Why a vulnerability analysis?	49
	Vulnerability: provincial patterns	53

<b>3</b>	<b>Towards a county level vulnerability analysis</b>	<b>57</b>
	1. Poverty-stricken counties	59
	2. Clustering Chinese counties using “process indicators”	65
	3. County maps	76
<b>4</b>	<b>Annexes</b>	<b>93</b>
	1. How to use DMVCHINA	95
	2. Annex 1 – Main menu summary	97
	3. Annex 2 – Database contents by subject	99
	4. Annex 3 – Alphabetical index of variables	113

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Paolo Santacroce

Venice, December 1997



## Executive Summary

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The report is the outcome of activities that can be divided into three stages:

- the **WFP/IFAD Vulnerability Assessment Mission** (17 April - 2 May 1997);
- the conception and implementation of the “**China Province Reference Database for Vulnerability Analysis**”; and
- data processing and **analysis** of significant indicators extracted from the above database.

The purpose of the analysis has been to assist **WFP China Office and IFAD** to gain a better understanding of food security in the country, so that efforts to plan and implement their joint development programmes could be improved.

Since by definition vulnerability is a function of exposure to risk and of the population’s inability to cope with such risk, the analysis has focused on the identification of the most vulnerable areas and the causes of their vulnerability through **the description of districts profiles**.

The provincial analysis was limited by types of data and their availability. The VAM consultant has defined several factors of risk for China including natural disasters, agricultural production variability and crop performances. The ability of the rural population to cope has been analysed in terms of socio-economic security.

### Conclusions

China is a continent, consequently not a great deal can be expected from the use, although sophisticated, of a set of provincial indicators (because the level of aggregation is too high). Hence, the next stage is to compile county level database.

The analysis partially confirms the results of previous analyses and in some cases do not. In particular:

**The South-west and part of the West** are still affected by a rather composite vulnerability pattern which requires particular attention and specific food policy strategies. Not only **Yunnan, Qinghai, and Xinjiang** but also **Hainan, Shaanxi, Ningxia and Gansu** must be included in a target list of specific areas.

**Sichuan and Tibet** also need special attention.

Crop composition and dietary patterns frequently dictate particular vulnerability profiles in several parts of China and in particular in the northern areas of the country, including **North-east**.

There are still significant pockets of vulnerability in **Anhui, Hubei and Guizhou** provinces. A more detailed and local understanding is necessary to formulate realistic objectives for appropriate areas before any kind of intervention.

The **Coastal areas**, in spite of higher living standards, are still characterized by several vulnerable pockets which probably require more attention and less optimism based on the assumption that development will soon speed up in these areas.

## **Recommendations**

As demonstrated by the very promising results shown in Chapter 3 of this report, it is necessary to carry out a more detailed vulnerability analysis at county level and work on secondary data collection with a particular emphasis on “access and outcome data/indicators”. This is an urgent task.

The preliminary county level analysis, although based on few - at least for the time being - available indicators, has shown that **similar types of vulnerability spread across provincial boundaries**. If this is confirmed by further analysis, it will be useful to define target areas spatially on the basis of criteria used to identify types of vulnerability and not according to administrative (provincial) boundaries.

Nevertheless the **findings of this report** - although making reference to provinces - in conjunction with the very comprehensive contents of the ***China Province Reference Database for Vulnerability Analysis*** (distributed on floppy disk as an Annex to this report), **represent a fundamental starting point for the suggested, further disaggregated, analysis**.

**Wide distribution of the *Province Reference Database*** is therefore highly recommended. As the Database is compiled using the DMV (Database Map Viewer) software, a very user-friendly package, a few training sessions will be enough to allow users to browse the database and produce their personalized maps. A few additional sessions can take users on to an advanced level and enable them to update the database regularly.

The report is divided into **three parts**.

**Part One** deals with those types of risks/socio-economic insecurity that can contribute to a condition of vulnerability and for which it has been possible to collect statistical information at provincial level (30 provinces).

The focus here is on several topics:

- Environmental and agro-ecological risks, as identification of drought/flood-prone areas;
- Agricultural production and crop performance risks, particularly in terms of high inter-annual variability;
- Income level and composition, with particular reference to fixed assets ownership and the role of remittances;
- Socio-economic insecurity;
- Anthropometric patterns and their implications for anthropometric indicators;
- Diet composition and dietary risk factors, including anaemia, calcium deficiency, and intake levels of vitamins A and B.

Provinces are clustered, using multifactorial analysis techniques, according to their similarities in order to help decision-makers gain a better understanding of the complex picture regarding each topic.

**Part Two** offers the provisional results of the analysis carried out to identify vulnerable provinces and the different types of vulnerability to which they are subject.

The analysis guideline makes reference to the concept that a condition of vulnerability cannot be simply defined as a result of a concomitance of several risk factors. Only a more comprehensive analysis, which considers the socio-economic structure and its capability to cope with risk factors, can provide a better understanding of the phenomenon and information that is essential to draft a food aid policy.

As a corollary of the above, it is more important - in a well targeted analysis - to identify different types of vulnerability than simply to range areas or population as more or less at risk.

Consequently, Part Two offers a classification of the provinces of China clustered by type of vulnerability.

Because of the size of the country and the many and varied food supply and food access patterns, the resulting mosaic is complex. Unfortunately an analysis conducted at the provincial level hides significant intra-provincial differences. This obvious limit calls for a more disaggregated analysis (at county level).

At provincial level the results - unsurprisingly - tend to fit the Chinese “poverty-stricken” areas list quite well. What is new in the report is the description of each vulnerability pattern characterizing the provincial cluster. Such a multi-faceted description, although limited by the high spatial aggregation of the data, will provide useful inputs in targeting different types of intervention.

The cluster results are also available accessing the default “Data” menu of the “China Province Reference Database for Vulnerability Analysis”.

**Part Three** provides a **tentative classification of Chinese counties** based on the already available “process indicators” and calls for more disaggregated information, which will contribute to an understanding of vulnerability patterns at county level.

This part was not planned as one of the original activities, but the compilation of a preliminary county database was necessary in order to add important indicators for the provincial level analysis and improve its results.

In Part three the reader will find the results of clustering Chinese counties using the available “process indicators”.

The above classification provides preliminary, very clear “**process**” district patterns. **Integration with food access and outcome indicators is required to produce a true “vulnerability map of China”.**

Nevertheless **the results presented are certainly useful** and provide a clear demonstration of the quality and capability of the methodologies applied to produce them.

A **rather sophisticated set of maps** is presented, which includes the location of the Chinese “Poverty-Stricken Counties” listed in the “National 8.7 Poverty Alleviation Plan”, and analytical outputs have been produced in an attempt to verify coherence/contradictions between the Chinese “poverty” and WFP “vulnerability” criteria.

Finally, Annexes 1 to 4 contain the basic information and indexes needed to assist the user in browsing the “**China Province Reference Database for Vulnerability Analysis**” provided on floppy disk.



## **Risk Analysis and Socio-Economic Insecurity**

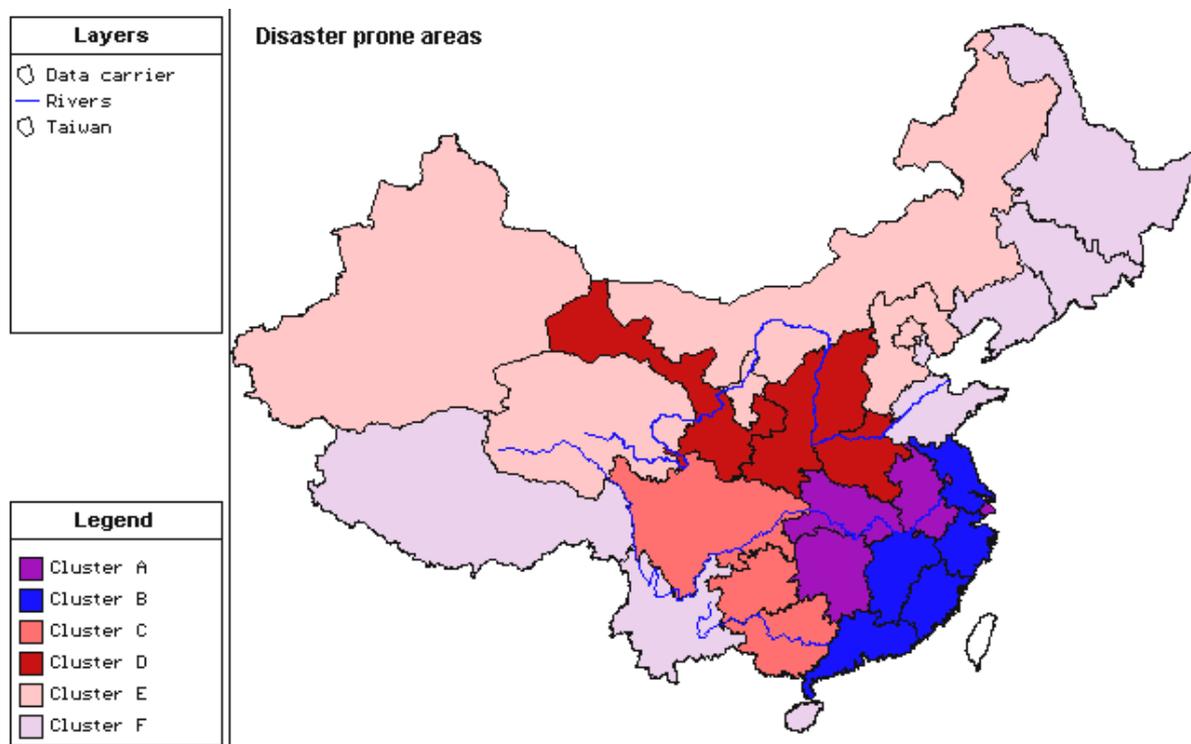


# 1 - DISASTER PRONE AREAS

As is well known, various parts of China were - during the last decade - affected by natural disasters and damage was caused by floods, drought, frost and freezing conditions, wind and hail. Around 80% of natural disasters were caused by **flood** and **drought**.

According to the most recent available statistics (average 1990-95), 16% of China's cultivated land was affected by floods, and 56% of this was seriously affected. In the same period drought affected 27% of cultivated land, of which 48% was seriously affected.

However, provincial patterns differ. An analysis of the available information shows a quite significant geographical distribution of the phenomena. Provinces were clustered according to types of risk and their inter-annual variability.



The most affected part of China belongs to the **Hubei, Hunan, Anhui** core area: due to landscape complexity these provinces must be considered at **high risk of flood and drought**. One third of their territory (and not always the same) was affected, and their share of seriously affected land was very high (in particular by flood: 62%). This area can be characterized as the most flood and drought critical one - the high inter-annual variability of the two phenomena contribute to this characterization. We can suppose that coping mechanisms are less developed than in other areas where the population is facing natural disasters yearly (**Cluster A**).

A second critical area, particularly prone to **flood-related disasters**, includes the South and East China Seas coastal provinces (**Guangdong, Fujian, Zhejiang, Jiangsu**)

and **Jiangxi**. But in this case the inter-annual flood variability is rather low and coping mechanisms are probably more developed (**Cluster B**).

The inner band running from **Sichuan to Guangxi through Guizhou** appears mainly as a **highly drought prone area**, with occasional local flooding. The low inter-annual variability leads us to suppose that the population is used to coping, particularly with drought (**Cluster C**).

The central-northern band running **from Gansu to Henan through Ningxia, Shaanxi and Shanxi** presents a **higher drought risk**. In this case too the inter-annual variability is rather low (**Cluster D**).

**Northwestern areas** of China show a better pattern, in spite of **moderate drought risks** (**Cluster E**).

Finally **Northeastern, Central coastal areas, Tibet, Yunnan and Hainan** show a better profile, when compared with the national overall pattern (**Cluster F**).

## 2 - AGRICULTURAL PRODUCTION AND CROP PERFORMANCE RISKS

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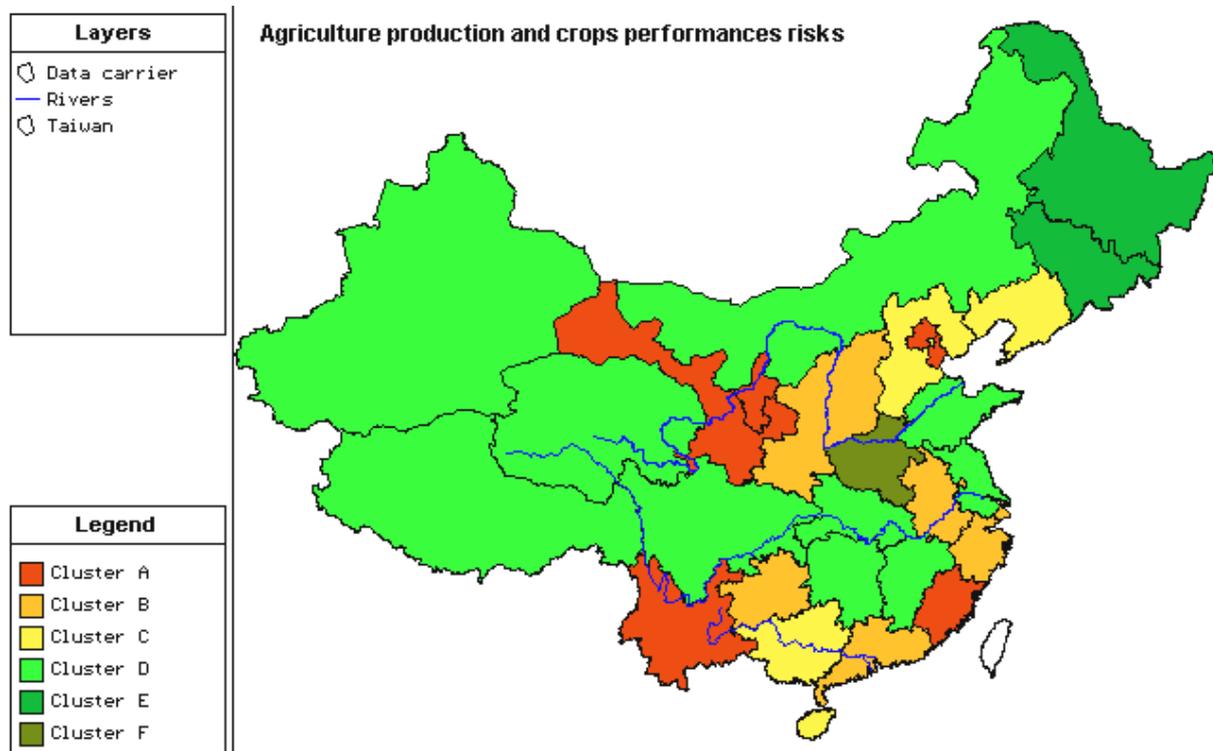
The last available information (1995) disaggregated at provincial level indicates that China produced 46,661\*10,000 tons of grain crops. The Chinese definition of grain crops includes cereals (rice, wheat, corn, millet, sorghum and others), but also beans (including soybeans) and tubers (including potatoes).

In the same year 2,250\*10,000 tons of oil-bearing crops (including peanuts, rapeseed, sesame, linseed and sunflower) and 52,600,850 tons of meat (which refers to carcass weight) were produced.

Production fluctuations during the last half decade, for which data are available (1990-95), were more significant for meat and oil-bearing crops than for grain crops. The inter-annual coefficients of variation were respectively: 0.23 (meat), 0.17 (oil-bearing crops) and 0.06 (grain crops).

Probably such figures are better understood when put in terms of per capita production. The national average figures during the same half decade were the following: 390 kg of grain crops, 16 kg of oil-bearing crops and 33 kg of meat.

The above national figures hide important differences between provinces. Given the assumption that cropping patterns respond to existing agrometeorological conditions, the significant differences found in the study are highly relevant for targeting purposes.



Four provinces (**Fujian, Yunnan, Ningxia and Gansu**) are characterized by **extremely low per capita figures**. Per capita grain crop and meat production is around 25% lower than the national average, and the oil-bearing crops figure is lower still (less than half of the national average). Beijing and Tianjin belong to this cluster, but this is probably a result of urbanization and a more open economy (**Cluster A**).

The adjacent areas including **Shaanxi, Shanxi** (in the north-west), **Guizhou and Guangdong** (in the south and south-west), **Anhui, Zhejiang and Shanghai** provinces present a **slightly better profile**. Though per capita grain and meat production figures are low, the per capita oil crops production figure is better. It must, nevertheless, be stressed that the inter-annual variability of the grain crops performance was double the national average; consequently this cluster should be carefully monitored (**Cluster B**).

Two provinces of the North-central area (**Hebei, Liaoning**) and the two southern provinces of **Guangxi and Hainan**, showing an overall profile nearer to the national one, must nevertheless be identified as poor in terms of per capita oil-seed production. In addition, also in this case, the grain crop performance inter-annual variability was rather elevated (**Cluster C**).

A rather positive profile, in terms of significantly higher figures as compared with the national ones, belongs to **North and Southwestern provinces not mentioned above** and to several provinces in the Yangtze River region (**Hunan, Hubei, Jiangxi, Jiangsu and Shandong**) (**Cluster D**).

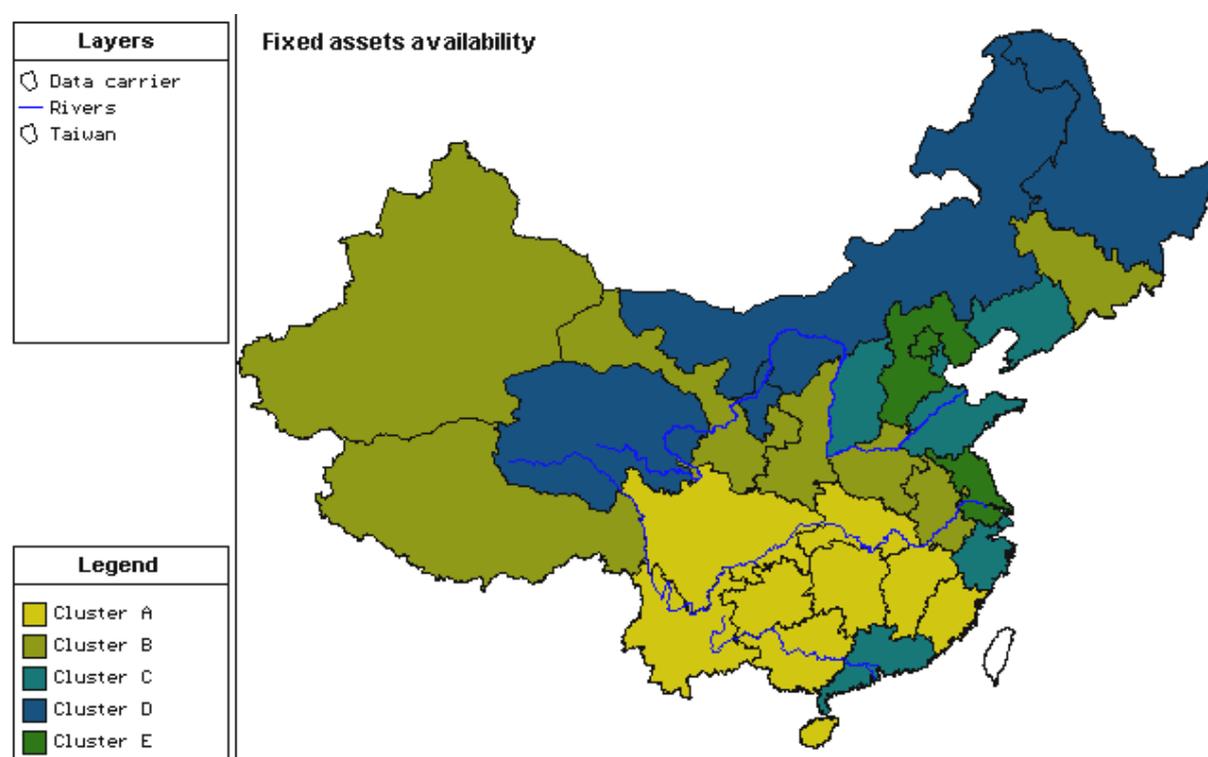
The analysis has isolated, by a clustering procedure, part of the North-east (**Jilin and Heilongjiang**) characterized by a “**dichotomy**” profile. High per capita grain crops production is found together with a very low per capita oil-bearing seeds crop production figure and low per capita meat production. Apparently this dichotomy affects diet patterns (**Cluster E**).

Finally the cluster analysis has identified **Henan** province as another isolated case, characterized by rather low per capita grain crop and meat production, and rather high oil-bearing crops per capita production (**Cluster F**).

### 3 - FIXED ASSETS AVAILABILITY

Fixed assets availability is frequently used as a proxy indicator in order to get a preliminary, rough idea of agricultural economic level. Chinese statistics only offer the opportunity of describing the spatial availability of a few of these fixed assets. There is a spatial dichotomy between the availability of tillage machines/small sized tractors and draught animals.

The map here below shows the outcome of a clustering analysis using both indicators.



One glance is enough to see that **South China** (excluding Guangdong and part of Zhejiang province) is characterized by a very low level of mechanization (3.5 tillage machines/small sized tractors per 1000 rural population, less than half of the national average) and, at the same time, by a similarly low level of draught animal availability (71 per 1000 farmers, while the national average is 101). As we will see, this low level of fixed assets availability is accompanied by weak crop performance indicators. Both indicators together can contribute to identify vulnerability conditions (**Cluster A**).

There are two symmetric clusters:

Western areas (**Tibet, Xinjiang, Gansu**) together with **Shaanxi, Henan and Anhui** show a low availability of draught animals but are better off in terms of tillage machines/small sized tractors (**Cluster B**).

Several eastern provinces (**Guangdong, Zhejiang, Shanghai, Shandong, Shanxi and Liaoning**) on the other hand are well equipped (when compared with the national average) in terms of draught animals, while they are similar to the national average in terms of tillage machines/small sized tractors (**Cluster C**).

Tillage machine/small sized tractor availability is high in **Qinghai, Ningxia, Inner Mongolia and Heilongjiang**, where it is three times more than the national average (**Cluster D**).

Finally the fact that **Beijing, Hebei** and part of **Jiangsu** are the best equipped areas, particularly in terms of draught animals, is hardly surprising (**Cluster E**).

## 4 - SOURCES OF RURAL INCOME

The SSB publishes annual figures of “net income per capita in farmers’ households” disaggregated by sources at provincial level.

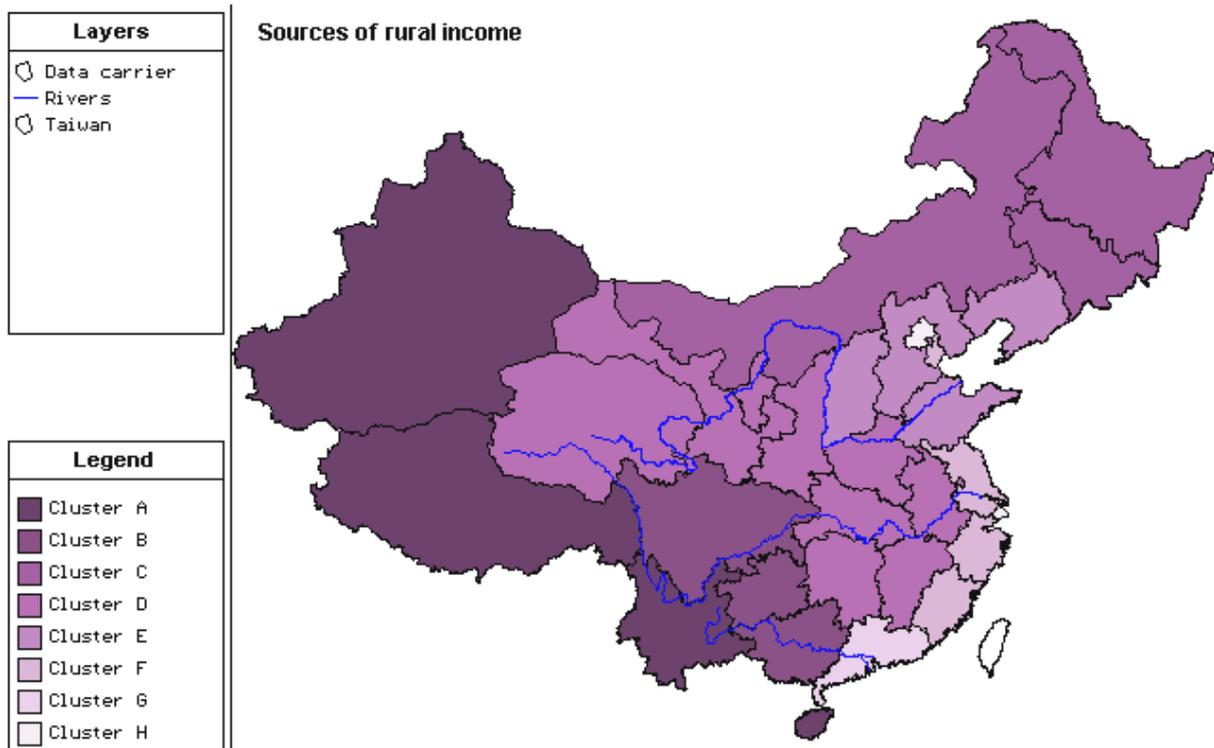
Sources of income are divided into four categories:

- payment for labour (sometimes translated as “reward of income”)
- household business (farming and other primary activities, but also kinds of household activity)
- transferred income
- property income.

It is an important data set, as it allows Chinese provinces to be clustered according to criteria of mono/differentiated source of income. In addition, the fact that the extra household component is published disaggregated in three sub-components is of interest, as we may assume that coping mechanisms differ when the major external contribution comes from either labour opportunities or remittances.

For this reason the income analysis part of this report contains three sub-analyses: a static analysis (1995), whose results are summarized here below, a dynamic analysis (1993-95) and a rural/urban comparison described in the following pages.

The results of a cluster analysis, carried out using the provincial per capita net income figures and its four components for 1995 (the last year for which data are available) are shown below. The provincial pattern that emerges is more or less self-explanatory.



The **least-favoured area** is located in a southwestern band of China running **from Hainan to Xinjiang through Yunnan and Tibet**. Not only is per capita net income low, but in addition the population can count only on its household activities; the labour income contribution is, in general, the lowest in China. The remittance mechanism is important (when compared with the overall national figure), but still plays a marginal role (**Cluster A**).

The adjacent band running **from Guangxi to Sichuan through Guizhou** is rather similar, but transfers and labour opportunities generally play a major role (**Cluster B**).

A geographically distinct band is defined by a third cluster including **Inner Mongolia, Heilongjiang and Jilin**. Though the average income is higher when compared with the previous two bands, here too populations can count only on their household activities; contributions from other sources are extremely low if we exclude property (**Cluster C**).

Sandwiched between the above bands lies the rest of China, which can be split into areas characterized by the three patterns described below.

The core defined by the internal provinces of the Yangtze River (**Anhui, Jiangxi, Henan, Hubei, Hunan**) and the remaining Northwestern provinces (**Shaanxi, Ningxia, Gansu and Qinghai**) presents an income source pattern similar to the national one, slightly more oriented towards a household component. But the most significant difference consists of an average income far below the national average (**Cluster D**).

The four provinces around Beijing (**Hubei, Shanxi, Shandong and Liaoning**) enjoy better conditions. **Income** levels are close to the national average and the contribution made by labour is particularly important (**Cluster E**).

The contribution of household business to income composition in the East China Sea coastal provinces (**Jiangsu, Zhejiang, Fujian**) and **Tianjin** is one of the lowest of all. The high income level goes together with a very consistent labour component (**Cluster F**).

Next, we find the isolated cluster of **Guangdong** province, where the role of remittances is important in the composition of a high income (**Cluster G**).

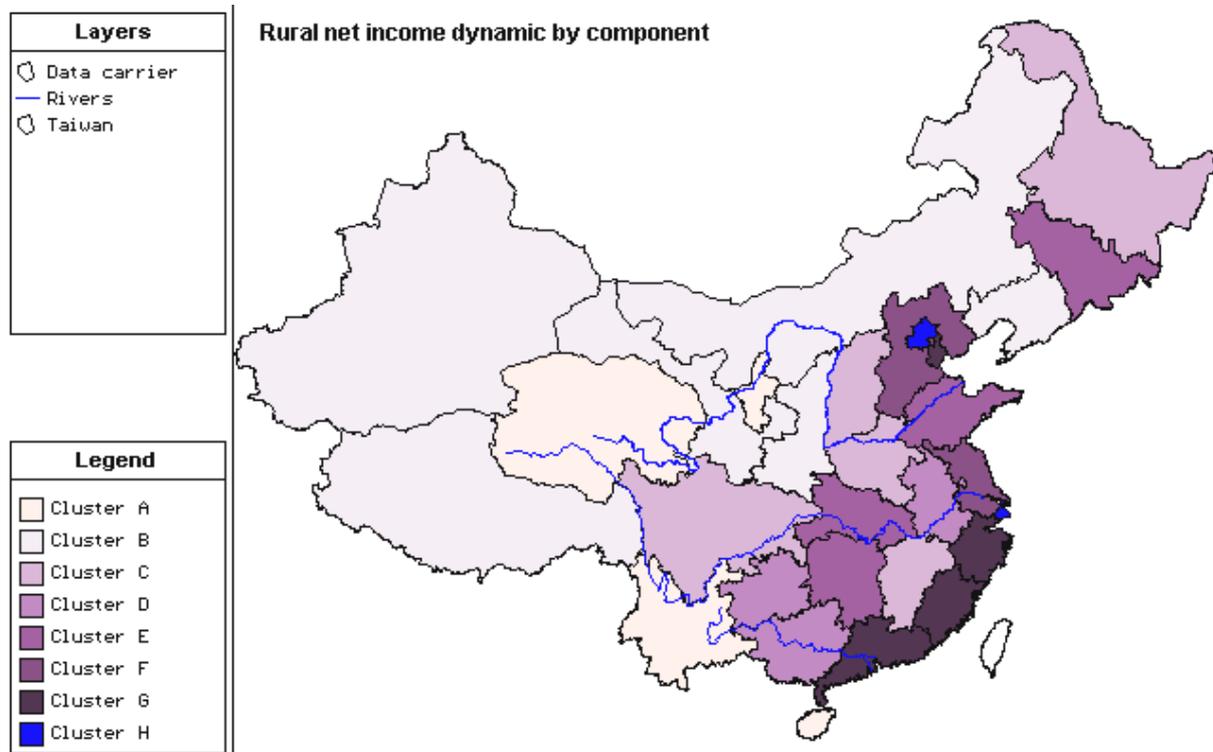
Finally **Beijing** and **Shanghai** show an isolated pattern: they are at the highest income level and here, for the first time in rural China, the labour component is more important than the household business component (**Cluster H**).

## 5 - RURAL NET INCOME DYNAMICS BY COMPONENT

A rural income dynamic analysis at provincial level can be carried out only for a short period, as for several provinces data disaggregated by income sources are not available earlier than 1993.

In spite of this, the results confirm a view that has been stated elsewhere: *“China is in a period of economic transformation. Market economy is developing in China. The differences in income between urban and rural population are increasing.... The speed of development in rural areas [is] not so fast as that in urban areas”* (NNS, 1992, page 100).

The map below focuses on the dynamics (1993-95 at comparable prices) of three income components: household business, payment for labour, and transferred income.



A first cluster includes **Yunnan, Hainan, Ningxia and Qinghai** provinces, and is characterized by **low income** and **very slow growth of income components** (less than half of the national average). In particular household income labour integration through transfers and labour grew extremely slowly. This means that these areas can only partially count on “extra-household activities” income opportunities (**Cluster A**).

A very similar cluster, in dynamic terms, includes the **North-west region, Tibet and Liaoning** provinces. The starting overall net income is generally a bit higher, but the income components grew very slowly; only the growth rate in remittances (transferred income) was significant (**Cluster B**).

A third cluster, to which **Shanxi, Henan, Jiangxi, Sichuan** and **Heilongjiang** belong, includes mainly low income provinces with an overall **growth rate similar to the national trend**. While transferred income starts to be significant the labour component is less dynamic (**Cluster C**).

Another low level income cluster, but with a **dynamic income growth rate** particularly due **to the labour component** and where the role of **transfers** is increasing, includes **Anhui, Guizhou and Guangxi** provinces (**Cluster D**).

A **dynamic income growth rate** (all components) also characterized the middle income provinces of **Hubei, Hunan, Shandong** and **Jilin** (**Cluster E**).

An **even more dynamic income growth rate** characterizes the already middle-high income level provinces of **Hebei** and **Jiangsu**. In these provinces the **household business** component was significantly **higher** than in other parts of China (**Cluster F**).

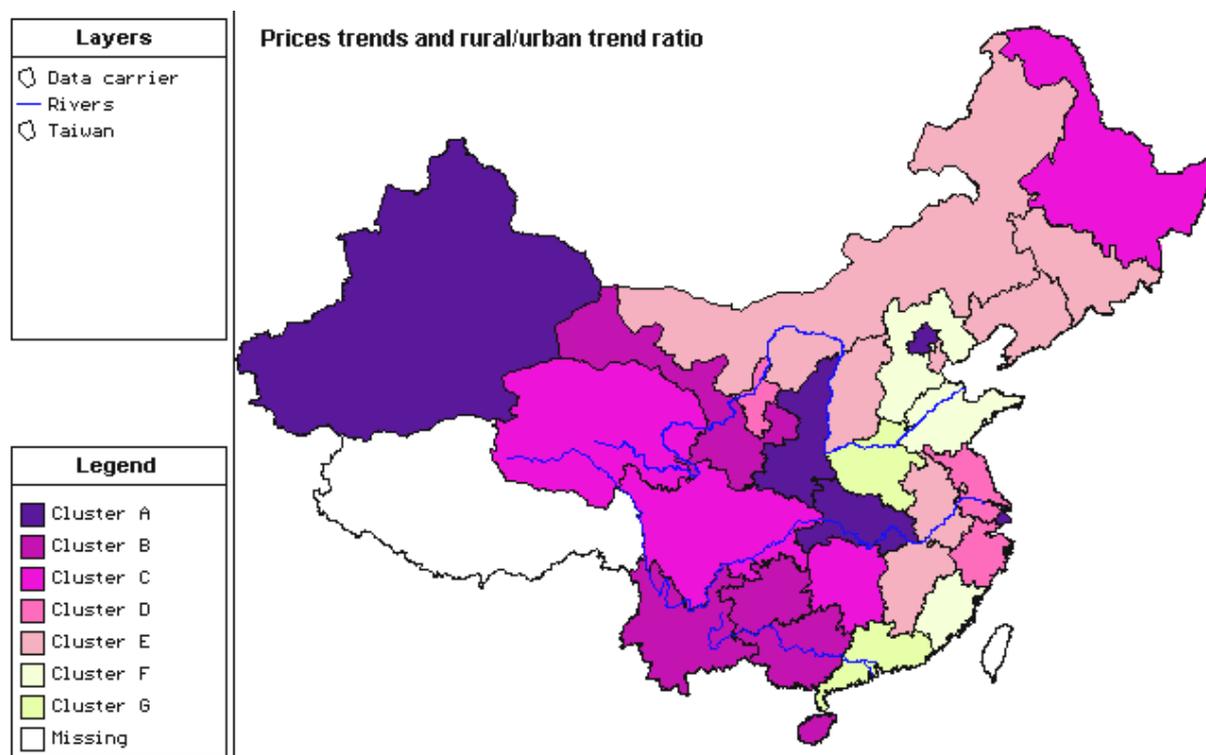
At the top of the list, if we exclude high income **Beijing and Shanghai** provinces (characterized by the **high growth rate of the transfer** component) (**Cluster H**), we cluster three East China Sea coastal provinces (**Guangdong, Fujian** and **Zhejiang**) and **Tianjin**. Here high income levels are strengthened by a significant **labour opportunities growth rate** (**Cluster G**).

## 6 - PRICE TRENDS AND RURAL/URBAN TREND RATIO

Chinese statistical sources offer an opportunity to carry out an analysis of price trends comparing urban and rural trends by type of aggregated items.

According to the most recently available rough estimate at comparable prices, the national average overall consumer price index was 178.5 in 1995 (1990=100). Overall prices increased at comparable rates in urban and rural environments (179.6 for the former, against 177.7 for the latter). If we look at the prices of two fundamental items, food and clothing, we see that the clothing price index increased slightly less than the overall price index (171.1 against 178.5) but the food price index was appreciably higher (226.6).

A provincial level analysis, carried out using the above information, shows the differences in price behaviour for different areas of China. The main clustering results are shown in the map below.



The first cluster includes provinces characterized by **very high overall price increases** (and **in particular of food**): this cluster includes not only the provinces of **Beijing** and **Shanghai** but also those of **Hubei**, **Shaanxi** and **Xinjiang**. The effects, if we take into account the income differences and the consumption composition, must be carefully monitored. For this cluster, prices generally increased – in general - slightly less in rural areas (**Cluster A**).

South-western provinces (**Yunnan**, **Guizhou**, **Sichuan**), **Hainan** and **Gansu** saw **high overall price increases**, although less marked than in the previous cluster. Here too,

food prices increased more than the overall average; but rural areas experienced higher price increases than urban ones (**Cluster B**).

In between the two previous clusters lies a third group of provinces (**Hunan, Sichuan and Qinghai**) that has similarities with those of Cluster B, but is characterized by a similar trend for urban and rural areas (**Cluster C**). **Heilongjiang** province also belongs to this cluster.

Two coastal provinces (**Zhejiang and Jiangsu**) and **Ningxia** show a different profile: a more than average increase in overall prices was mainly due to the urban component; the situation was comparatively better in rural areas. Nevertheless both food and clothing were affected by high price increases (**Cluster D**).

The lowest increase in overall prices (and particularly of food and clothing) was registered in **Guangdong and Henan**. In these provinces the rural areas were favoured (**Cluster G**).

A similar, although less positive overall profile belongs to **Fujian, Shandong and Hebei**; and in this cluster the rural areas were also more favoured (**Cluster F**).

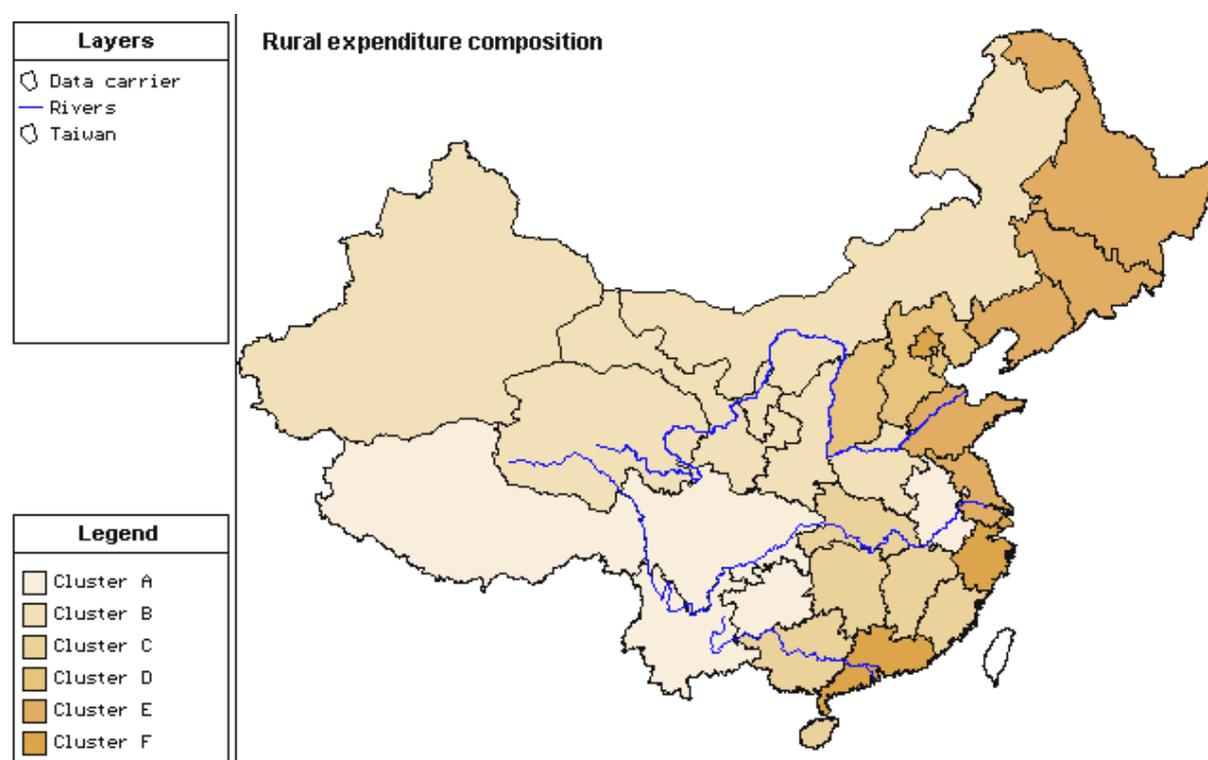
The last cluster comprises provinces characterized by a national average profile. It includes: **Jilin, Liaoning, Inner Mongolia, Shanxi, Anhui and Jiangxi** (**Cluster E**).

## 7 - RURAL HOUSEHOLD EXPENDITURE COMPOSITION

The composition of household expenditure is another useful proxy indicator that can help provide a better understanding of rural households' income level and purchase capacity.

Four components of regular cash expenditures were processed simultaneously: food; clothing; medicines and medical services; and cultural, educational and recreational articles and services. In addition, for food expenditure the importance of the cash component was considered. Income level and availability of tap water in rural areas were also included in the computation.

The clustering procedure has produced a geographically regular profile, shown by the map below.



The worst-off area, characterized by a high food component in household expenditure, includes the Southwestern provinces of **Tibet, Sichuan, Yunnan** and **Guizhou**. **Anhui** province also belongs to this cluster. Medical and cultural expenditure is very low, and tap water availability is scarce. Nevertheless the cash component for food expenditure is high; which may be an additional sign of weakness (**Cluster A**).

The contiguous northern band from **Xinjiang** to **Henan**, through **Qinghai, Gansu, Ningxia** and **Shaanxi** province and up to **Inner Mongolia** shows a similar, although smoother profile. Clothing expenditure is higher, the cash component for food is significantly low and tap water availability is rather low (**Cluster B**).

The southern areas of **Fujian, Jiangxi, Hubei, Hunan, Guangdong** and **Hainan (Cluster C)** and the northern areas of **Tianjin, Hebei** and **Shanxi (Cluster D)**, in spite of having a similar per capita income, show different expenditure composition patterns. In the North the clothing and medical components are more evident, while in the South the food component is still important and in particular its cash component. Tap water availability shows a dichotomous pattern: availability is good in the North, scarce in the South.

North-east (**Heilongjiang, Jilin** and **Liaoning**), **Shandong** and **Jiangsu** provinces show a positive, more balanced profile (**Cluster E**).

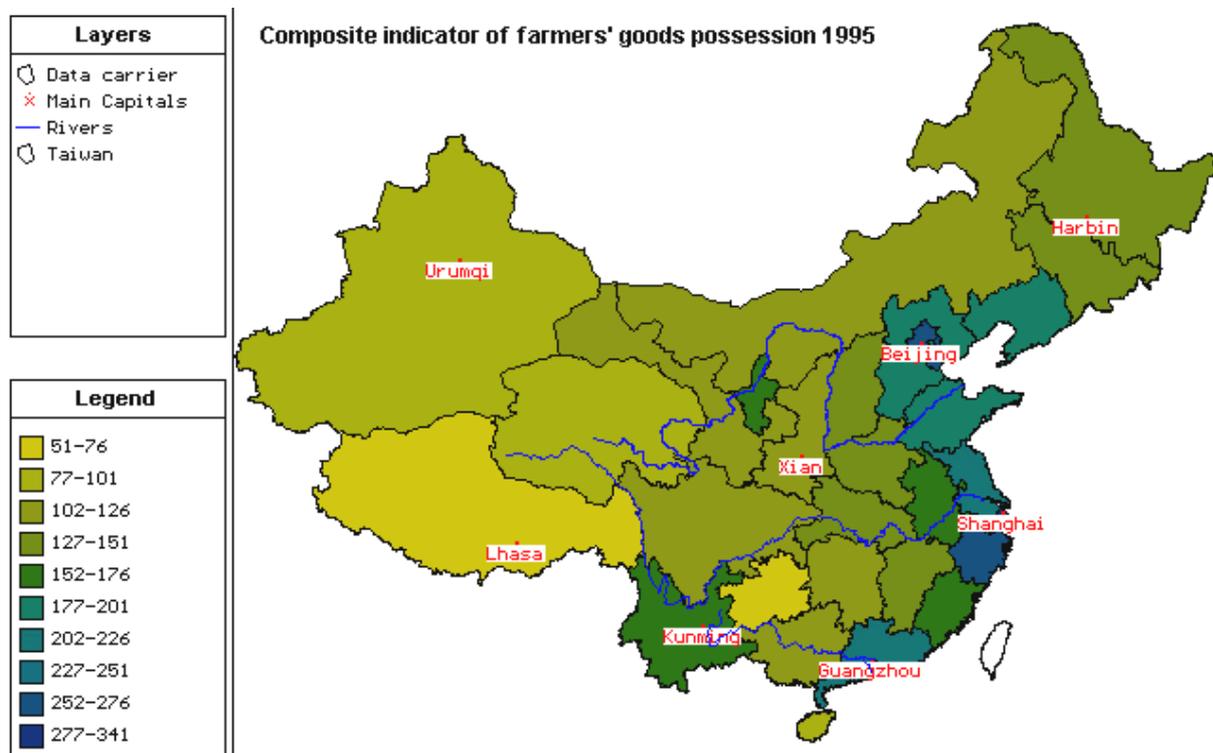
Finally the **Beijing, Shanghai, Zhejiang** and **Guangdong** cluster shows the typical profile of high income areas: low food component (but high food cash component), significant cultural expenditure and high availability of tap water (**Cluster F**).

## 8 - OWNERSHIP OF DURABLE CONSUMER GOODS

Possession of durable consumer goods can be considered a good proxy indicator for income. Chinese statistics provide information for many of these goods, e.g. bicycles, sewing machines, radio and television sets.

The possession of a bicycle is rather common in rural areas too; 1995 figures indicate 33 bicycles per 100 farmers (Beijing rural area was the best equipped, Guizhou the worst). The possession of sewing machines and of radio/TV sets is less frequent; inter-provincial variability is higher.

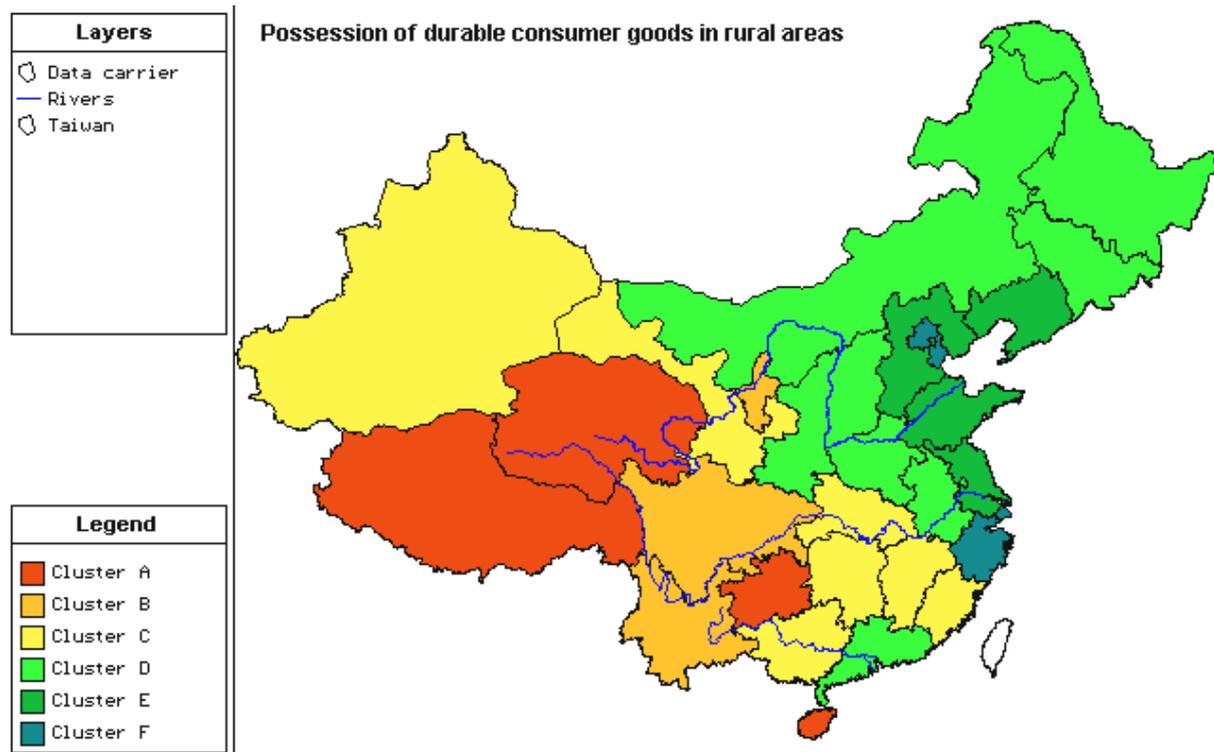
An attempt has been made to define a composite (weighted) indicator with the purpose of summarizing the provincial level of possession of four principal durable consumer goods. Provincial composite indicator figures are shown in the map here below as compared with the same national figure (national composite indicator = 100).



The map summarizes and clearly brings to the fore the relevant differences between the coastal regions and the internal ones.

Nevertheless a composite indicator cannot show, by definition, the mix of the single components included in the index. For this reason we have clustered the data set in order to identify similar provincial profiles.

The results are shown in the map on the next page.



The first area, with a lower possession of the four consumer goods and with the lowest composite indicator, includes **Hainan, Guizhou, Qinghai and Tibet**. It is worth noting the extremely low level of ownership of radio and TV sets (**Cluster A**).

**Yunnan, Sichuan and Ningxia** provinces form the following cluster. Radio and TV set possession is still very low; possession of bicycles and sewing machines is slightly higher; nevertheless the composite index is still half of the national one (**Cluster B**).

The **highest levels** of possession of durable consumer goods, in particular TV sets and bicycles, are found in **Beijing, Tianjin, Shanghai and Zhejiang (Cluster F)**.

The above area is linked by a core area running from **Liaoning to Jiangsu** through **Hebei and Shandong** provinces. This shows a similar profile but - significantly - with fewer bicycles (**Cluster E**).

In between the two opposite groups of the previous four areas we find two clusters:

The Southern area - which includes **Guangxi, Hunan, Jiangxi, Fujian and Hubei** provinces - and the Northwestern provinces of **Xinjiang and Gansu**, characterized by a **middle-low profile**. Here also, as in the contiguous less equipped provinces, the low possession level of radio and TV sets is relevant (**Cluster C**).

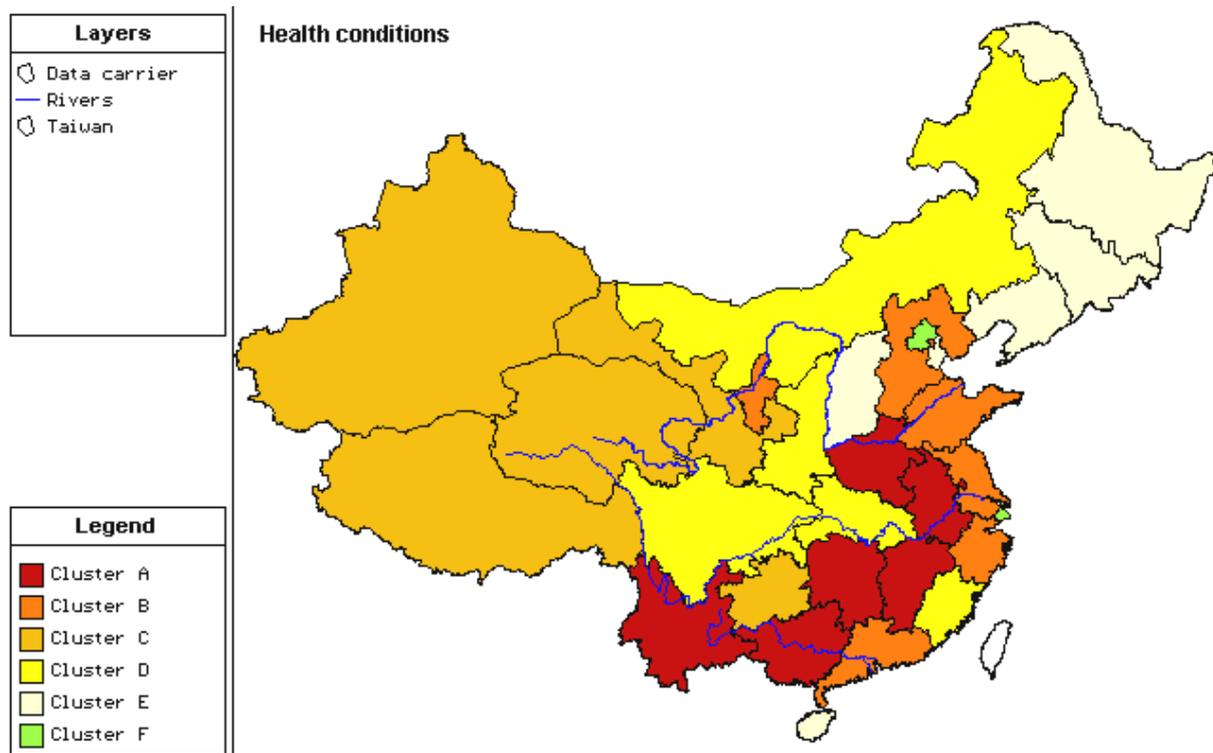
A middle-higher profile is shown by the remaining provinces which present a significant geographical continuity: from **Heilongjiang and Jilin to Inner Mongolia** and then down through **Shanxi and Shaanxi** up to **Henan and Anhui**. In this cluster the composite index slightly exceeds the national average (**Cluster D**). **Guangdong** province also belongs to this cluster.

## 9 - HEALTH CONDITIONS

China is characterized by rather high provincial inequality of health services. The most recent available statistics show 23.5 beds per 10,000 inhabitants. Unfortunately separate data for the urban and rural areas of each province are not available. Consequently the analysis is very limited and its results cannot be easily matched with other results coming from analysis of provincial rural areas.

In any case the above national average hides crucial provincial differences (from 17 beds per 10,000 inhabitants in Sichuan to 54 beds per 10,000 inhabitants in Beijing). The same can be said about information relating to per capita personnel and medical-technical personnel availability.

Health services data are not the only, and not necessarily the best, means by which to gauge health conditions in a country, but other data are not systematically available. We have made use of some static information (1990, last available year) on the **mortality rates of infants and children under five years of age** in order to build more complex district profiles. However it is true that the above two indicators are not necessarily significantly correlated with health services distribution.



The map shows the results of our cluster analysis.

The **most critical part** of China extends along a continuous arch of provinces, running from **Yunnan** to **Henan** through **Guangxi, Hunan, Jiangxi and Anhui**. In this area not only is the availability per capita of beds, personnel and medical-technical personnel

lower than the national average, but the infant and child (under 5 years) **mortality rates reach significantly high levels** (20% more than the national average) **(Cluster A)**.

The **coastal provinces** from South China to the Yellow Sea (**Guangdong, Zhejiang, Jiangsu, Shandong**, excluding Fujian) and **Hebei** show similar, although slightly better, health services patterns but are characterized by low mortality rates. This dichotomy leads us to suppose that reproductive conditions are improved but are still developing in a poor health environment **(Cluster B)**.

Western provinces (**Tibet, Qinghai, Xinjiang**) and **Guizhou**, on the other hand, show a different profile: average health conditions occur in concomitance with very high mortality rates (in particular children under 5 years) **(Cluster C)**.

Average figures for the whole set of indicators characterize a central band including **Sichuan, Hubei, Shaanxi and Inner Mongolia (Cluster D)**.

Conditions are far better in the Northeastern Provinces (**Heilongjiang, Jilin, Liaoning**), **Tianjin** and **Shanxi (Cluster E)**.

Finally **Beijing and Shanghai** provinces emerge for their **high levels of health service provision** (when compared with the national levels) and very low mortality rates **(Cluster F)**.

## 10 - CHILD MALNUTRITION

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The most recent provincial information on child malnutrition (including both under- and over-nutrition) can be found in the “Third National Nutritional Survey” carried out in 1992.

For children under 6 years of age, the surveyed rates were: for wasting, 8%; for stunting, 33%; and for underweight, 18%. The overweight rate was 3%. Data for Tibet and Liaoning are not available.

The survey brought to the fore very high provincial differences in terms of both “underdeveloped” and “overweight” children.

The proportion - by province - of “**underdeveloped**” children below 6 years of age, defined as  $Z_{score} < -2$  (referring to the NCHS standard), according to the traditional three indicators, showed:

- for wasting (weight for height): a minimum in Anhui (0.7%) and a maximum in Shaanxi (15.0%) province;
- for stunting (height for age): a minimum in Shanghai (2.2%) and a maximum in Jiangxi (53.8%) province;
- for under-weight (weight for age): a minimum in Beijing (0.0% ??) and a maximum in Hainan (34.1%) province.

The proportion - by province - of “**overweight**” children under 6 years, defined as  $Z_{score} > 2$  (NCHS standard) revealed very high inter-provincial variability: from 0.6% in Sichuan to 9.2% in Heilongjiang.

Several provinces were characterized by a similar pattern for the “underdeveloped children” indicators; in other cases high underweight and wasting rates did not match with high stunting rates. This is not surprising, as the height per age indicator is more related to long-term, structural conditions, while the other two indicators are more sensitive to short-term, current conditions.

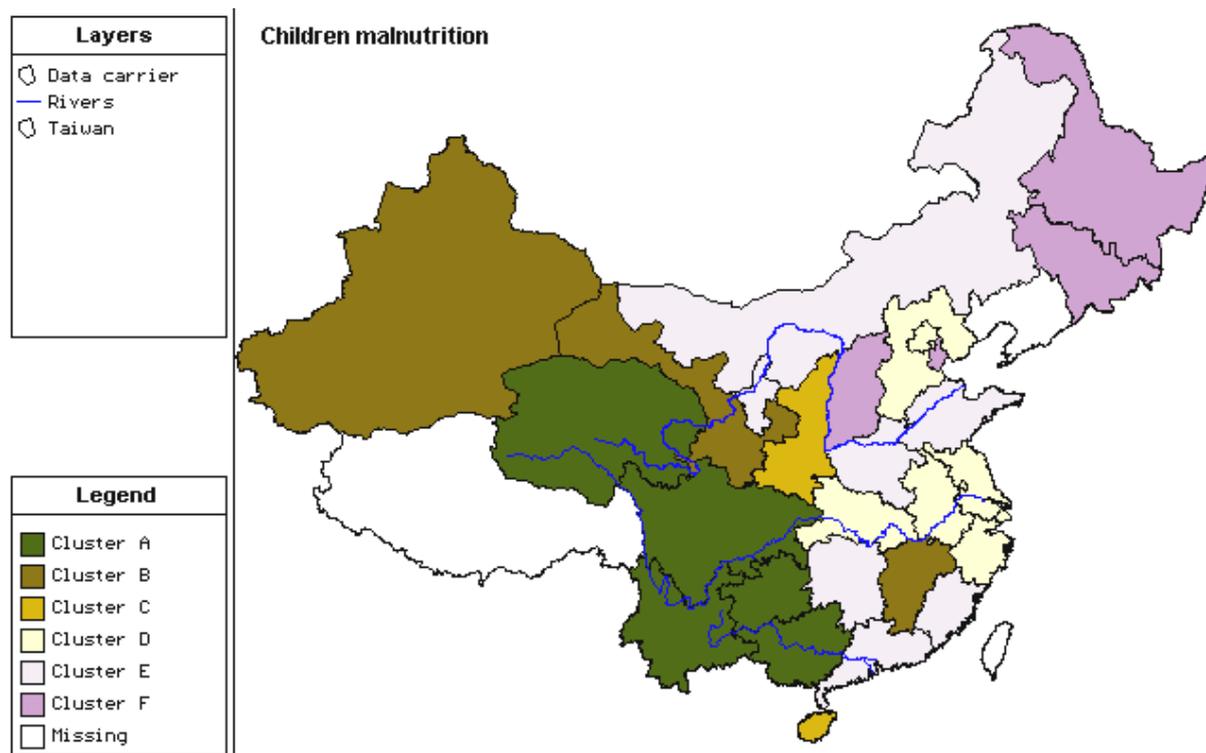
Consequently, a multifactorial analysis has been carried out in order to identify similar provincial patterns. The clustering also included other available data that could be related to a particular nutritional status: infant and adult female anaemia, iodine deficiency, overweight children, and infant and child (under 5 years) mortality rates.

The map on the next page shows perfectly the complexity of provincial patterns.

A **core area** including the five provinces of **Guangxi, Guizhou, Yunnan, Sichuan** and **Qinghai** is characterized by the **concomitance of high under-nutrition indicators**. The picture is completed by very high infant and particularly child (under 5) mortality rates, female adult anaemia and iodine deficiency (**Cluster A**).

A similar, but slightly better, profile is shown by the **Gansu** and **Xinjiang** contiguous provinces and **Jiangxi (Cluster B)**.

**Hainan** and **Ningxia** provinces are clustered separately as they have the peculiarity of a lower stunting rate, while wasting and underweight rates are significantly high when compared with the previous clusters (**Cluster C**).



The best pattern, where all the malnutrition indicators are under the national averages, includes **Beijing**, the **Hebei** area and the **Hubei, Anhui, Jiangsu, Shanghai** and **Zhejiang** band. Nevertheless in this area anaemia is still an endemic problem (**Cluster D**).

A similar, positive pattern characterizes the contiguous provinces of **Inner Mongolia, Shandong, Henan, Fujian** and **Guangdong**. However, in general, infant and child (under 5 years) mortality rates are higher, as well as iodine deficiency (**Cluster E**).

Finally a peculiar cluster is represented by **Heilongjiang, Jilin, Tianjin** and **Shanxi**. In these provinces the new (for China) phenomenon of overweight children is more evident, although it can also be found in other provinces (**Cluster F**).

## 11 - ADULT UNDERNOURISHMENT AND OBESITY

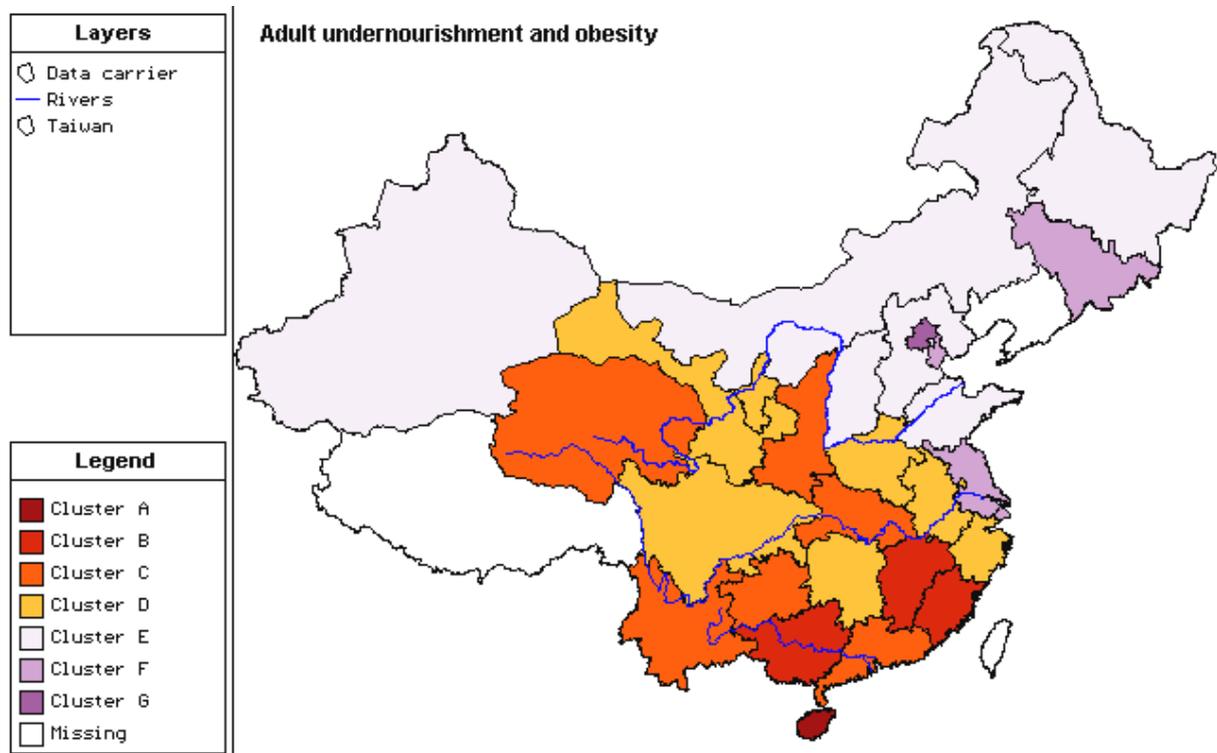
Body Mass Index (BMI) is a standard international indicator used to assess the nutritional status of an adult population. The “Third National Nutritional Survey” (1992) provided evidence that the Chinese population, while still partially affected by undernourishment, was characterized by a significant - and steadily increasing - obesity rate.

China uses the WHO criteria to define adult nutritional status; BMI < 18.5 (independent of gender) means “chronic energy deficiency”; 18.5-25 is “normal”; >25 means “overweight” or “obese”.

BMI was found to be higher in the urban than in the rural population and - ceteris paribus - higher for high income groups than for low income groups. Generally, BMI was higher in females than males.

It was noted that the proportion of undernourished adults was higher in Southern than in Northern China; the proportion of obese adults follows a completely different geographical pattern (rates are highest in the Centre-north and Northeastern part of the country).

Nevertheless provincial profiles are a result of a more complex composition of undernourished, normal and obese population by gender. They are presented below and refer only to the rural population.



Clustering analysis has isolated the case of **Hainan as the worst**, in terms of nutritional status; the undernourishment rate was three times the national average and affected the female more than the male population (**Cluster A**).

A second, **critical pattern** was again found in the South: **Guangxi, Jiangxi and Fujian** provinces presented an average undernourishment level double that of the national average. Here too, women were more affected than men (**Cluster B**).

A still higher undernourishment level (around 30%) **characterized Guangdong, Guizhou, Yunnan, Hubei, Shaanxi and Qinghai** provinces. Nevertheless, due to a low level of obesity, the proportion of “normal” population slightly exceeded the national figures (**Cluster C**).

The cluster including **Zhejiang, Jiangsu, Henan, Hunan, Sichuan, Ningxia and Gansu** provinces is the best shaped, with the highest peak for “normal population” (**Cluster D**).

The **Xinjiang, Inner Mongolia, Heilongjiang, Hebei, Shanxi and Shandong** cluster started to show a **trend towards a more obese population**; although this has not yet reached a critical level. It is worth noting that female BMI>25 already exceeded the average national figure (17.3% against 12.7%) (**Cluster E**).

Of more concern, as **obesity** is related to the occurrence of chronic diseases, is the profile presented by **Jilin, Tianjin and Shandong**, where around 13% of males and 21% of females are obese (**Cluster F**).

Finally **Beijing** emerges poorly from this analysis and provides **a cause for concern**: the “National Nutritional Survey” estimated the obesity figures at 45.7% for females and 36% for males. The concern expressed in the summary of the National Nutritional Survey must be subscribed to: *“The appearance of obesity and some chronic diseases related to nutrition imbalance was spectacular” .... “The proportion of dietary energy from fat is close to the upper limit suggested by WHO”.*

## 12 - DIETARY PATTERNS

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The most recent ("National Nutritional Survey", 1992) available estimate of adult energy intake is 2328 Kcal per reference man per day.

**Differences between urban and rural environments** - referring to the national average - **are small** (less than 5%: 2395 Kcal in the urban environment against 2294 in the rural one). As this amount "*accounts for 99.8% and 95.0% of the RDA, respectively*" the official conclusion is that "*adequate food has been consumed by Chinese urban and rural residents*".

Average **protein intake** (68 grams per reference man per day) amounts to 90% of the RDA and shows a higher difference between rural and urban populations (more than 17%).

The **fat** intake shows a dichotomy between rural and urban patterns. Urban consumption is 60% more than rural consumption (77.7 grams compared with 48.3 grams). As the lower fat intake in rural areas does not cause - according to the quoted source - fat deficiency problems, we begin to see the other side of the coin: "*the appearance of obesity and some chronic diseases related to nutrition imbalance [is] spectacular....The prevalence of overweight among young adults in Beijing [is] more than 30%. The proportion of dietary energy from fat is close to the upper limit suggested by WHO*".

China is **still dependent on cereals for energy intake** (66.8% is generated by cereals). The energy contribution made by cereals is significantly lower (57.4%) in the urban environment than in rural areas (71.7%). An important decrease in the proportion of energy intake from cereals when incomes have increased has been observed.

The growth of the market economy is speeding up dietary differentiation between rural and urban areas. As has already been noted, "*the speed of development in rural areas was not as fast as that in urban areas*" (NNS, 1992, p. 100). **The gap between urban and rural areas is growing.**

**Energy** derived from animal food amounts to 9.3%; and here the rural-urban gap is wide (6.2% is the rural figure, 15.2% the urban one).

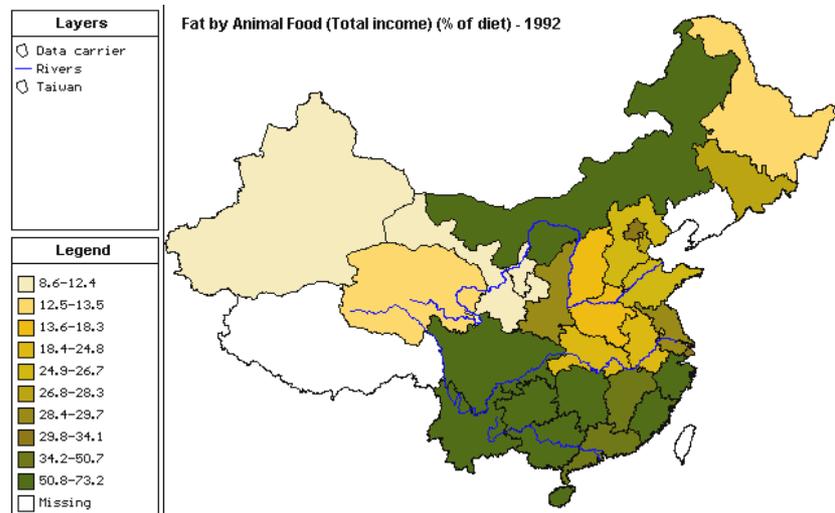
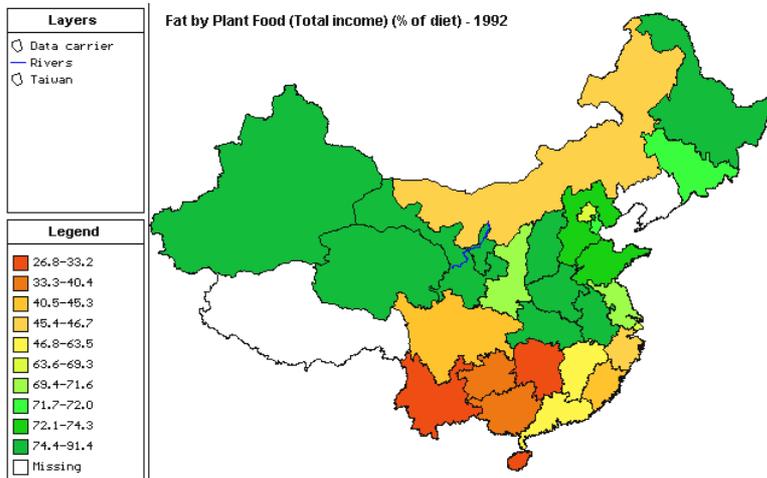
**Proteins** are still derived prevalently from cereals (more than 50-60%) followed by animals (20-30%) and legumes (only 5-6%).

**Fat** provides 22% of energy intake (28% in urban areas, 18% in rural ones).

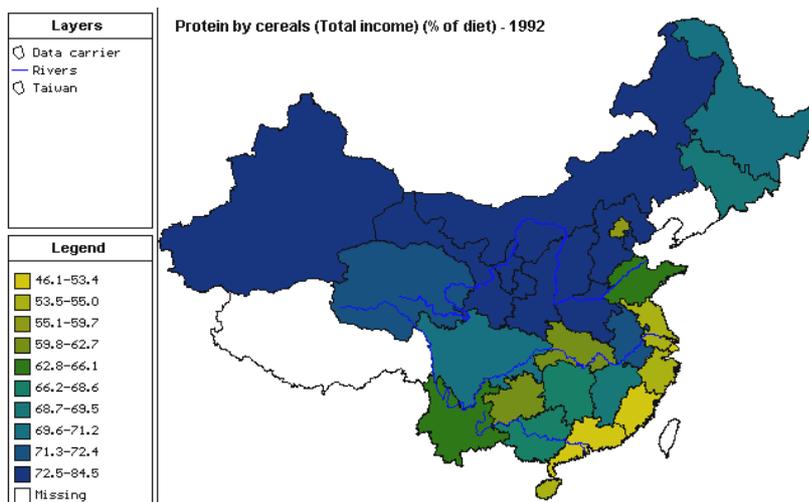
The above summary data hide the complexity of provincial/local dietary strategies. Strategies are partially dictated by environmental conditions and partially affected by the well known diet inertia effect (palate tastes change slower than economic and political systems !).

A glance at the five maps extracted from the "**China Province Reference Database for Vulnerability Analysis**" distributed as an Annex to this report, reminds us that China can be roughly split in latitudinal bands according to the prevalent source from which fats are

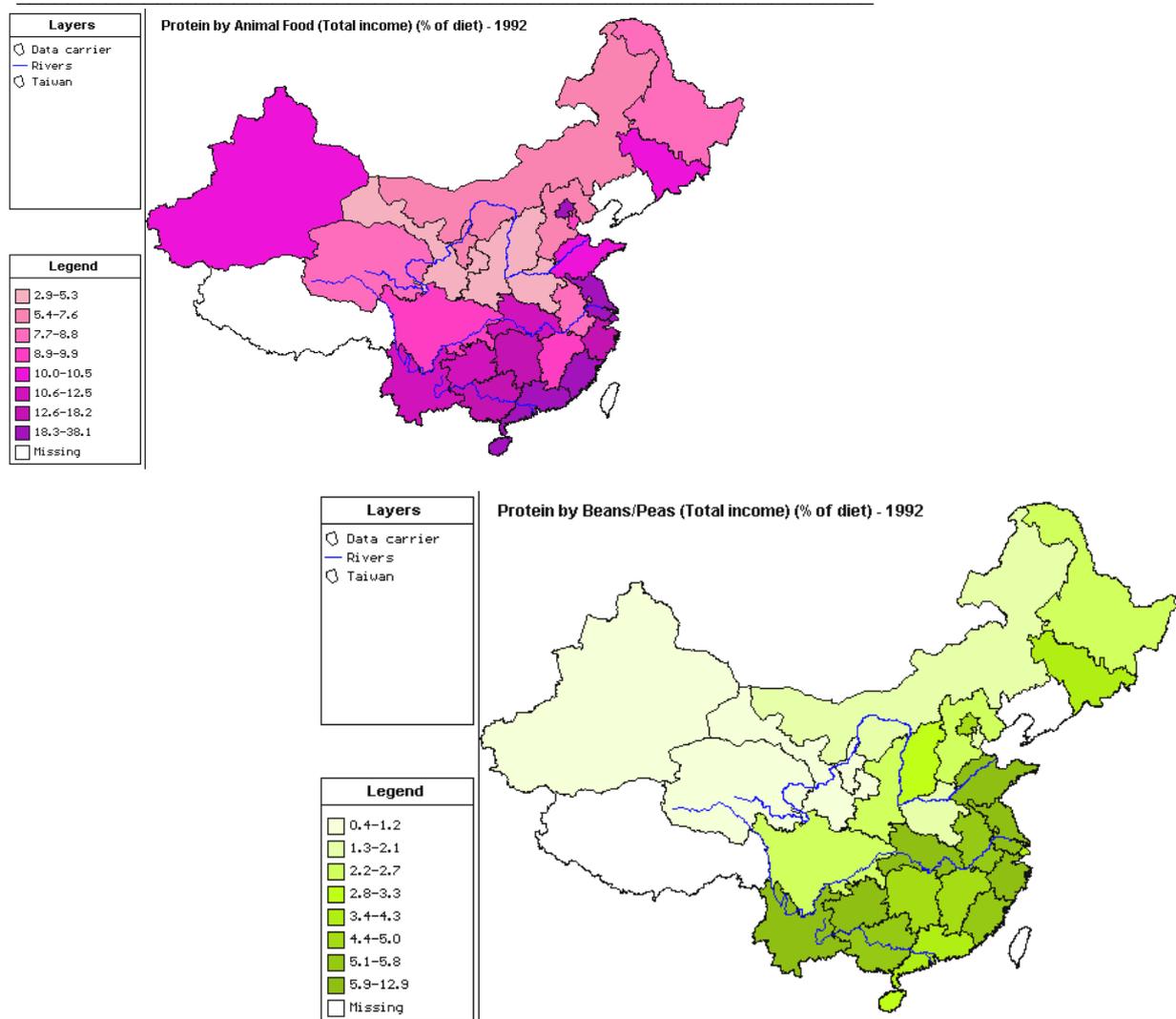
derived (either from animals or from plants), and in three areas according to the prevalent source of proteins.



While the areas that depend on cereals for their protein are rather separate from the others and located at higher latitude, areas where animal food and legumes provide significant amounts of protein tend to intersect.



Nevertheless provinces bordering on the East and South China Sea coasts are more acquainted with the consumption of animal proteins, while in the internal areas of the South the contribution of proteins from legumes is important.



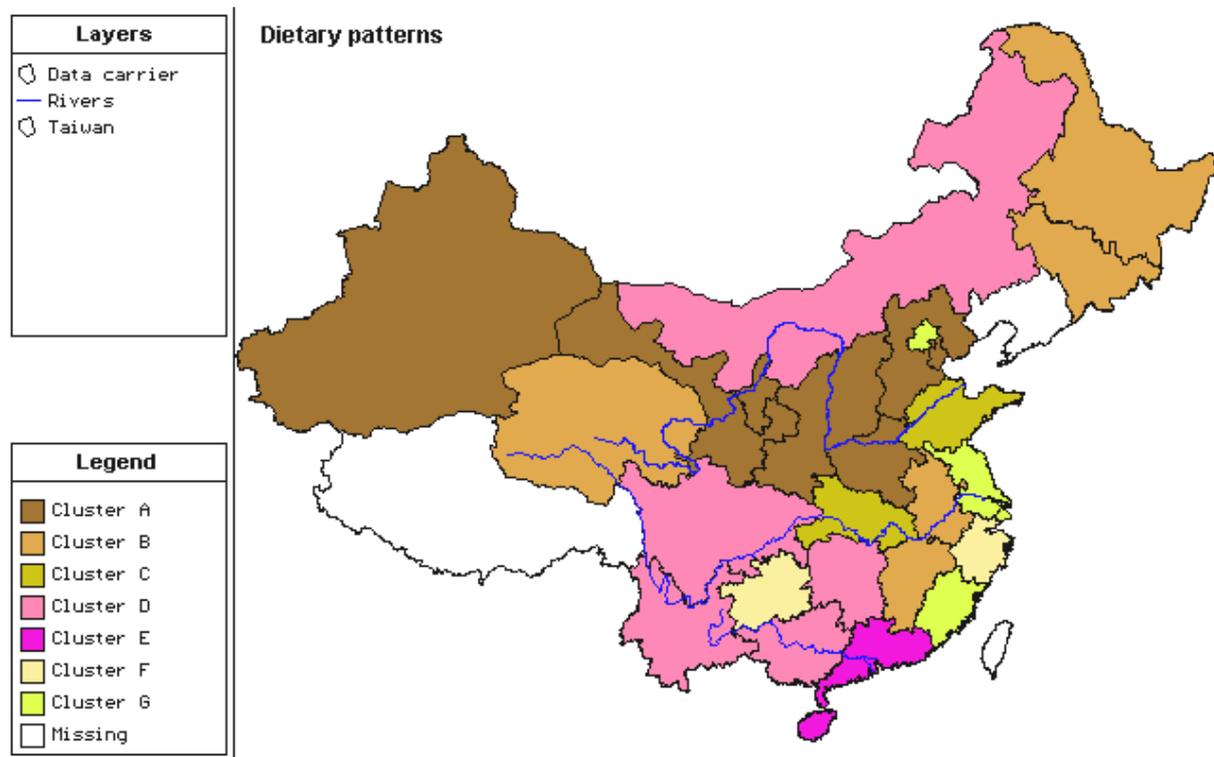
From the above maps the linearity and the complexity of local dietary patterns emerge.

In order to identify these patterns, although in a rather rough way, an analysis has been carried out that simultaneously takes into account the following dietary components:

- energy intake from cereals
- protein intake from cereals
- protein intake from beans and peas
- protein intake from animal food
- fat intake from animal food
- fat intake from plants

Each of the intakes was processed disaggregated by three income levels (low, middle and high, as provided by the NNS, 1992).

Seven provincial clusters emerge. Each of them represents a different dietary pattern, implying different dietary strategies.



A large band, crossing China from East to West, from **Hebei, Henan** provinces to **Xinjiang** province through **Shanxi, Shaanxi, Ningxia and Gansu**, is characterized by a **rigid, mono-component diet**. Energy derived from cereals is very high, approximately 80% for low income rural households. As a consequence more than 80% of proteins are derived from **cereals**, implying a very low animal and plant protein component. Up to 86% of fats comes from plants (**Cluster A**).

A rather similar pattern, although less rigid, can be found in the contiguous **Qinghai, Anhui, Jiangxi** provinces and in the North-east (**Heilongjiang and Jilin**) (**Cluster B**).

Only a greater contribution to protein intake from beans and peas creates a difference between the above areas and the **Hubei and Shandong** provinces, confirming the spatial hub of the **cereals energy and plant-crop-fat-dependent regions (Cluster C)**.

A rather different pattern, both in terms of diet composition and spatial location, can be seen in the profiles of the provinces surrounding the central hub.

**Sichuan, Yunnan, Hunan and Guangxi** in the South and **Inner Mongolia** in the North are still **heavily energy dependent on cereals**, but the **animal fat contribution** reaches the highest Chinese levels (up to 68% in the case of the high income household group) (**Cluster D**).

A pattern that is distinctly different is shown by the two most southern provinces (**Guangdong and Hainan**), where the energy contribution provided by cereals is low. This shift towards a **high animal food intake** is confirmed by the fact that the animal protein intake component reaches the highest level in China, equal to 41% (again, for the high

income household group) and the animal fat component is double the national average (**Cluster E**).

A more balanced protein source pattern characterizes two provinces (**Zhejiang and Guizhou**), which differ from the previous ones in that they have a slightly **lower non-cereal protein** component, but where, along with the other **protein sources** an important role is played **by legumes (Cluster F)**.

Finally an intermediate pattern, vis-a-vis the Chinese spatial dichotomy “food plant fats <--> animal fats”, emerges in some coastal provinces (**Jiangsu and Fujian**) and in the rural areas of **Beijing and Shanghai**. Here fat sources are **more balanced**. A similar **more composite pattern** is also shown by the protein sources component (**Cluster G**).



## 13 - ANAEMIA PATTERNS

The “China National Nutrition Survey” (1992, p. 96) has pointed out that in China “the apparent iron intake is adequate, however, iron and iron deficiency anaemia are the most common nutritional deficiency problems, particularly of women and children”.

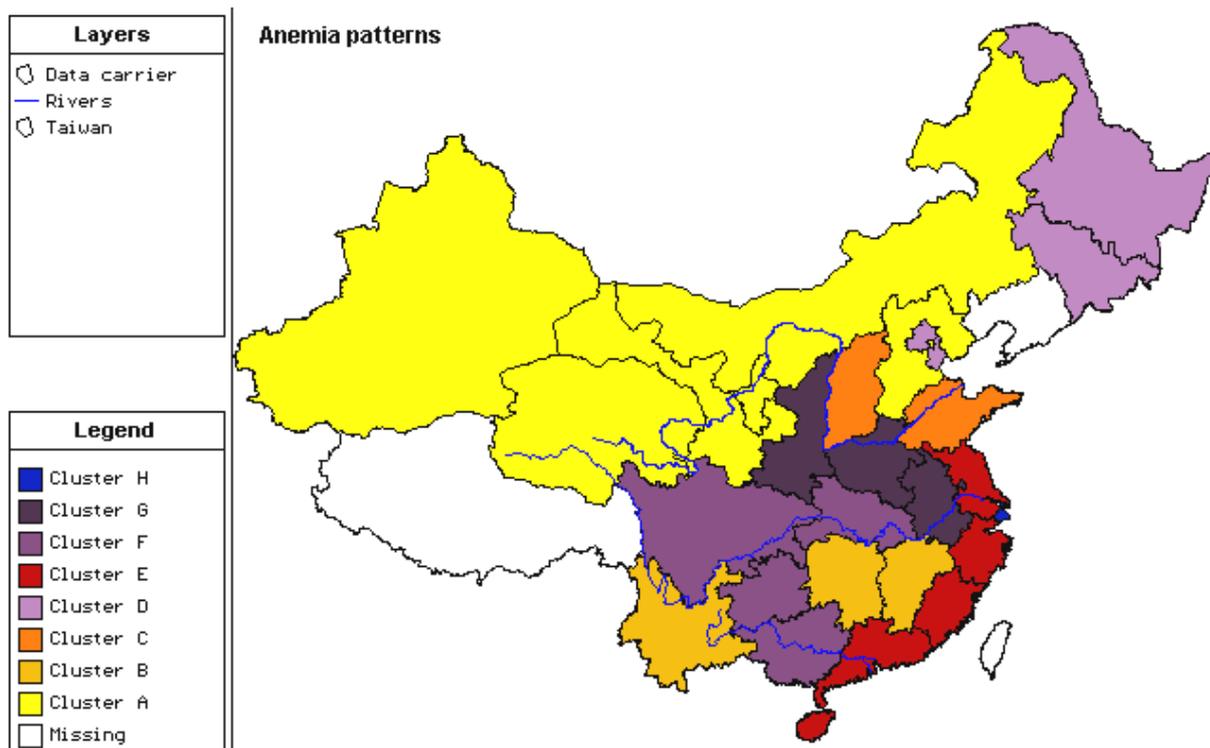
In China nearly 20% of adults are anaemic, but “female adult national anaemia prevalence” means that the female figure (22.7%) is nearly double that for males (14.6%).

Data disaggregated by rural and urban environment confirms this finding; however the rural environment appears less gender characterized (21.6% against 14.9%) than the urban one (24.7% against 13.9%).

Anaemia rates in children are not much lower than in adults. An important difference in the rates for children aged 0-6 and those aged 7-14 is emerging. The younger group shows a significantly lower rate (14.8% compared with 17.2%).

As observed by the NNS, “Because the absorption of iron from plant food is poor, the amount of absorbed iron does not satisfy the requirement of the body” (page 96). Provincial data (referring to rural areas) does not show a significant negative correlation between anaemia incidence and iron intake. The lack of a negative correlation could partly be explained by data that is too aggregated and poor sample dimension.

As the iron intake process is only partially reflected by the “intake variable” provided by the Survey, an anaemia multifactorial analysis has been carried out. Several important dietary components (animal protein, egg and dark-coloured vegetable intake) were included in the analysis. It was not possible to include cereals because of a lack of information. Nevertheless the results, summarized below, shed light on a complex situation.



In general we can say that the extent to which populations in different parts of China are affected by anaemia is related to traditional diet composition patterns and the types of food available.

The **Northwestern part** of the country (including **Inner Mongolia**) is the **least anaemia-affected** area of China; the extremely low rates of anaemia (5%) seem to be related to a direct iron intake detected by the Survey (**Cluster A**).

In the southern part of China three provinces (**Jiangxi, Hunan and Yunnan**) present a similar pattern, but in this case a dark leaves intake is more important in the anaemia security strategy (**Cluster B**).

**North and North-east areas** present a national average situation: in both cases egg consumption (when compared with other parts of the country) is an important part of the security strategy (**Cluster C**).

**Shanxi and Shandong** provinces belong to a separate cluster, rather similar to the previous one, but national average anaemia rates are accompanied by a high iron intake, which is probably not sufficiently absorbed (**Cluster D**).

The provinces bordering the East and South China **Seas (Hainan, Guangdong, Fujian, Zhejiang and Jiangsu)** show significant anaemia rates, but many coping mechanisms have been developed, including high animal protein consumption and a more frequent intake of dark leaves (**Cluster E**).

The core area of **Anhui, Henan and Shaanxi** provinces, on the other hand, is affected by an **extremely high anaemia rate** (one female in three) in spite of a high iron intake (**Cluster G**). Egg consumption is far below the national average.

**Shanghai** province, according to the Survey data, seems an extreme, isolated case. It is strongly affected by anaemia. Intake of iron and dark leaves is low, but animal protein and egg intake is particularly high (**Cluster H**).

Some of the Yangtze River Basin and the Pearl River provinces, including the four provinces of **Hubei, Sichuan, Guizhou and Guangxi**, present a **high anaemia rate**, similar to cluster G. Here, too, iron intake is low. Nevertheless dark leaves consumption is high compared with the national average (**Cluster F**).

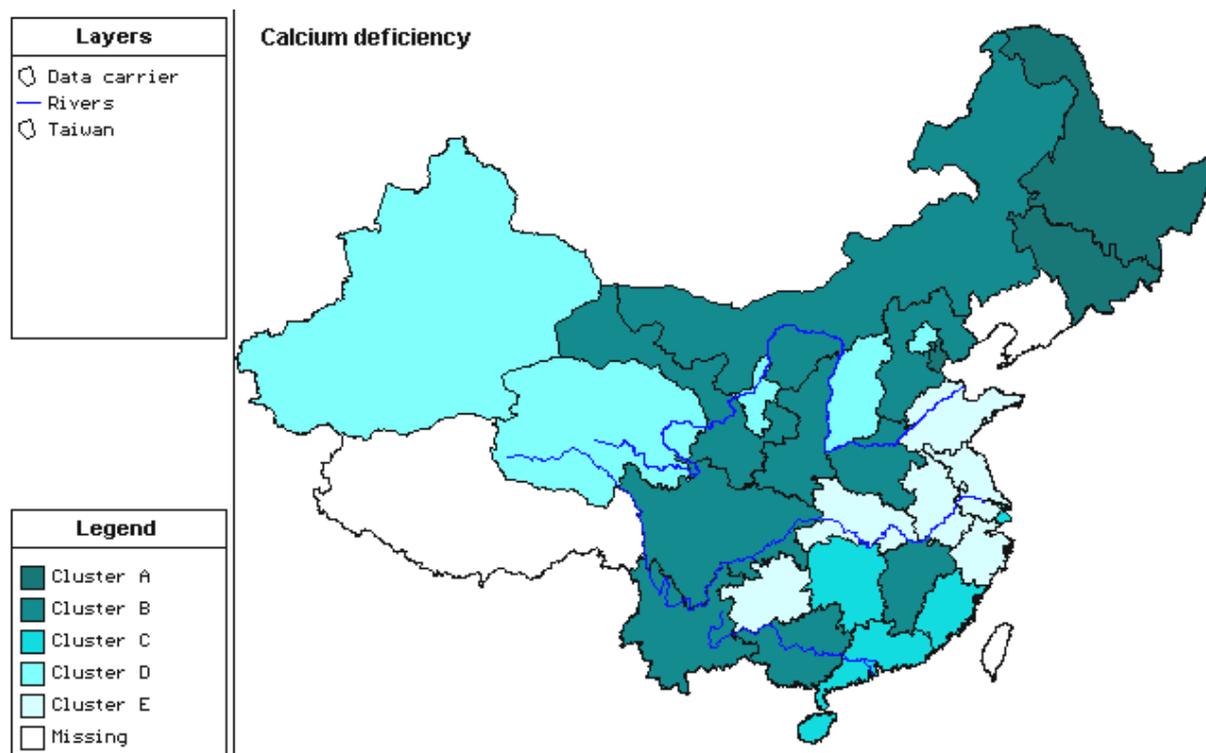
## 14 - CALCIUM DEFICIENCY

*“A deficiency of calcium is rather common, and the intake of calcium accounted for only 50% of the RDA....Rickets is relatively common in Chinese children. The high incidence of osteoporosis among elderly women is also related to an inadequate intake of calcium.”* As stated in the NNS, 1992 (p. 96), *“milk is the best source of calcium; it is important to advocate increased consumption of fresh milk and dairy products to improve nutrition”*.

Although **milk and dairy product consumption is rather low in China** (just 16 g/reference man/day), a strong difference exists between urban (36.1 g/r.m./day) and rural (3.8 g/r.m./day) levels of consumption. Not surprisingly this consumption shows a very high income elasticity. At national level a shift from low income to high income households means to move from 6.1 g/r.m./day to 27.3 g/r.m./day. The difference in consumption of these products between the rural low income level and the urban high income level is tremendous: 2.4 g/r.m./day for the former compared with 51.2 g/r.m./day for the latter.

However milk is not the only source of calcium. In other parts of the world populations follow other nutritional paths. In China too, local conditions and local food lack/availability strongly determine the food strategy to cope with such a primary need. The calcium deficiencies quoted hide significant provincial differences, both in terms of calcium deficiency level and in the components of such a deficiency.

An analysis carried out took into consideration, besides the calcium intake, some relevant dietary components: milk products, fish and shellfish, eggs, and bean and pea proteins.(the choice was dictated by a limited number of significant items). This has allowed a meaningful mosaic to be built, offering a rapid understanding of local strategies and needs.



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The most vulnerable part of China is the **North-east**, where a **very low calcium intake** corresponds not only with a lower milk product intake but is worsened by low intake of legume proteins (**Cluster A**).

The central vertical band of China running from **Inner Mongolia to Yunnan** through **Shaanxi and Sichuan** presents **similar characteristics**. The dietary profile is very poor in terms of calcium contribution (consumption of fish and eggs is particularly low) (**Cluster B**).

The provinces grouped round the **Yangtze River** are characterized by a **good calcium component** profile, and in particular the inclusion of fish and eggs in the diet provides an important contribution to calcium intake (**Cluster E**).

Fish consumption positively affects the situation of several provinces bordering on **the South China Sea Coast**, where **calcium intake reaches the national average** (**Cluster C**).

Only in the West (**Xinjiang and Qinghai**) and in a few pockets such as **Ningxia and Shanxi**, does the consumption of **milk and dairy products improve calcium intake** (**Cluster D**).

**Beijing** province profits from its higher rural income and consequently belongs to the group of milk-consuming provinces.

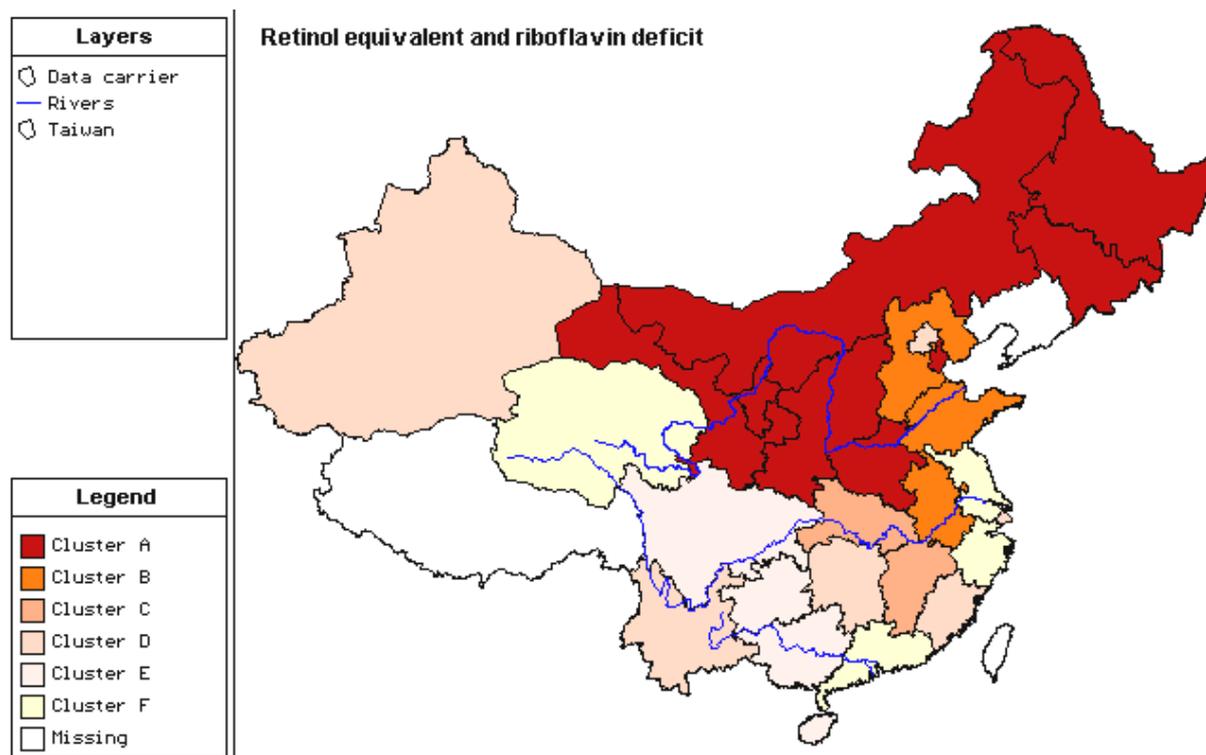
## 15 - RETINOL EQUIVALENT AND RIBOFLAVIN DEFICIT

The “National Nutritional Survey” noted, in 1992, that the **intake of retinol equivalent** in China was low (476 micrograms), with the rural figure lagging significantly behind the urban figure (406 micrograms compared with 605 micrograms).

Riboflavin intake too was lower (0.8 mg) than the recommended standard. Here the rural-urban dichotomy was less marked (0.7 mg in rural areas against 0.9 mg in urban ones).

As usual national figures hide significant provincial differences, and intake of retinol equivalent and riboflavin deficiency/sufficiency do not necessarily go together.

The map below classifies Chinese provinces according to four sets of data: the retinol intake (vitamin A) from animal sources; the retinol equivalent, which includes “carotene” (pre-vitamin A) principally found in certain “yellow” vegetables and fruits (and converted into retinol by the organism); the riboflavin intake; and intake of animal organ meat (which includes liver).



**North-east China and the oriental part of the North-west are seriously affected by a lack of both vitamin B2 and vitamin A.** In rural areas retinol equivalent intake is half the national average (213 micrograms). Organ meat consumption is one-third of the national level (**Cluster A**).

A similar, but less severe, profile characterizes **Hebei, Shandong and Anhui** provinces, confirming the geographically based incidence of both deficiencies (**Cluster B**).

**Hubei** and **Jiangxi** provinces have a similar, though slightly better, pattern as the carotene component reaches the national average, while the riboflavin and organ meat contributions are still below the national average (**Cluster C**).

**Yunnan, Xinjiang, Fujian** and **Hunan** provinces show an average profile (**Cluster D**). **Shanghai** and **Beijing** provinces too belong to this cluster.

An even better profile characterizes the internal band between the South and the South-west (including **Hainan, Guangxi, Guizhou and Sichuan**): riboflavin intake is low but accompanied by high organ meat consumption (**Cluster E**).

Finally, some of the East China Sea coast provinces (**Jiangsu** and **Zhejiang**) show the **best conditions**. Vitamin A intake approaches the international standard; vitamin B2 intake is boosted by a high consumption of animal organ meat (**Cluster F**).



# Vulnerability



## WHY A VULNERABILITY ANALYSIS?

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Vulnerability concerns the propensity of groups of people *to experience changes* as a result of a hazard such as flood, drought, conflict, earthquake, etc.

Vulnerability represents not simply “*defencelessness, insecurity and exposure to risks, shocks and stress*” but also “*difficulty in coping with them*”, as Chambers wrote ten years ago.

Nevertheless the concepts of vulnerability and poverty are still confused; or better, and more frequently, the differences between them are blurred.

Areas or groups of people can be poor but not necessarily vulnerable, and vice versa.

Poor groups have frequently developed “adequate” coping mechanisms. On the other hand groups that are not normally poor can seldom develop such mechanisms quickly, when and if necessary. Consequently they are, to a certain extent, more vulnerable.

Vulnerability can thus be viewed as follows:

<b>Vulnerability = Exposure to Risk + Inability to Cope</b>
---

According to this definition acute fluctuations in consumption are the primary concern in vulnerability analysis, as they result from an inability to cope with the variety of risks that may affect households' access to food.

Fluctuations in food consumption levels are primarily determined by changes in home production of food commodities and variability of cash incomes from a variety of sources combined with fluctuations in the prices of primary goods. It is obvious that, *ceteris paribus*, households relying only on a single, very risky source of income, or on a range of income sources for which risk is highly correlated, are likely to be highly vulnerable. Exposure to multiple risks (and their frequency, duration and intensity) are factors affecting the household's capacity to cope with future crises.

Understanding the critical interaction of risk and behaviour is important not only for food security but also for agricultural development planning. Identification of the way households behave under various conditions and of the constraints under which development operates can make a valuable contribution to better planning.

By identifying the most vulnerable regions within a country and the factors thought to contribute most to that vulnerability, it is possible to improve the targeting of early warning and preparedness programmes.

For this reason the “**China Preliminary Provincial Vulnerability Analysis**” focuses on the identification of the most vulnerable areas (which are not necessarily the poorest) and the causes of their vulnerability.

The analysis guidelines make reference to the concept that a condition of vulnerability cannot be simply defined as a result of a concomitance of several risk factors. Only a more comprehensive analysis, which considers the socio-economic structure and its

ability to cope with risk factors, can provide a better understanding of the phenomenon, essential to the drafting of a food aid/security policy.

In China, because of the sheer size of the country, so many food supply and food access patterns and such differentiated socio-economic conditions, the resulting mosaic is rather complex.

As by definition *vulnerability is a result not only of exposure to risk but also of the population's inability to cope with those risks*, it is obvious that similar/different risks can impact with similar/different socio-economic conditions. The results are rather variegated and suggest ad hoc interventions and policies.

As a consequence of the above, it has been necessary to cluster the provinces of China according to types of vulnerability rather than simply range areas or population as more or less at risk.

From the beginning, the analysis was conceived not simply for ranking provinces according to their degree of vulnerability, but for clustering provinces according to similarities in their vulnerability profiles.

Part 2 matches the clustering results of both **process** and **outcome indicators** analysis, described in Part 1, with the aim of providing an overall vulnerability assessment at provincial level to identify **where** the vulnerable are located, **how** vulnerable they are and **why** they are vulnerable.

The results are presented in the following pages. Unfortunately the provincial level hides important infra-provincial differences. This obvious limit could be addressed by a more disaggregated, county-level, analysis.

## VULNERABILITY: PROVINCIAL PATTERNS

In order to cluster Chinese provinces according to vulnerability factors and to provide vulnerability profiles, the main results and findings of the analysis described in the Part 1 were merged.

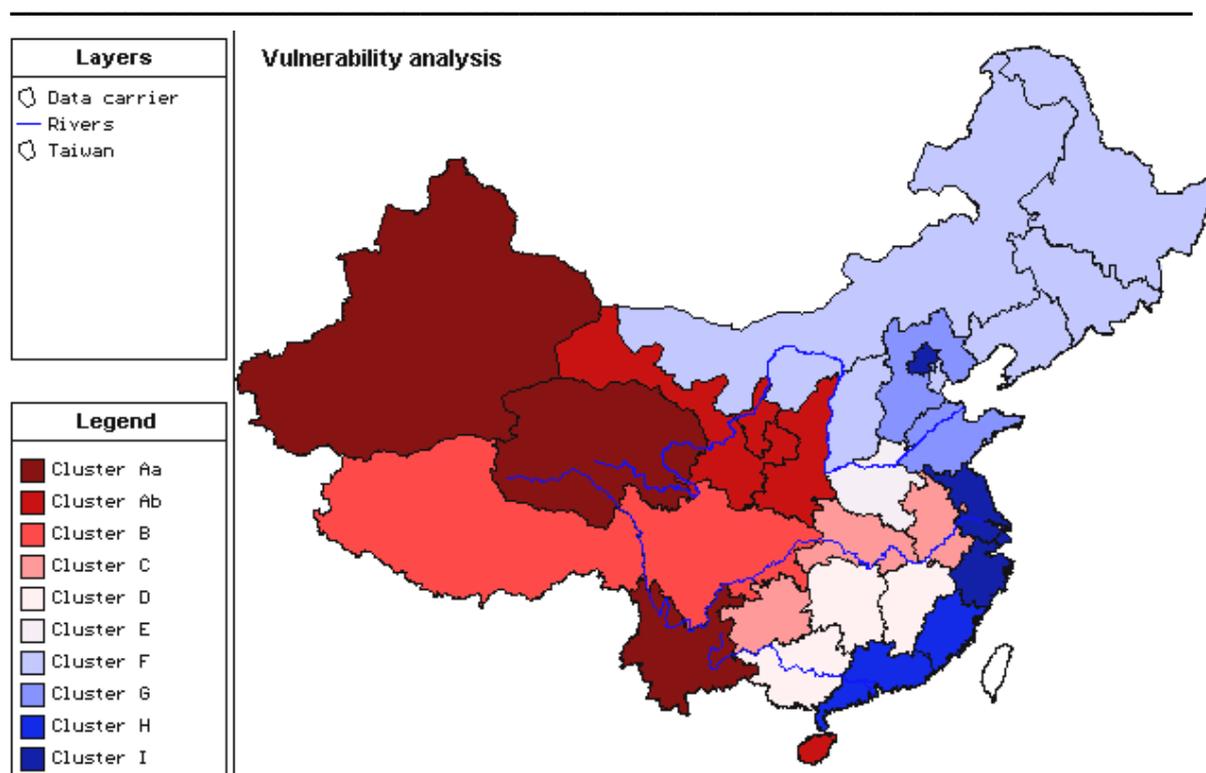
To do this another clustering procedure was carried out, carefully selecting and weighting the results of the previous analysis.

The results of the following pieces of analysis were processed as “active variables”:

- Disaster-prone areas
- Agricultural production and crop performance risks
- Availability of fixed assets
- Rural net income dynamics by component
- Price trends and rural/urban trend ratio
- Composition of rural household expenditure
- Ownership of durable consumer goods in rural areas
- Child malnutrition
- Adult undernourishment and obesity
- Anaemia patterns
- Calcium deficiency
- Retinol equivalent and riboflavin deficit

The outcomes of the other pieces of analysis were processed as “supplementary variables”, thus not affecting the computation results but providing some help in commenting on them.

The map below shows the ten clusters (eight clusters and two sub-clusters) obtained. The results, commented on in the following pages, are significant, although the kind of data available, and sometimes the lack of it, has limited their usefulness.

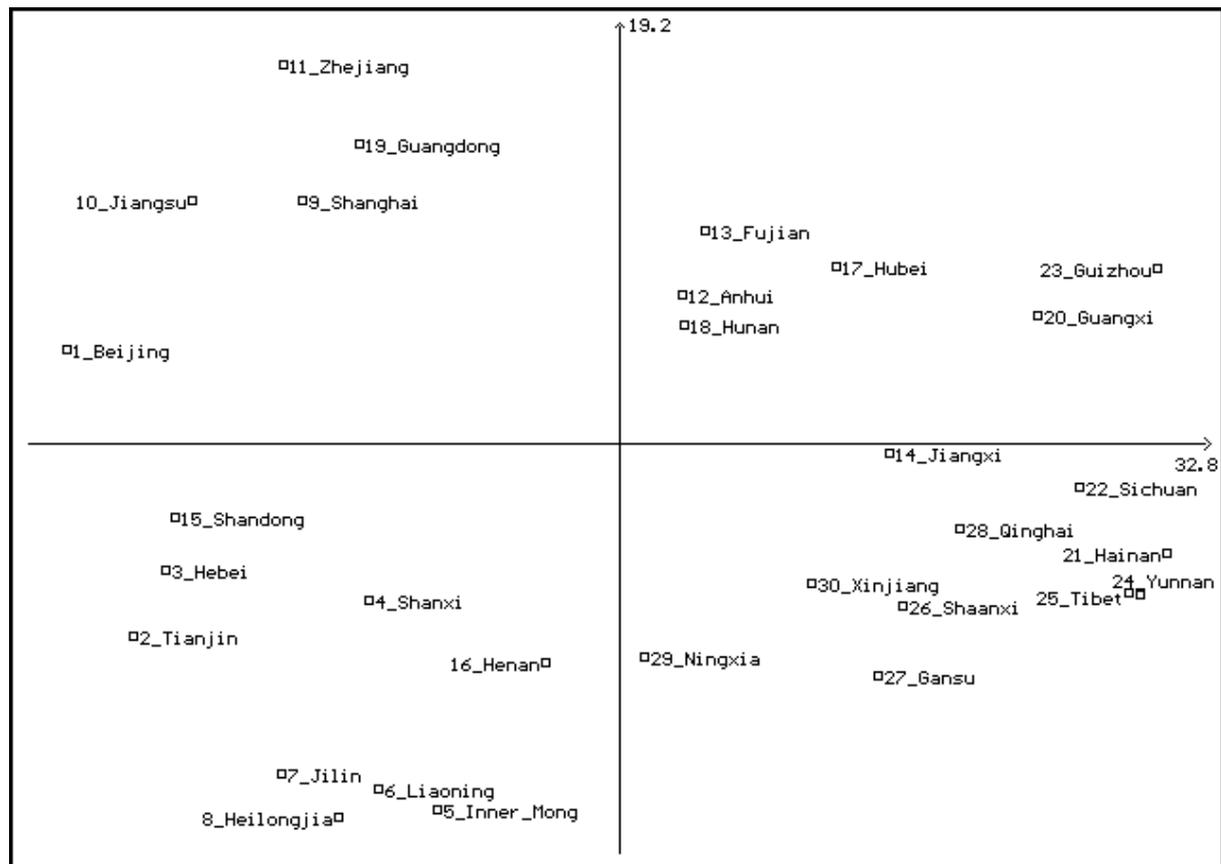


A glance at the map shows that what emerges is a **tri-polar system** in which the most vulnerable areas are located in the interior of the country, the least vulnerable on the coast, while the North-east is characterized by “in between” areas.

This tri-polarity is already evident in the projections of the provinces on the first two factor planes. The distribution of southwestern and western provinces is characterized by two types of opposition: the first, and most evident, is opposition vis-à-vis the coastal provinces (plus Beijing and Shanghai); the second is opposition vis-à-vis the northern parts of the country.

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### Projection of the provinces on the first two factor planes



The attention must be mainly focused on **clusters Aa, Ab, B and C**, identified on the map by warm colours.

**Cluster A** is divided into two sub-clusters:

**Yunnan, Qinghai and Xinjiang** provinces represent the most vulnerable area. This area seems critical both in terms of "process" indicators and "access, outcome" indicators. Child malnutrition reaches worrying levels and is accompanied by very high mortality rates. The cluster is characterized by very low income and expenditure levels. The situation is made worse by very slow growth in rural incomes combined with significant increases in food and clothing prices in rural areas. The rural population can count only on one source of income; coping mechanisms cannot be easily developed. **(Cluster Aa).**

**Hainan, Shaanxi, Ningxia and Gansu** provinces make up the next cluster. Conditions are still critical. In general, income - still low - has some differentiated source, but has grown slowly while prices in rural areas have grown faster. Health conditions are better, but the level of child malnutrition is still high. The provinces of this cluster are affected by high rates either of anaemia or retinol deficiency. We can expect that some forms of coping mechanisms could be developed (**Cluster Ab**).

The Southwestern provinces of **Sichuan** and **Tibet** follow. They are still characterized by a low income level and an equally low income growth rate. A peculiarity consists in the fact that availability of fixed assets, as well as consumable durable goods, is still extremely scarce, corresponding to a very poor expenditure pattern. Child malnutrition is accompanied by anaemia and calcium deficiency (**Cluster B**).

To complete the family of these vulnerable areas we have to include **Anhui, Hubei** and **Guizhou** provinces, representing the eastern cluster of vulnerability. This cluster is significantly affected by natural disasters. Fixed assets and expenditure levels are still low and income level is generally lower than the national average. Income sources are more differentiated but prices have increased strongly. Child malnutrition is still significant (**Cluster C**).

The other clusters are not as important for our “first appraisal” analysis. Nevertheless each of them shows in its profile features that should be given careful consideration in a more in-depth analysis.

**Cluster D** includes Jiangxi, Hunan and Guangxi provinces; **Cluster E** only Henan (it is unique); Tianjin, Shanxi, Inner Mongolia, Liaoning, Jilin and Heilongjiang provinces belong to **Cluster F**, Hebei and Shandong to **Cluster G**. Finally **Cluster H** includes Jiangsu, Zhejiang, Beijing and Shanghai provinces, while Fujian and Guangdong belong to **Cluster I**.

These results can be compared, at provincial level, with the frequency of the “poverty-stricken counties” included in the Poverty Alleviation Group (PAG) list.

Estimates can make reference to the number of counties and/or the population of counties. Counties may be less or more populated and it is not necessarily true that in each county the poverty-stricken population corresponds to its entire population.

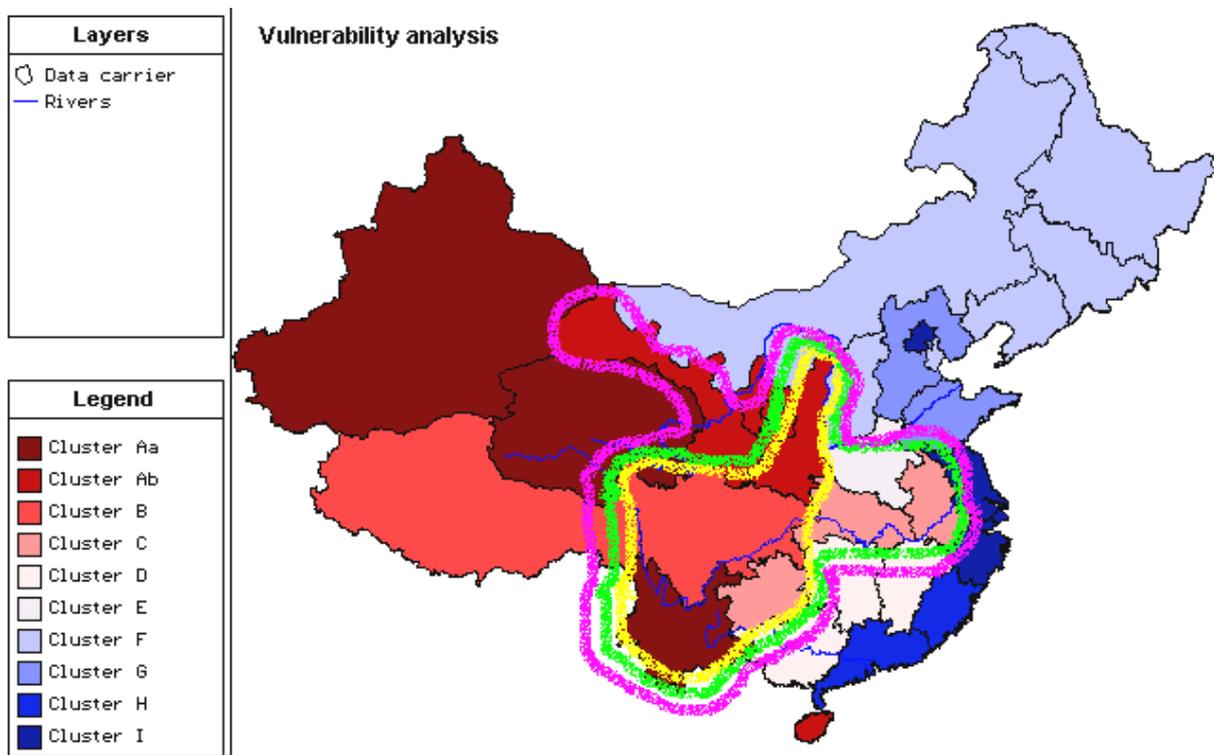
Nevertheless, assuming the same provincial ratio of poor population, we can say that, in terms of population:

- four provinces contain more than one-third of the “poverty-stricken counties” population;
- seven provinces contain more than half of the “poverty-stricken counties” population; and
- eight provinces contain slightly less than two-thirds of the “poverty-stricken counties” population.

In the map below the above groups of provinces have been identified by using different colours to encircle them: yellow for the four core provinces, green for the group of seven provinces and purple for the largest group (which includes two-thirds of the “poverty stricken population”).

It is worth noting that Hubei province is not included in our “warm clusters” as the clustering procedure provided rather different results.

**A comparison between our clustering results and frequency of “poverty-stricken counties”  
(in terms of population – see text)**



As the criteria defining “poverty-stricken” refer, for the most part, to “process indicators” (see next chapter) and our criteria were more oriented (although limited by the type and availability of data) to “access and outcome indicators”, it is important to focus on the main discrepancies. However, we must not forget that several discrepancies could be a result, at least in part, of the fact that our analysis was “rural population weighted” and statistics from PAG make reference to county frequency by province only.

## **As a general conclusion**

China is a continent, consequently not too much can be expected from the use, although sophisticated, of a set of provincial indicators, because the level of aggregation is too high.

The analysis partly confirms the results of previous analysis and partly denies them. In particular:

**The South-west and part of the West** are still affected by a rather composite vulnerability pattern that requires particular attention and specific food policy strategies. Not only **Yunnan, Qinghai** and **Xinjiang** but also **Hainan, Shaanxi, Ningxia and Gansu** must be included in any target list of provinces.

**Sichuan** and **Tibet** also need special attention.

Crop composition and dietary patterns frequently dictate particular vulnerability profiles in several parts of China, especially in the northern areas, including the **North-east**.

There are still significant pockets of vulnerability in **Anhui, Hubei** and **Guizhou** provinces. A more detailed and local understanding is necessary before any kind of intervention, so that clear objectives can be developed for appropriate areas.

Finally the **Coastal areas**, in spite of higher living standards, are still characterized by several pockets of vulnerability that probably require more attention, avoiding easy optimism based on the assumption that development will soon spread to these areas from neighbouring ones



**CHINA - A PRELIMINARY PROVINCIAL VULNERABILITY ANALYSIS**



**Towards a county-level  
vulnerability analysis**



## POVERTY-STRICKEN COUNTIES

According to the *National 8.7 Poverty Alleviation Plan (1994-2000)*, 80 million rural Chinese people are still poor.

“The State Council decided to concentrate manpower, material and financial resources, and to mobilize forces from all walks of life between 1994 and 2000 in an effort to solve the subsistence problems of these 80 million needy people in rural areas throughout the country within seven years....Even though the needy [people] number[ed in 1994?] only 7.87 percent of the country’s rural population”, *they live in counties* “located deep in mountain areas, rocky mountain areas, desert areas, high and frigid mountain areas, loess highland areas....They share in common remoteness, poor production and living conditions”.

The “*solution*”, frequently translated into English as “*improvement*”, implies the “*improvement of the subsistence of the needy by the end of the present century*”.

The National 8.7 Poverty Alleviation Plan indicates as one of its “combat objectives” the following: “*to enable an overwhelming majority of impoverished households to have a net per capita income of 500 yuan or more calculated at constant 1990 prices*”.

An official document lists 592 [rural] “poverty-stricken” counties. Although these counties belong to 27 provinces (the only provinces not included, significantly, are Beijing, Tianjin and Shanghai), the spatial distribution is rather unequal.

Codes	Provinces	Number of Counties	Frequency of counties	Frequency of poverty-stricken population*	Frequency of poverty-stricken population* in each province
1	11 Beijing	0	0.0	0.0	0.0
2	12 Tianjin	0	0.0	0.0	0.0
3	13 Hebei	39	6.6	6.2	22.0
4	14 Shanxi	35	5.9	3.1	25.6
5	15 Inner Mongolia	31	5.2	3.3	44.2
6	21 Liaoning	9	1.5	1.7	14.5
7	22 Jilin	5	0.8	0.7	9.1
8	23 Heilongjiang	11	1.9	1.2	12.1
9	31 Shanghai	0	0.0	0.0	0.0
10	32 Jiangsu	0	0.0	0.0	0.0
11	33 Zhejiang	3	0.5	0.4	2.3
12	34 Anhui	17	2.9	8.1	30.9
13	35 Fujian	8	1.4	1.1	8.0
14	36 Jiangxi	18	3.0	3.9	23.2
15	37 Shandong	10	1.7	3.5	9.4
16	41 Henan	28	4.7	8.7	21.3
17	42 Hubei	25	4.2	5.4	25.0
18	43 Hunan	10	1.7	3.2	11.5
19	44 Guangdong	3	0.5	0.4	1.5
20	45 Guangxi	28	4.7	4.3	20.9
21	46 Hainan	5	0.8	0.3	13.7
22	51 Sichuan	43	7.3	9.1	18.4
23	52 Guizhou	48	8.1	8.5	54.7
24	53 Yunnan	73	12.3	10.6	60.0
25	54 Tibet	5	0.8	0.1	10.4
26	61 Shaanxi	50	8.4	6.4	44.2
27	62 Gansu	41	6.9	6.2	60.6
28	63 Qinghai	14	2.4	0.7	43.4
29	64 Ningxia	8	1.4	1.1	56.6
30	65 Xinjiang	25	4.2	1.5	31.8
	National	592		100.0	

\* Data refer only to county total rural population (see Part 2)

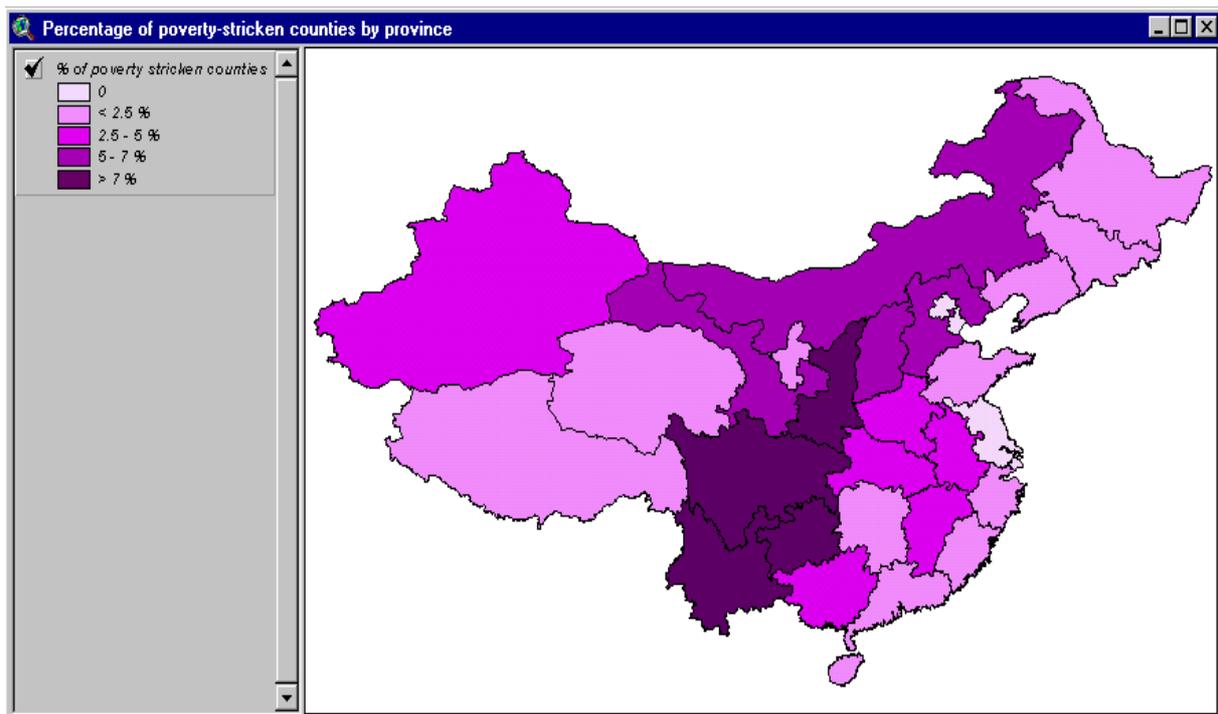
列入《国家八七扶贫攻坚计划》的 592 个贫困县

省、区	贫困县数	县(市、旗、区)名
河北	39	青龙、魏县、献县、广宗、武强、涉县、涞源、蔚县、崇礼、万全、康保、尚义、张北、沽源、赞皇、临城、巨鹿、广平、灵寿、完县、平山、阜平、丰宁、围场、平泉、隆化、滦平、宽城、赤城、怀安、阳原、东光、南皮、孟村、易县、大名、海兴、盐山、武邑、(涿鹿县赵家沟区)
山西	35	右玉、苛岚、静乐、河曲、五寨、保德、岚县、榆社、柳林、方山、广灵、天镇、平陆、偏关、娄烦、中阳、沁源、五台、石楼、神池、临县、沁县、平顺、兴县、武乡、大宁、永和、灵丘、万荣、阳高、夏县、闻喜、离石、垣曲、繁峙
内蒙古	31	托克托、清水河、准格尔、奈曼、敖汉、乌审、武川、化德、商都、达茂、固阳、宁城、察右中、多伦、林西、伊金霍洛、杭锦、鄂托克前、巴林左、巴林右、克什克腾、察右前、和林、太仆寺、扎赉特、喀喇沁、库伦、察右后、四子王、科右中、翁牛特
辽宁	9	朝阳、建昌、建平、新宾、义县、喀左、康平、岫岩、桓仁
吉林	5	汪清、镇赉、大安、通榆、靖宇
黑龙江	11	明水、林甸、青冈、延寿、泰来、甘南、克东、抚远、同江、杜尔伯特、桦南
浙江	3	文成、泰顺、景宁
安徽	17	金寨、霍山、岳西、颍上、潜山、太湖、寿县、临泉、阜南、宿松、枞阳、舒城、利辛、无为、长丰、霍邱、六安
福建	8	寿宁、屏南、柘荣、长汀、周宁、武平、连城、上杭
江西	18	兴国、寻乌、会昌、于都、广昌、余干、宁冈、赣峰、遂川、修水、宁都、上犹、赣县、上饶、波阳、永新、莲花、安远
山东	10	沂南、平邑、沂水、蒙阴、费县、泗水、沾化、庆云、冠县、莘县
河南	28	平舆、台前、新蔡、新县、商城、信阳、罗山、淮滨、宁陵、鲁山、睢县、虞城、伊川、上蔡、南召、确山、宜阳、洛宁、固始、卢氏、栾川、嵩县、浙川、光山、桐柏、汝阳、新安、浉池
湖北	25	英山、红安、麻城、罗田、大悟、郧县、郧西、竹溪、来凤、恩施、阳新、秭归、蕲春、孝昌、长阳、建始、鹤峰、利川、咸丰、宣恩、巴东、房县、神农架林区、丹江口市
湖南	10	永顺、保靖、平江、桑植、新化、沅陵、花垣、安化、隆回、新田
广东	3	陆河、乳源、阳山
广西	28	乐业、德保、那坡、凌云、巴马、龙州、平果、大化、马山、田林、忻城、隆安、田东、融水、南丹、三江、金秀、环江、东兰、西林、天等、都安、隆林、天峨、龙胜、罗城、靖西、凤山
海南	5	通什、陵水、保亭、琼中、屯昌
四川	43	酉阳、石柱、黔江、彭水、仪陇、阆中、渠县、雷波、普格、木里、喜德、古蔺、忠县、盐源、叙水、巫溪、黑水、苍溪、南部、广安、城口、旺苍、通江、南江、秀山、云阳、兴文、得荣、壤塘、武隆、巴塘、乡城、越西、宜汉、白玉、布拖、金阳、昭觉、美姑、朝天区、天城区、五桥区、嘉陵区
贵州	48	从江、纳雍、沿河、织金、六枝、大方、务川、赫章、盘县、雷山、台江、丹寨、荔波、独山、息峰、天柱、习水、正安、普安、水城、兴仁、威宁、黄平、关岭、三都、印江、普定、德江、册亨、晴隆、贞丰、麻江、榕江、石阡、三穗、岑巩、罗甸、紫云、剑河、望谟、松桃、长顺、镇宁、施秉、平塘、凤冈、安龙、黎平
云南	73	镇雄、彝良、巧家、禄劝、红河、西盟、墨江、鲁甸、永善、会泽、寻甸、龙陵、云龙、剑川、镇沅、孟连、中甸、泸水、绿春、元阳、福贡、西畴、富宁、武定、贡山、双柏、云县、镇康、马关、永仁、盐津、金平、富源、腾冲、泸水、临沧、德钦、维西、宁蒗、江城、屏边、澜沧、南涧、大关、丘北、绥江、南华、砚山、大姚、弥渡、昭通、施甸、东川市辖区、广南、澜沧、双江、沧源、麻栗坡、巍山、祥云、永平、牟定、永德、凤庆、姚安、石屏、威信、景东、宾川、洱源、文山、昌宁、兰坪
西藏	5	察雅、嘉黎、察县、南木林、定日
陕西	50	清涧、府谷、紫阳、吴堡、丹凤、镇安、蓝田、宁强、西乡、绥德、镇坪、延川、洛南、宜君、长武、合阳、略阳、延安、延长、神木、安塞、子长、白河、岚皋、镇巴、旬邑、永寿、安康、铜川市郊区、宁陕、山阳、镇巴、榆林、商南、麟游、佳县、定边、汉阴、柞水、淳化、米脂、彬县、志丹、横山、商州、子州、吴旗、靖边、宜川
甘肃	41	宕昌、武都、舟曲、岷县、礼县、庆阳、陇西、渭源、西河、文县、甘谷、武山、清水、和政、静宁、平川区、东乡、积石山、张家川、卓尼、漳县、靖远、永登、临夏、临潭、康乐、天祝、广河、康县、景泰、榆中、定西、临洮、庄浪、秦安、通渭、水靖、会宁、华池、环县、古浪
青海	14	化隆、循化、同仁、班玛、囊谦、民和、大通、达日、治多、平安、湟源、泽库、玉树、杂多
宁夏	8	西吉、固原、海原、同心、隆德、泾源、盐池、彭阳
新疆	25	柯坪、疏附、皮山、墨玉、托里、木垒、策勒、于田、巴里坤、疏勒、岳普湖、阿克陶、洛浦、塔什库尔干、阿图什市、英吉沙、尼勒克、福海、阿合奇、乌恰、民丰、和田县、和田市、叶城、乌什

As already noted at the end of Part 2, **only a few provinces** are characterized by a very high proportion of poverty-stricken people.

- four provinces account for more than one-third of the “poverty-stricken counties” population;
- seven provinces have more than half of the “poverty-stricken counties” population; and
- eight provinces contain almost two-thirds of the “poverty-stricken counties” population.

The above distribution is partially correlated with the percentage of “poverty-stricken counties” by province.



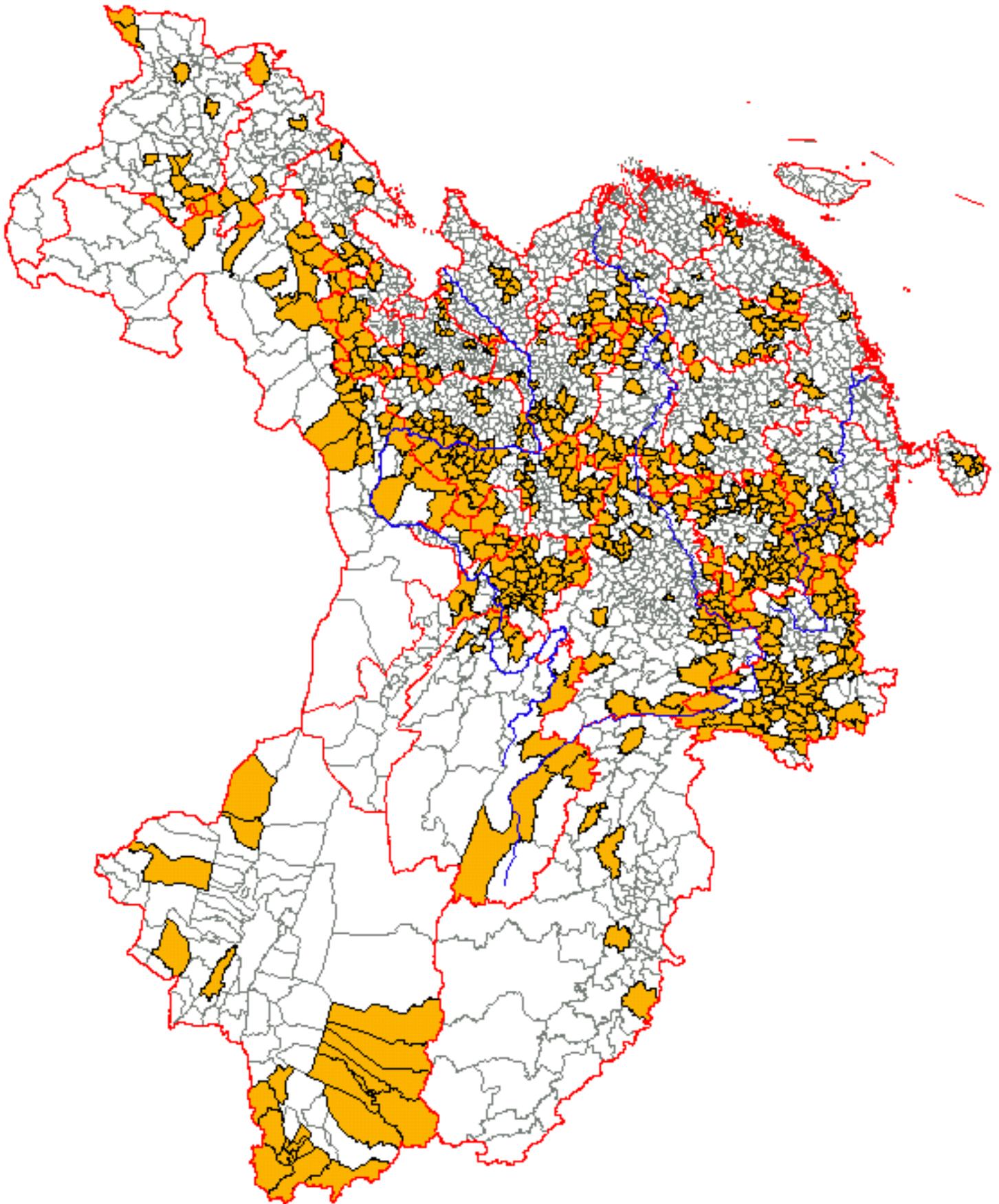
**A South-west - North-east oriented pattern emerges clearly from the map.**

Nevertheless, provincial patterns hide enormous differences within provinces. A preliminary map of “poverty-stricken counties” appears on the following page. It was plotted by the University of Venice (Italy) using the list of “poverty-stricken counties” (see previous page). The outcome is certainly interesting, but there are no great surprises. It should be noted that only 580 out of a total of 592 counties are plotted on the map, as it was not possible at the time to identify the location of 12 counties.

**The location of “poverty-stricken counties” presents us with a net-like pattern, whose mesh runs in between different provinces.**

The result, if we consider the general criteria followed by the Chinese (**remoteness**) makes sense.

Provincial administrative boundaries represent, at least apparently, socio-economic borders between gravitational systems, in which the province core is generally removed from the geographical location of poverty-stricken counties.



**The location of PAG's "poverty-stricken counties"**

When the WFP/IFAD “Vulnerability Analysis Assessment Mission” took place in April 1997, the Chinese Ministry of Agriculture provided important information on the indicators and criteria applied in China to designate a county as “poverty-stricken”.

The variables/indicators are shown in the following list, officially translated into English from the “Indicator System of Poverty Alleviation Groups” produced by PAG.

1. Per capita net income
2. Per capita grain ratios
3. Total available land
4. Total arable land
5. Per capita arable land
6. Financial income
7. Number of townships
8. Number of townships accessible by road
9. Total population
10. Number of rural households
11. Rural population
12. Population with PCNI (Per Capita Net Income)
  - < 500 yuan
  - < 300 yuan
  - < 200 yuan
13. Population with unsafe drinking water
14. Number of animals with unsafe drinking water
15. Villages with electricity
16. Labour
17. Product value of agriculture, animal husbandry and fishery
18. Product value of industry

指 标	单 位
平均每个农村居民纯收入	元
农村居民人均粮食占有量	公斤
耕地面积合计	公顷
其中:旱涝保收面积	公顷
农村居民人均耕地面积	亩
全县财政收入	万元
全县人均财政收入	元
乡镇个数	个
通公路乡数	个
全县总人口	万人
乡村总户数	户
乡村人口	万人
人均纯收入 500 元以下的人口	人
人均纯收入 300 元以下的人口	人
人均纯收入 200 元以下的人口	人
年末尚未解决饮水问题的人口	人
年末尚未解决饮水问题的牲畜数	头
通电村数	个
年末乡村劳动力	万人
农林牧渔业总产值 (现价)	万元
全县工业总产值	万元

To define a county as “poverty stricken” the Chinese PAG makes reference to the concomitance of the above variables/indicators. It was not possible, during the Vulnerability Analysis Assessment Mission, to have a detailed account of the methodology and the procedures applied to produce “converged” results.

It is evident that many of the above variables/indicators are not only useful for identifying “poverty stricken areas” - they could be of even more use in a “vulnerability analysis”.

As frequently emphasized during the WFP/IFAD mission in China, “poverty and vulnerability” are concepts that only partially overlap; poor does not necessarily mean vulnerable and vulnerable does not necessarily mean poor.

Unfortunately few of the above indicators are officially available. Nevertheless an attempt to compare the “poverty-stricken areas” identified by the Chinese PAG with “areas at risk” (clustered through an analysis using “process indicators”) was carried out for the purposes of this report.

Chinese counties were clustered, using multifactorial analysis, on the basis of the process indicators available. Consequently the results provide only preliminary, but very clear “process” district patterns. Integration with “food access and outcome indicators” is needed to produce a “vulnerability map of China”.

It is a very tentative exercise, as the China county base (already implemented by the WFP China Office in collaboration with Chinese authorities and in particular the Ministry of Agriculture) is still very poor.

These very preliminary results are presented and documented in the next section.

## CLUSTERING CHINESE COUNTIES USING “PROCESS INDICATORS”

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In order to compare the “poverty-stricken areas” (as identified by the Chinese PAG) with “areas at risk” identified using the available “process indicators” a multifactorial analysis was carried out.

The most recent available information (1995) was used.

The following indicators were used (with reference to rural population)

1. grain crop performance (tons/ha)
2. oil-bearing crops (tons/ha)
3. sown area per capita
4. cultivated land per capita
5. MCI (Multiple Crop Index)
6. grain crops sown area per capita
7. oil-bearing crops sown area per capita
8. grain crops production per capita
9. oil-bearing crops per capita
10. meat production per capita
11. pork production per capita
12. gross output of agriculture, livestock, fishery and forestry production per capita
13. activity rate (rural labour/rural population)
14. cultivated land/rural labour
15. gross output of agricultural, livestock, fishery and forestry production/rural labour
16. grain crops production/rural labour

The classification procedure clustered 12 significant groups (and five additional ones, not important for our exercise).

Three clusters with critical profiles were singled out for comparison with the PAG's “poverty-stricken counties”.

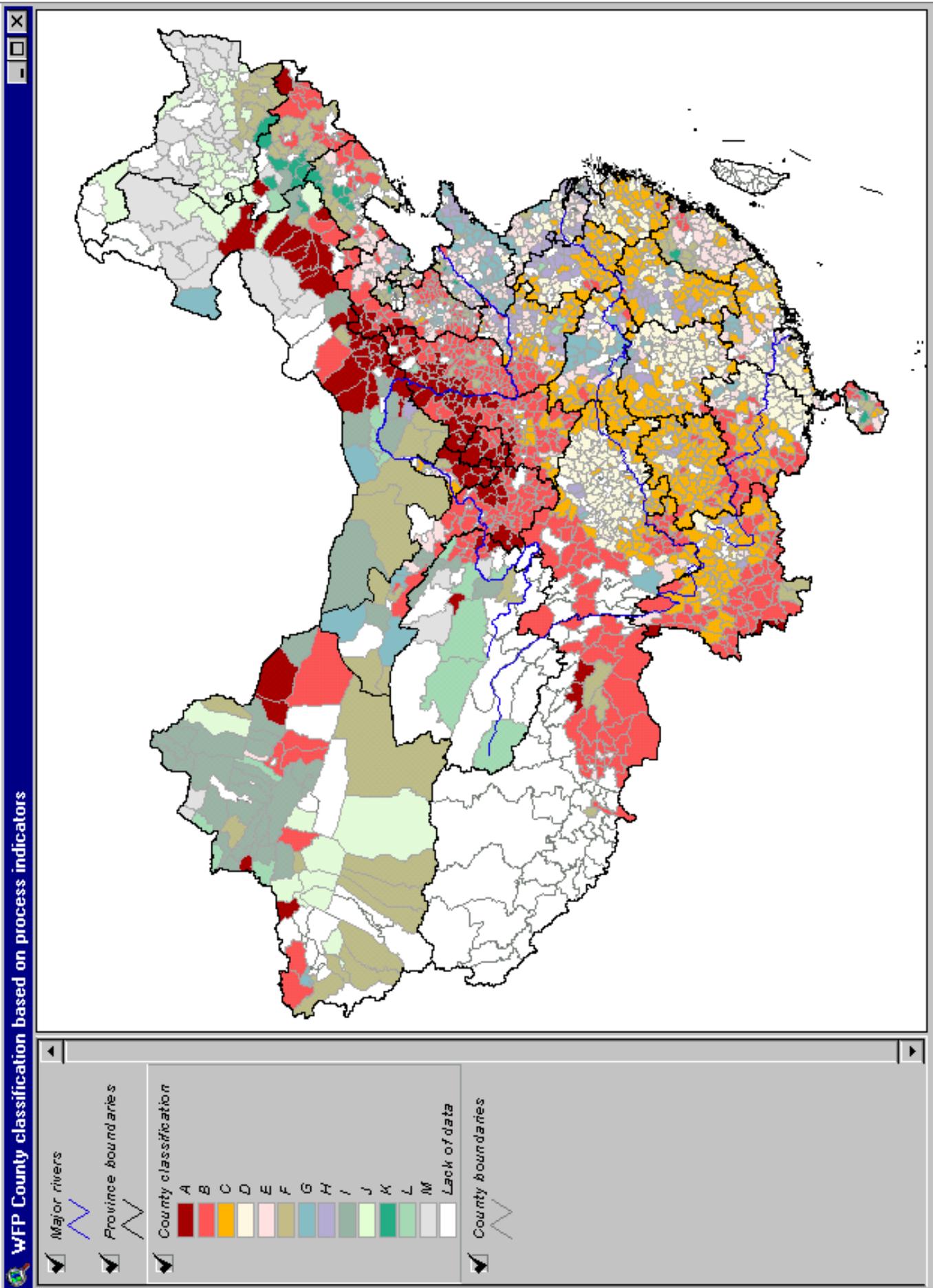
These clusters are characterized by very low average primary sector gross output per capita, but differ substantially in other respects.

They are represented on the maps using warm colours.

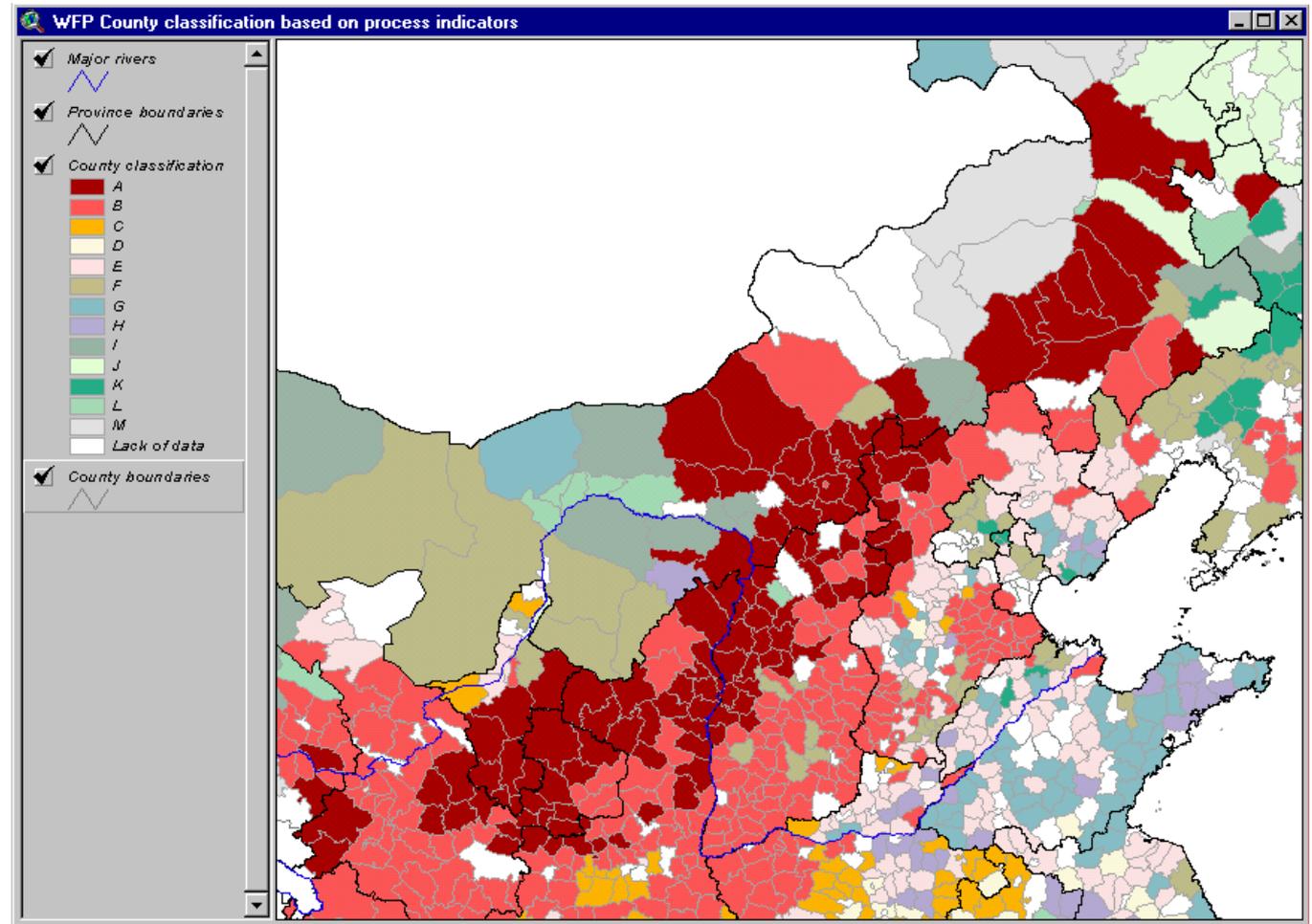
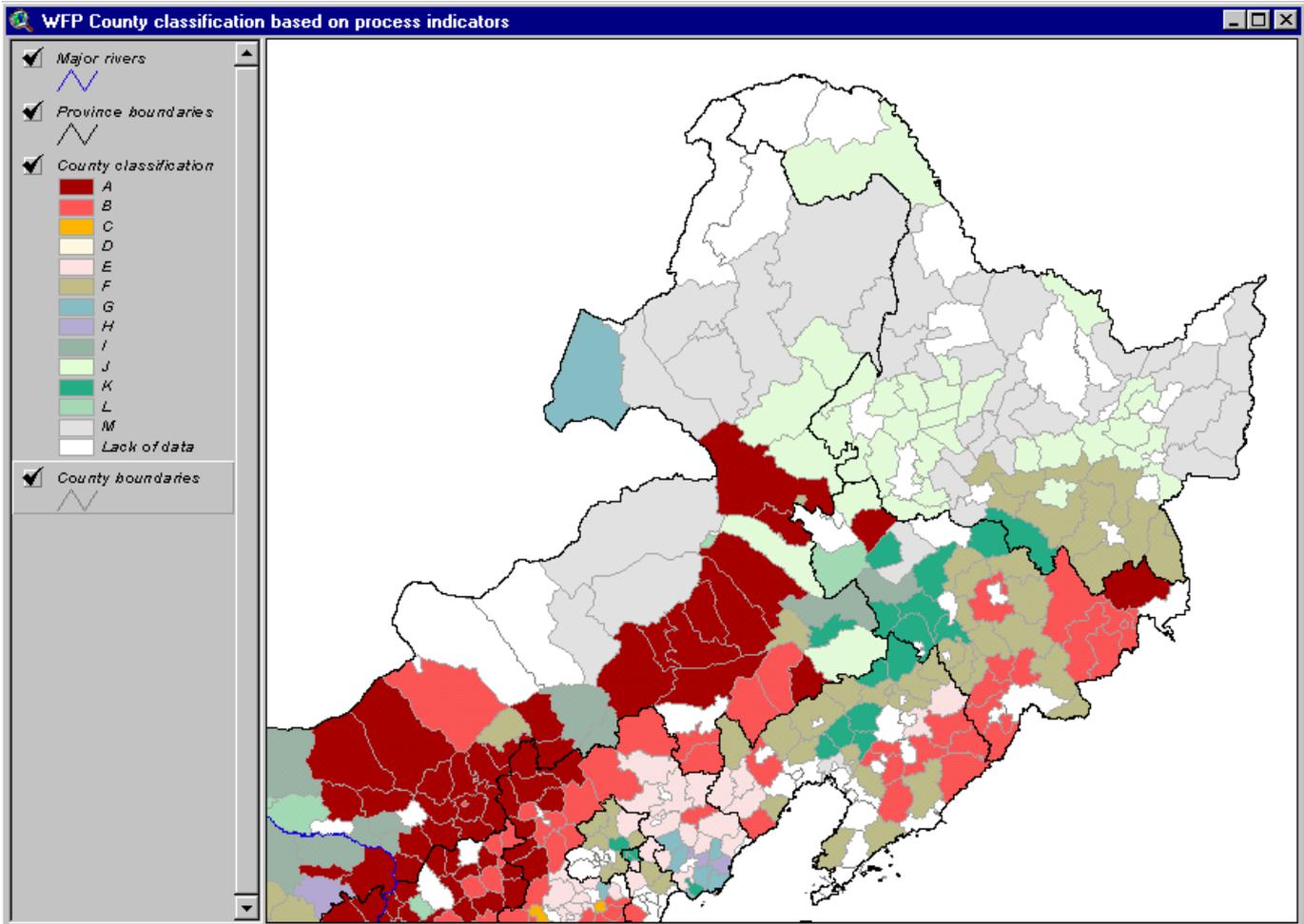
The most critical cluster is characterized by an aggregate profile with the lowest average primary sector production per capita, very low grain and oil-bearing crop production (tons/ha), an MCI (crop intensity) < 1, generally low per capita production (particularly of oil and meat, especially pork) and very low labour productivity (Cluster A, dark red on the maps).

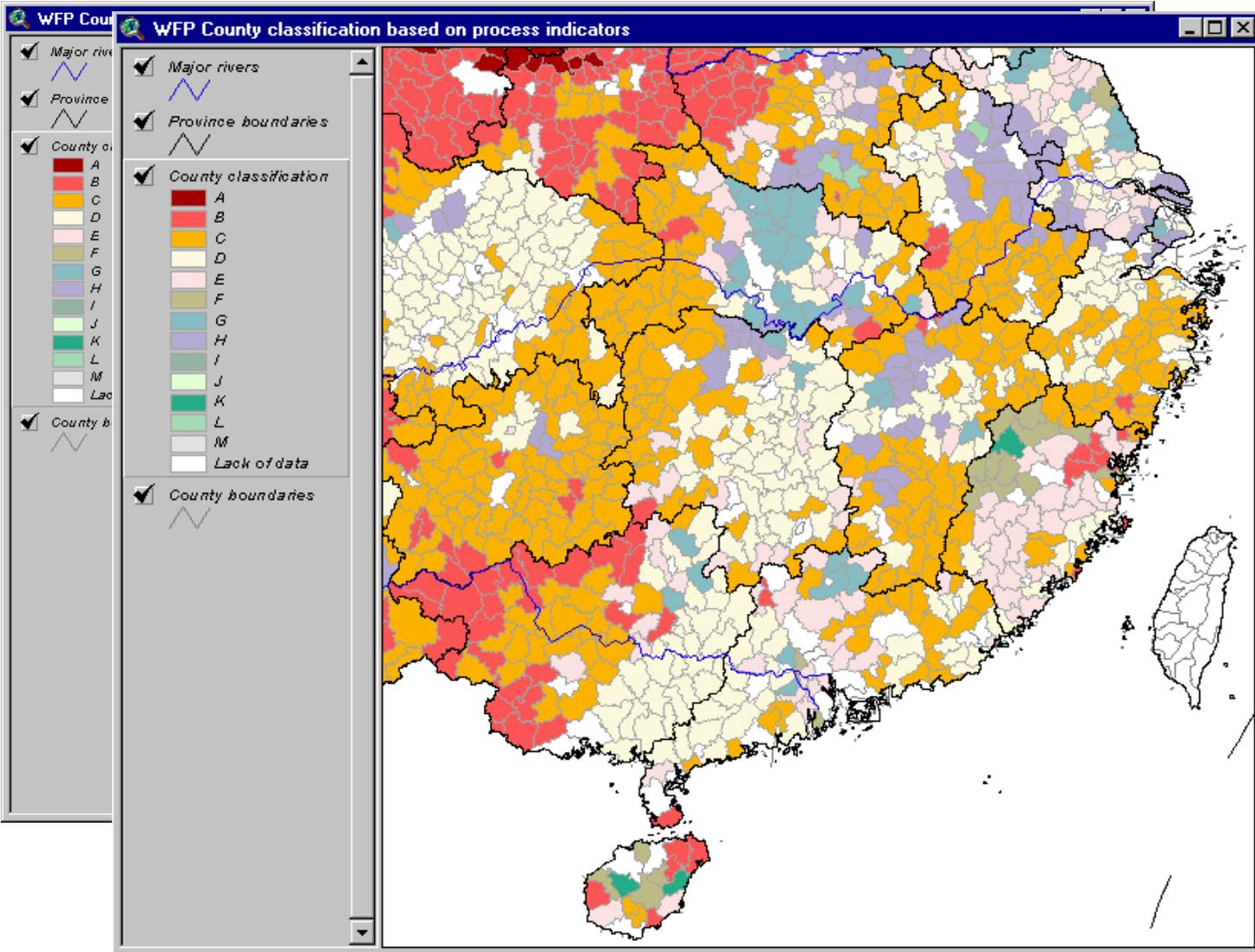
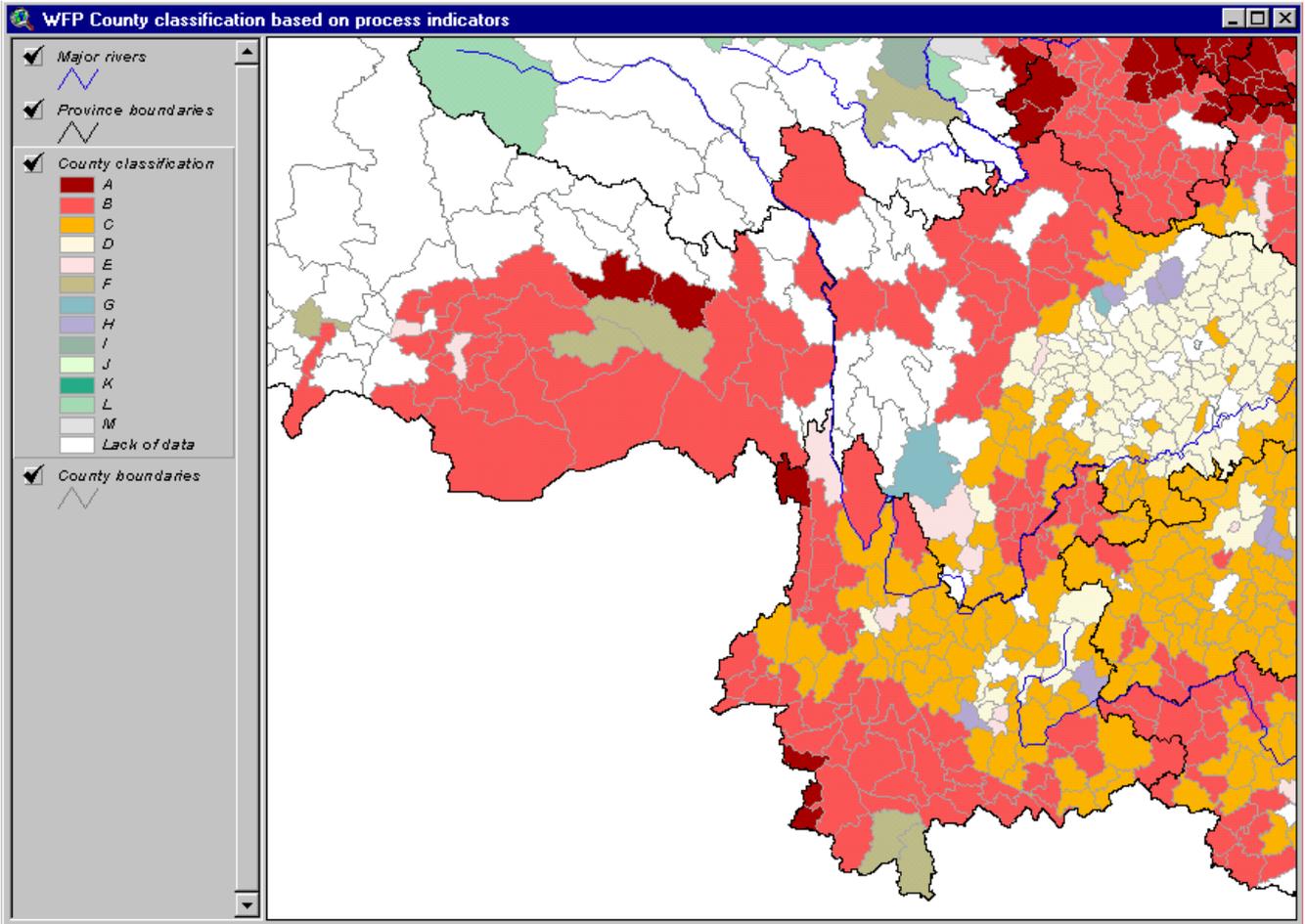
Cluster B (red on the maps) presents a profile with still low average primary sector production per capita, accompanied by no multiple cropping system, and low per capita production of grain, oil and meat (particularly pork). Labour productivity too is still low.

Finally Cluster C (dark orange on the maps) presents a better profile; nevertheless average primary sector production per capita is still low, as is grain, oil and meat production per capita and labour productivity. Apparently the MCI (multiple cropping system) of this cluster is high.









The distribution by province of the counties included in Clusters A, B and C is summarized in the table below.

**Poverty-stricken counties by PAG  
matching with**

	Cluster A	Cluster B	Cluster C	Poverty-stricken counties (PAG) but not clustered by the analysis	Poverty-stricken counties identified by the analysis but not by PAG
<b>Province Code</b>					
11					
12					1
13	7	20		11	36
14	20	13		2	59
15	18	4		8	13
21		3		5	6
22	2	1		3	11
23				10	
31					
32					3
33		1	2		33
34		2	9	6	28
35		3	2	3	12
36			13	4	29
37		1		8	1
41		10	10	7	40
42		1	15	6	11
43			7	3	25
44			2	1	19
45		16	11	1	19
46		1	2	2	4
51		9	14	13	49
52		9	38		27
53	4	38	28	2	35
54		2			28
61	21	23	5		40
62	10	27		1	22
63	2	5			6
64	8				3
65	2	2		9	7
<b>Total</b>	94	191	158	105	567

It is evident that the profile of Cluster A matches closest the PAG definition of “poverty-stricken county”; more than 70% of the counties clustered here are also included in the PAG list.

Cluster B, too, appears to have a profile quite close to the PAG definition; 44.2% of the counties in this cluster are included on the PAG list.

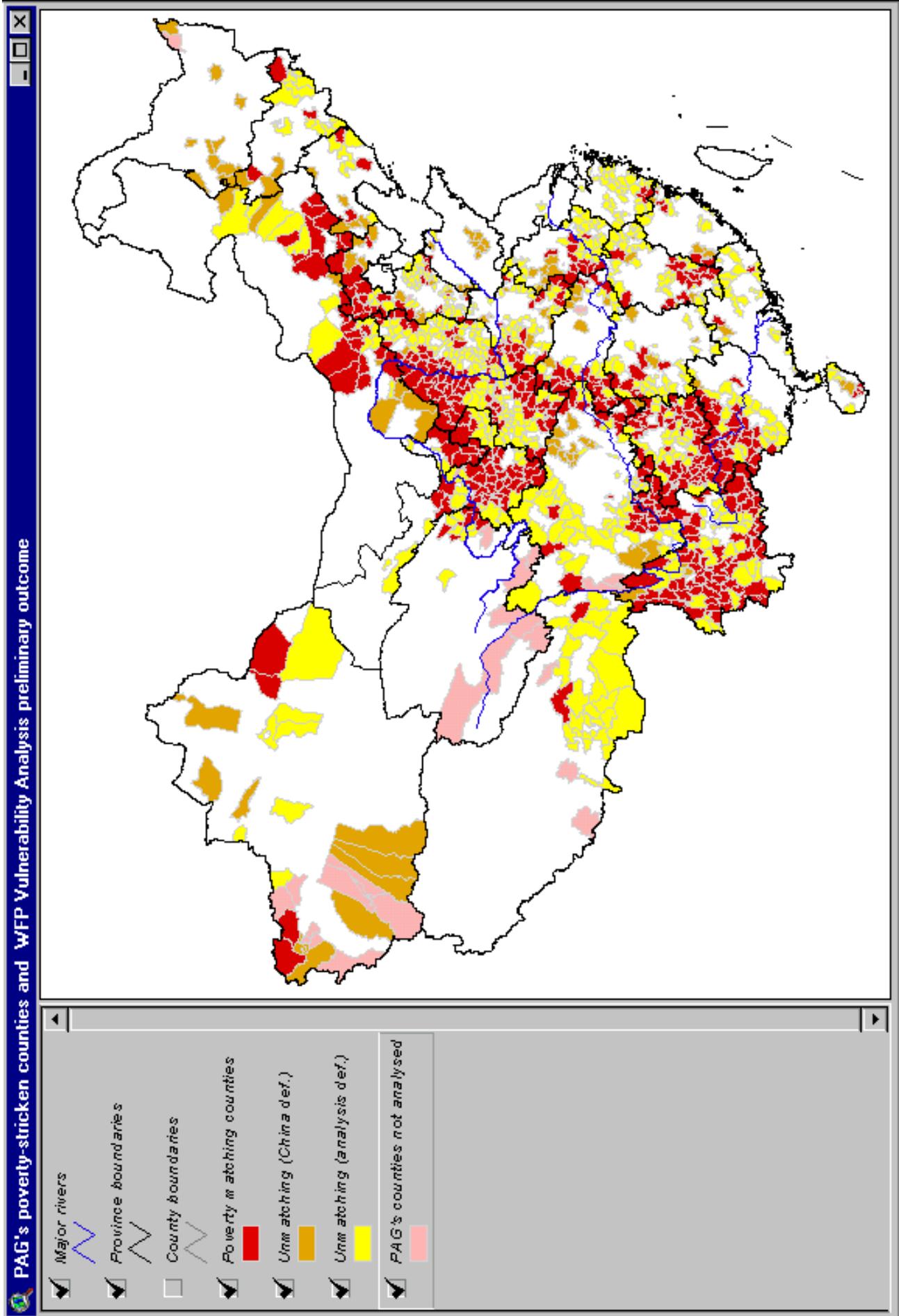
Finally Cluster C still provides a partial match with the PAG criteria: 35.3% of the counties clustered here appear on the PAG list.

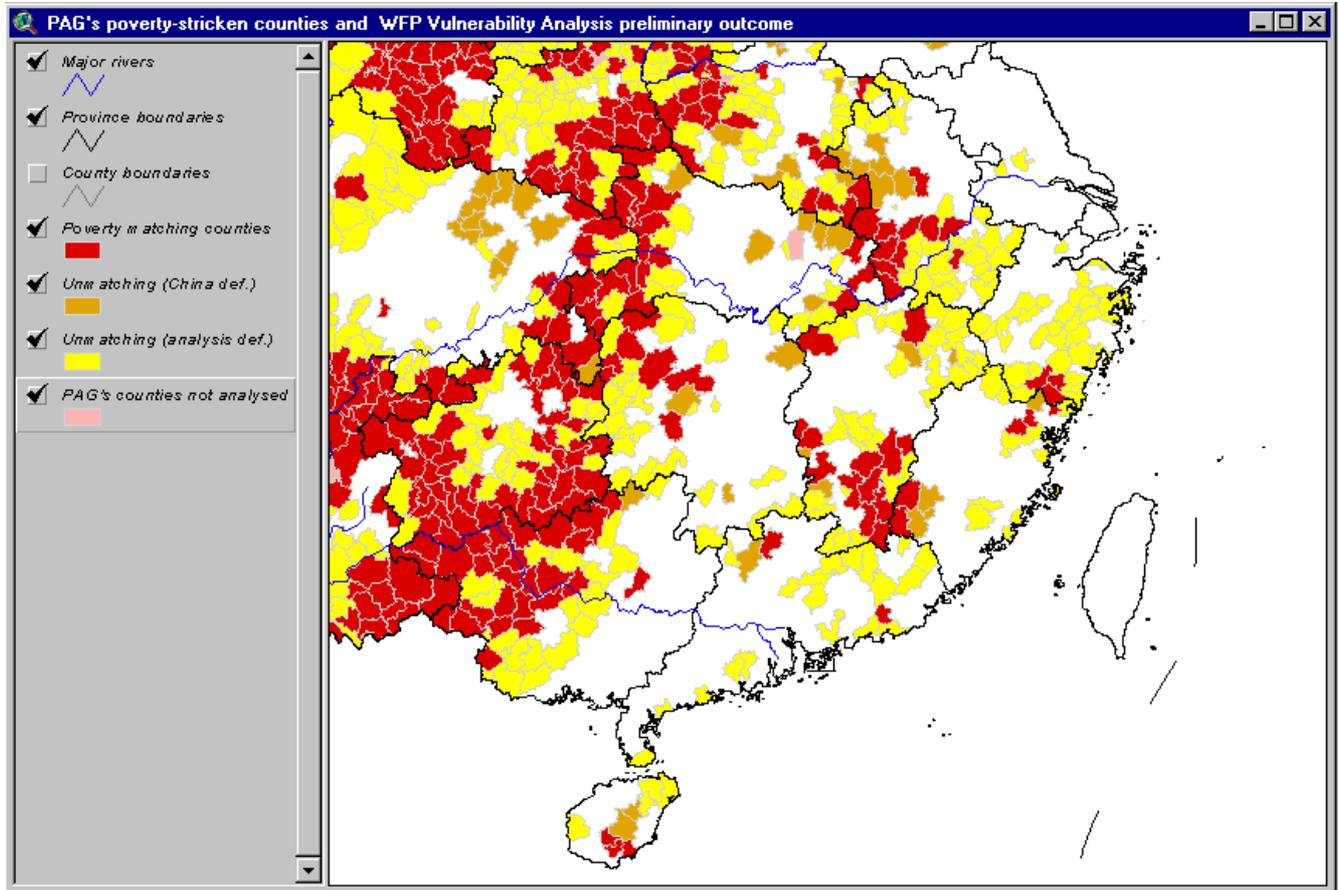
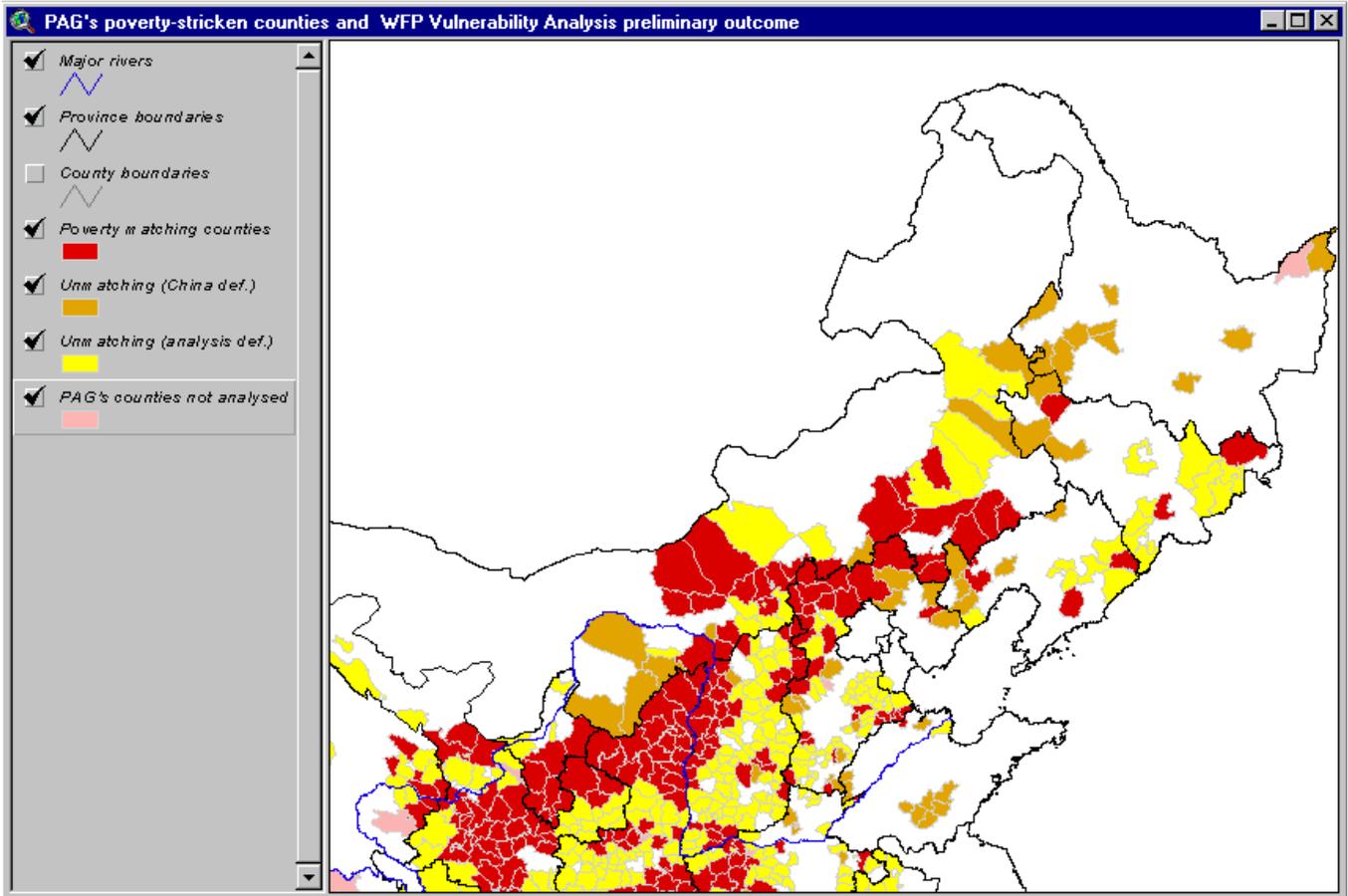
In summary, clusters A, B and C contain, in total, at least 75% of PAG's "poverty-stricken counties".

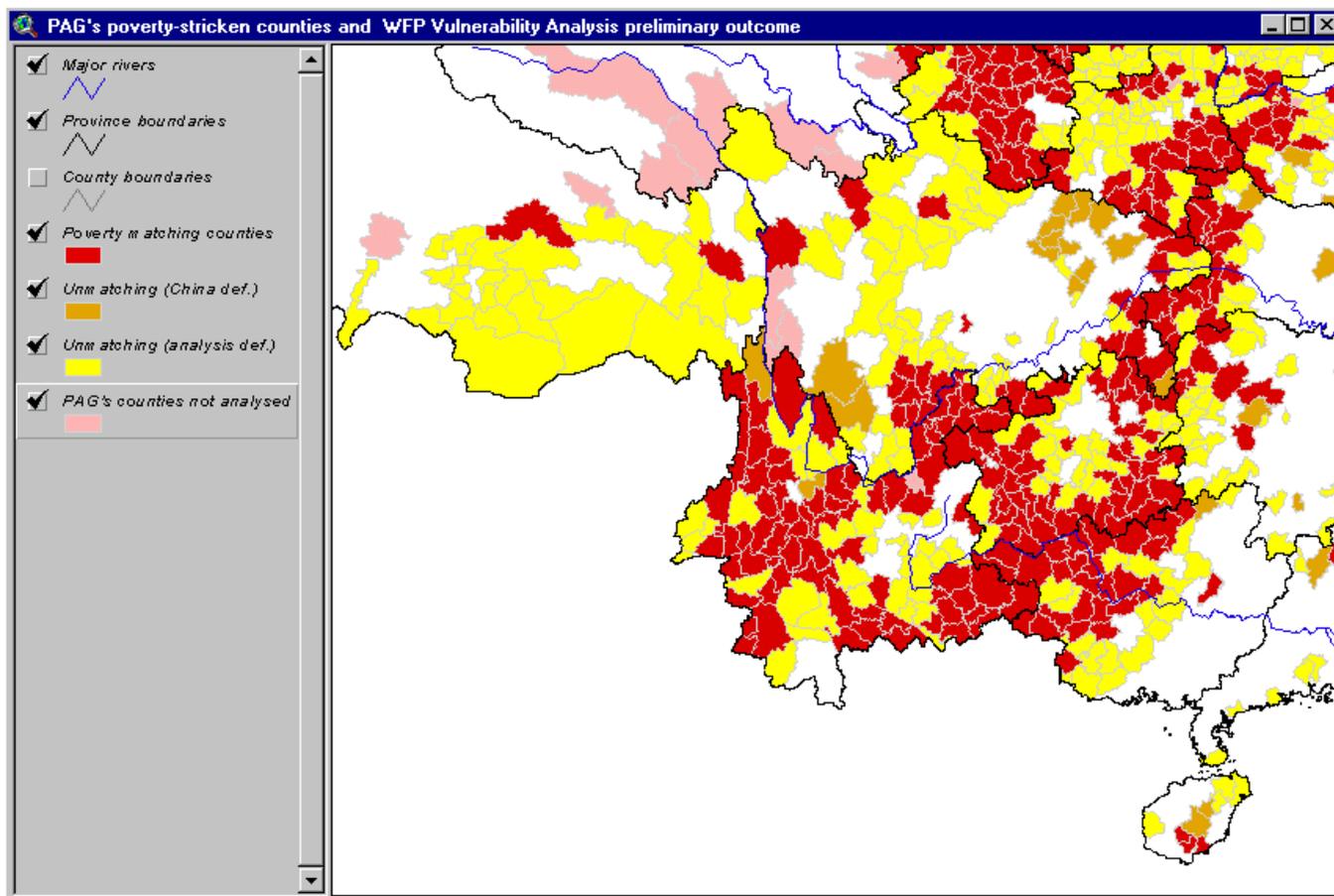
It has not been possible to get enough information on 31 counties considered by PAG as "poverty-stricken" to include them in the analysis.

The following maps, produced by the University of Venice, plot the location of the above-mentioned counties using, for easy reference, colour codes to identify different groups:

- counties listed as "poverty-stricken" by PAG and included in clusters A, B and C (of our "process indicators" classification) are shown in red;
- counties listed as "poverty-stricken" by PAG but non included in clusters A, B and C are shown in brown;
- counties included in clusters A, B and C but not listed as "poverty-stricken" by PAG are shown in yellow.
- the 31 counties on the PAG list but not included in our analysis are shown in light pink.







As a preliminary conclusion, we can say that there is a substantial convergence of results between the PAG criteria and those WFP has experimented with in this classificatory exercise (using “process indicators” exclusively).

The outcome is not surprising, as both results come from the same conceptual framework. It is an encouraging result, which offers good prospects for fruitful joint activities with the Chinese institutions.

Nevertheless the fact that our Cluster A, which is characterized by the poorest economic conditions, includes several counties not classified as poverty-stricken by PAG is rather surprising. The question of why this is so will be a good starting point for our joint activities.

To facilitate the discussion, a list of these counties is printed on the next page.

It is worth noting that the counties in Cluster A that do not match PAG’s poverty-stricken counties list are, in most cases, geographically contiguous to listed ones.

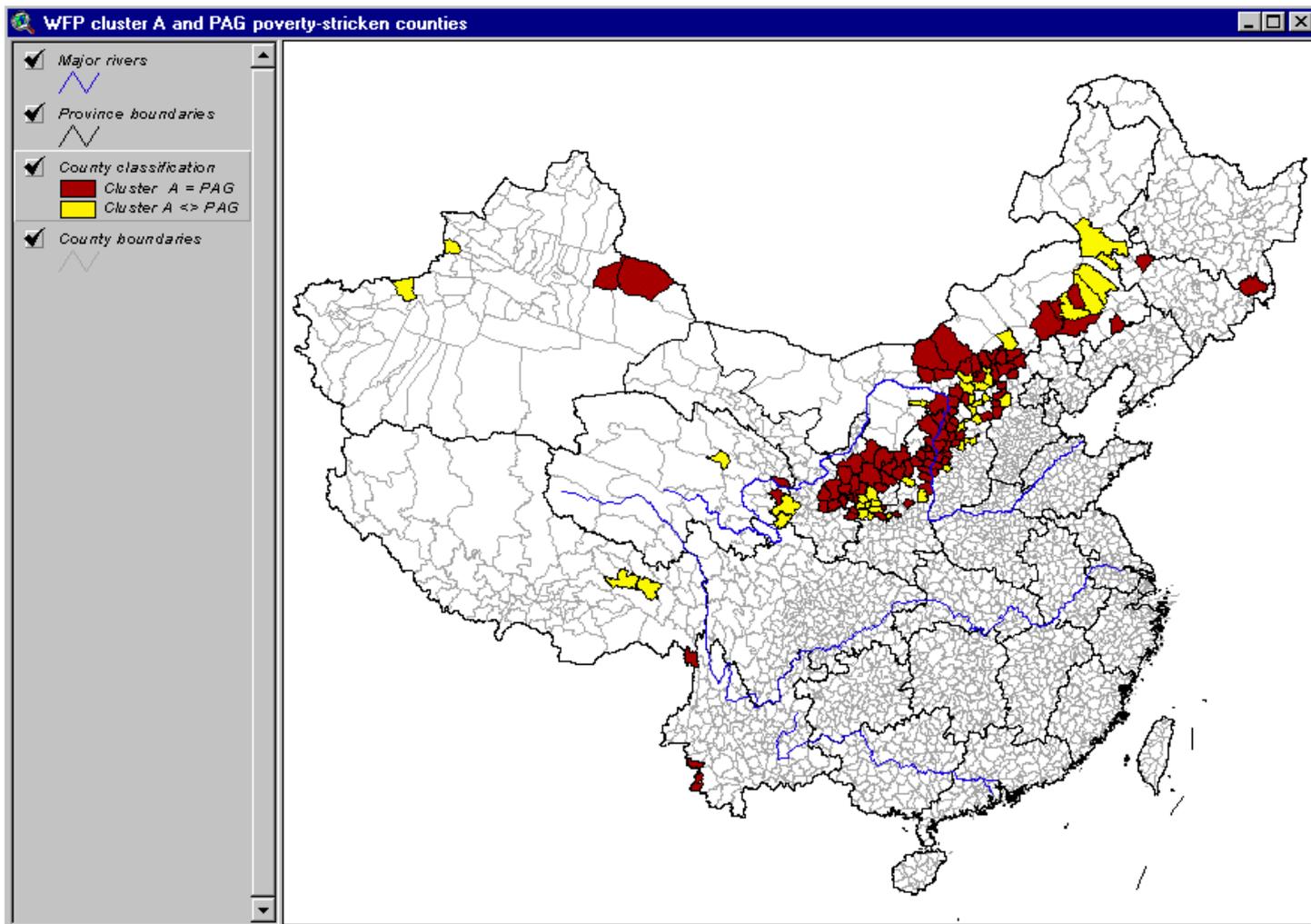
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**List of counties belonging to our Cluster A and not included in the PAG’s “poverty-stricken counties” list**

<b>County Code</b>	<b>County Name</b>
132525	Wei Xian
140122	Yangqu Xian
140181	Gujiao Shi
140621	Shanyin Xian
142130	Zuoyun Xian
142132	Datong Xian
142133	Huairen Xian
142225	Dai Xian
142227	Ningwu Xian
142333	Jiaokou Xian
150421	Aluke`erqin Qi
150423	Balin-You Qi
152221	Ke`erqin-Youyiqian Qi
152224	Tuquan Xian
152327	Zalute Qi
152529	Zhengxiangbai Qi
152602	Fengzhen Shi
152624	Zhuozi Xian
152627	Xinghe Xian
152629	Liangcheng Xian
152701	Dongsheng Shi
542132	Luolong Xian
542133	Bianba Xian
610327	Long Xian
610328	Qianyang Xian
610426	Yongshou Xian
612627	Ganquan Xian
612631	Huanglong Xian
622701	Pingliang Shi
622722	Jingchuan Xian
622723	Lingtai Xian
622724	Chongxin Xian
622725	Huating Xian
622827	Zhenyuan Xian
623026	Luqu Xian
623027	Xiahe Xian
632821	Wulan Xian
652927	Wushi Xian
654122	ChabuCha`er Xibo Zizhixian

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The map on the following page shows the above counties in yellow. Those counties that appear both in Cluster A and on PAG’s list are shown in brown.



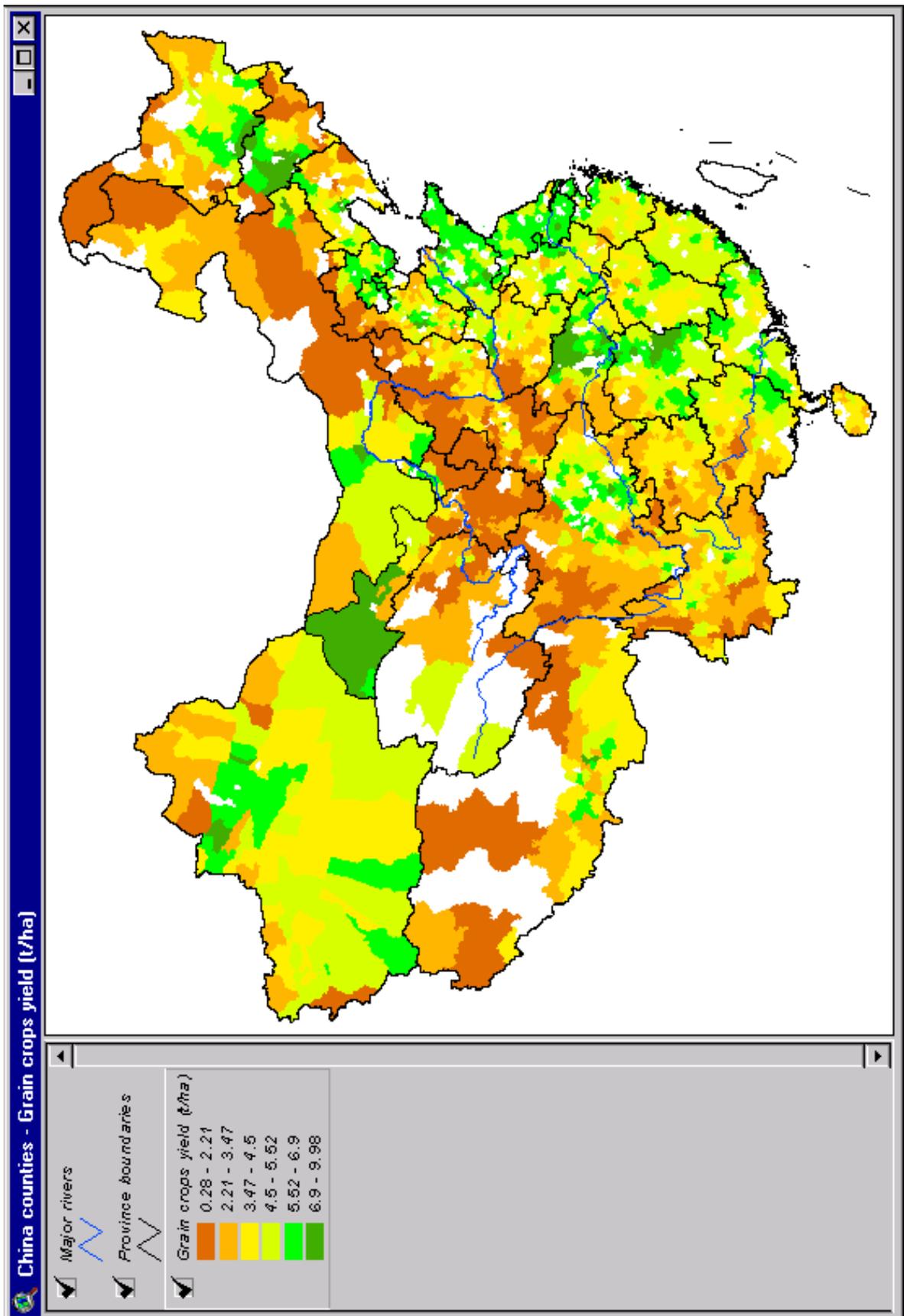
## A FINAL COMMENT

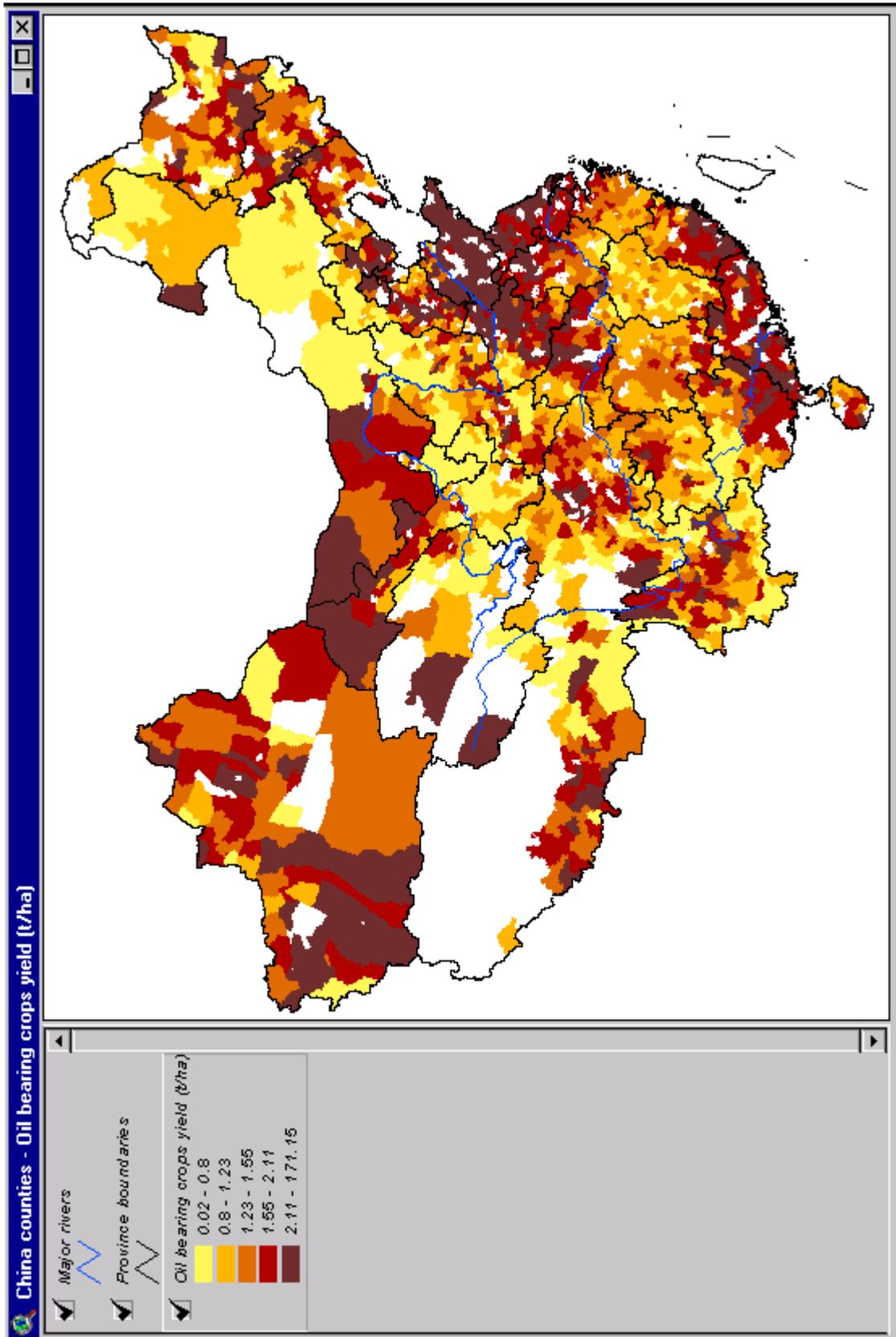
Although the convergence of results is substantial it should not be forgotten that **we are still dealing with a *risk analysis* and not with a broader, more comprehensive *vulnerability analysis*.**

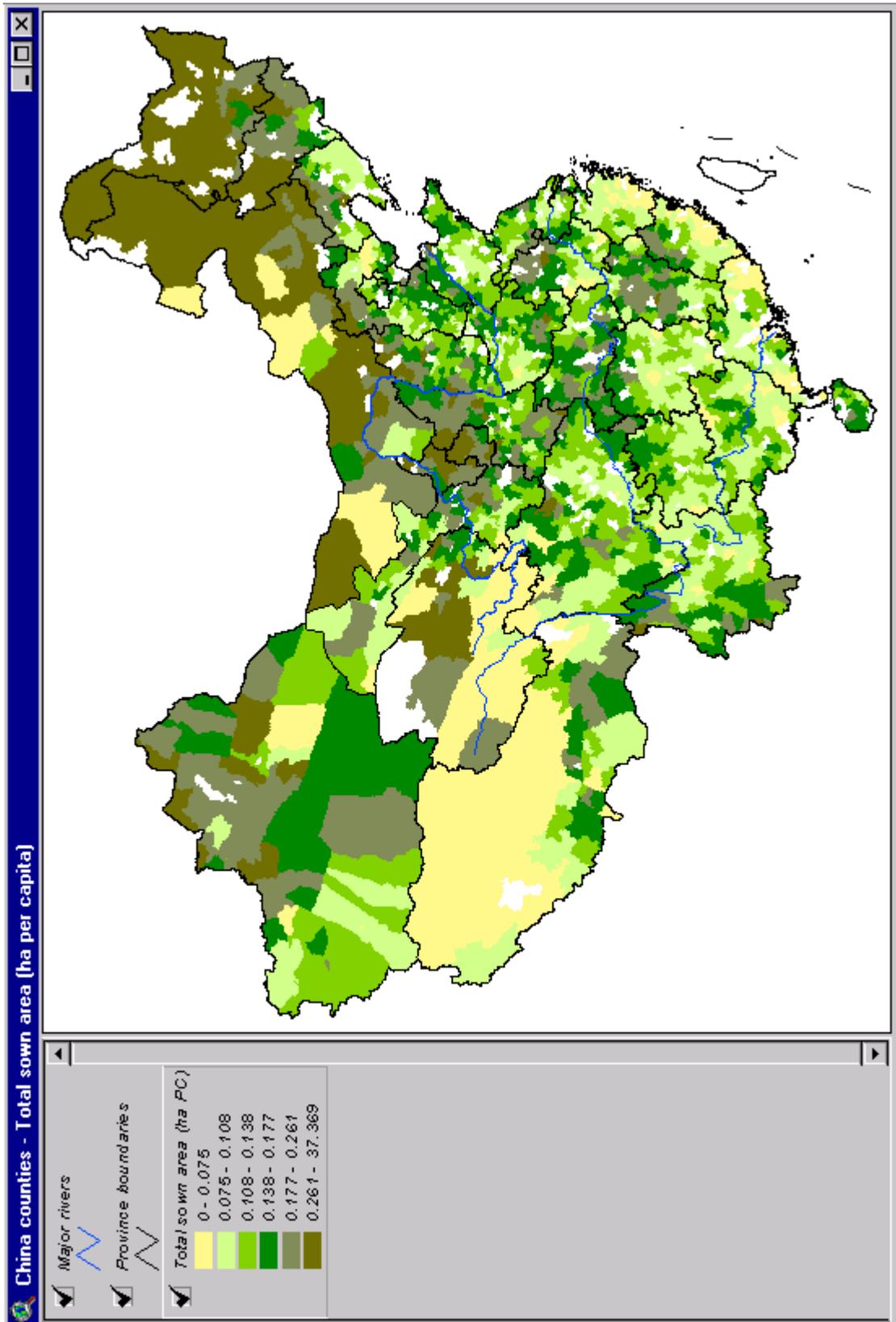
The substantial concomitance of results is explained, at least in part, by the use of a set of same/similar indicators.

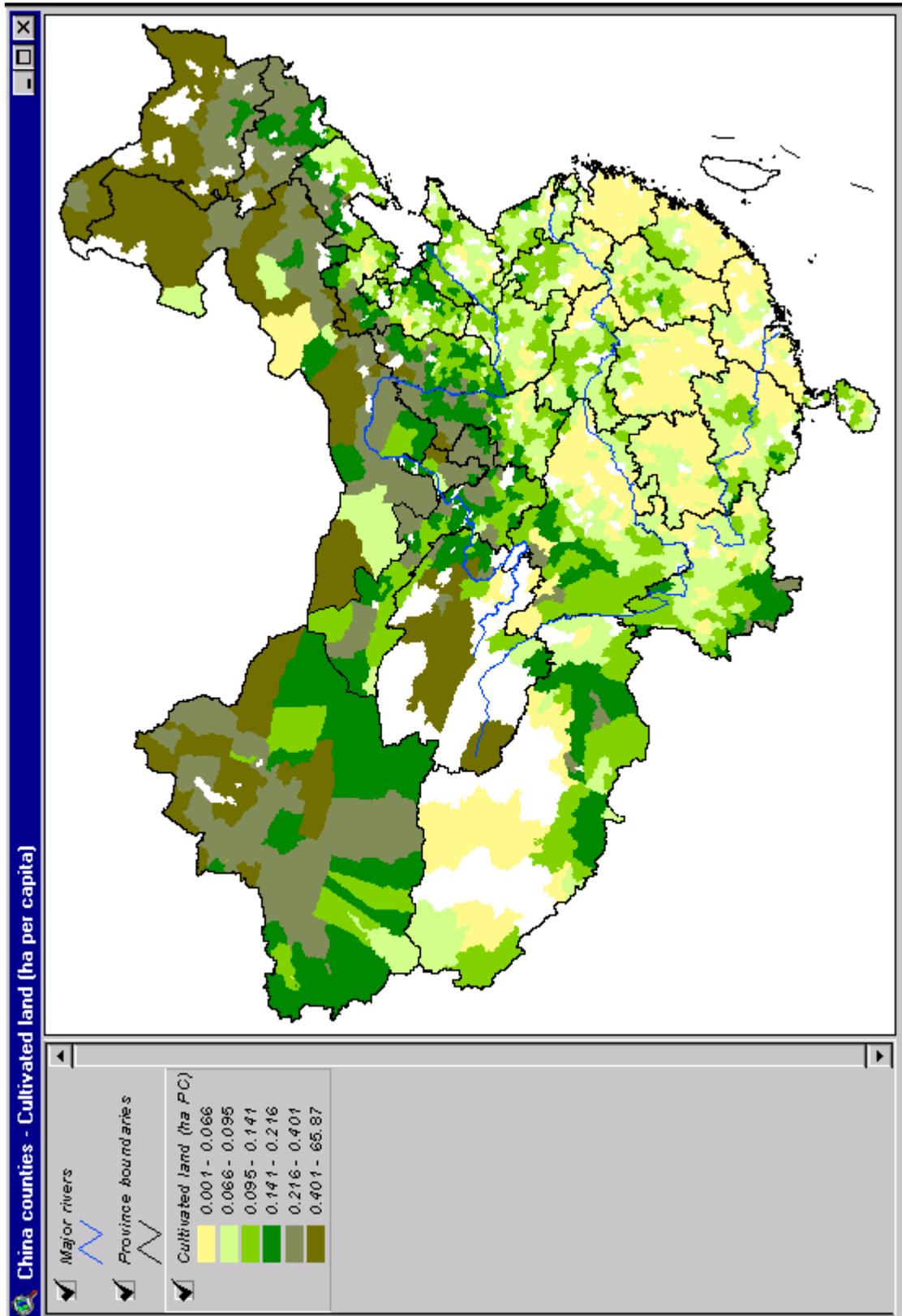
**The above classification provides very clear county patterns based only on *process indicators*. To produce a true “vulnerability map of China” the integration of these indicators with *access and outcome indicators* is vital**

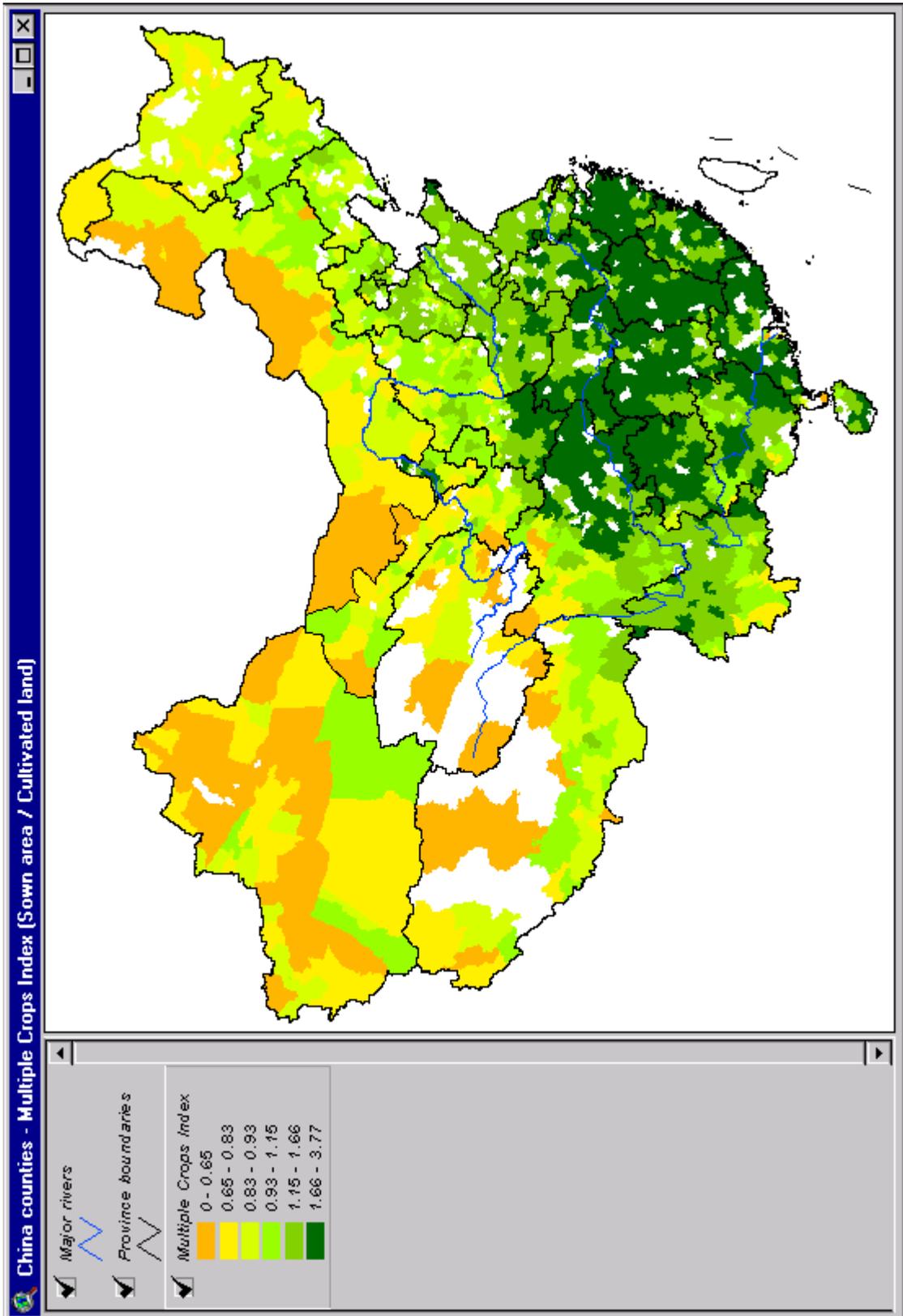


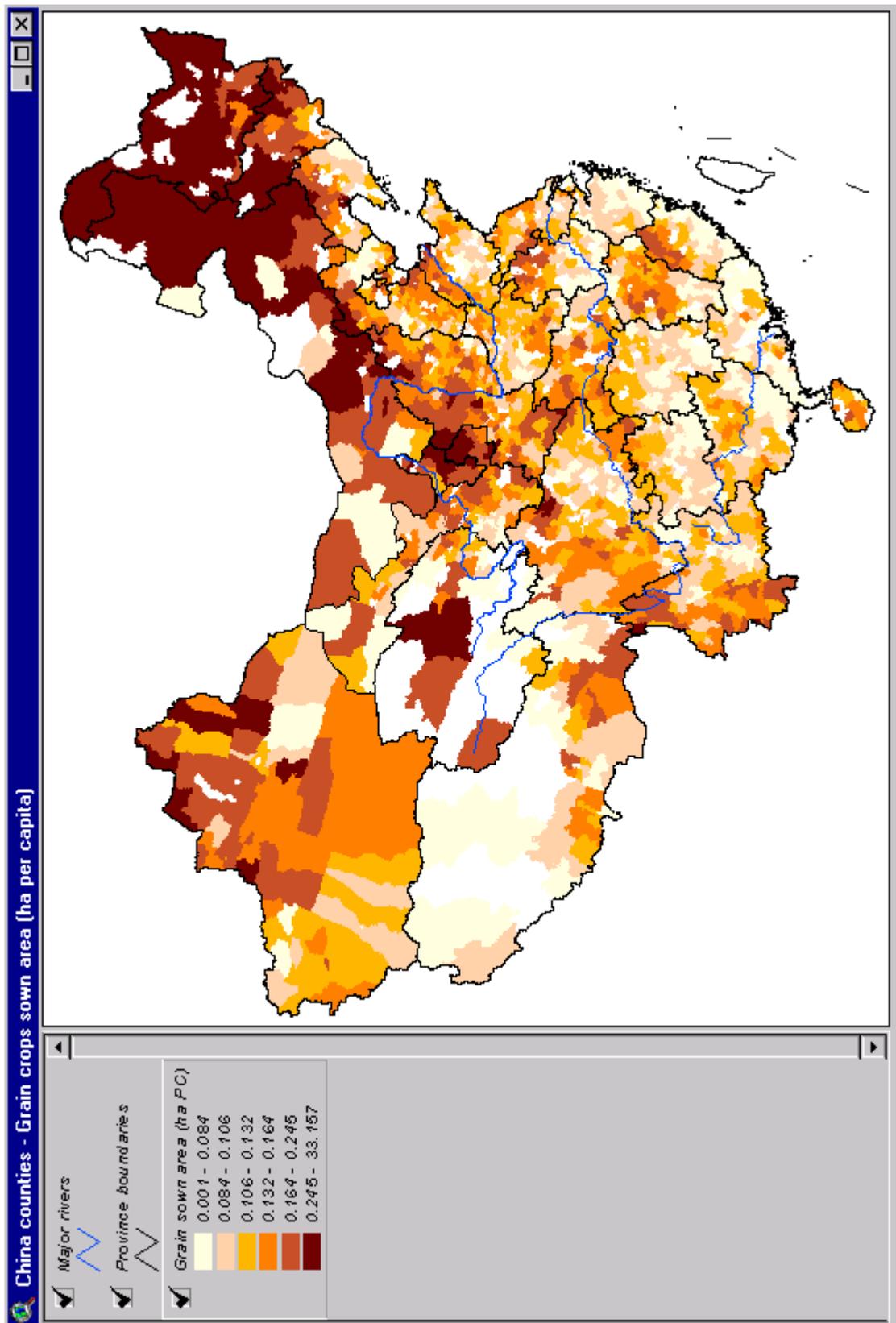


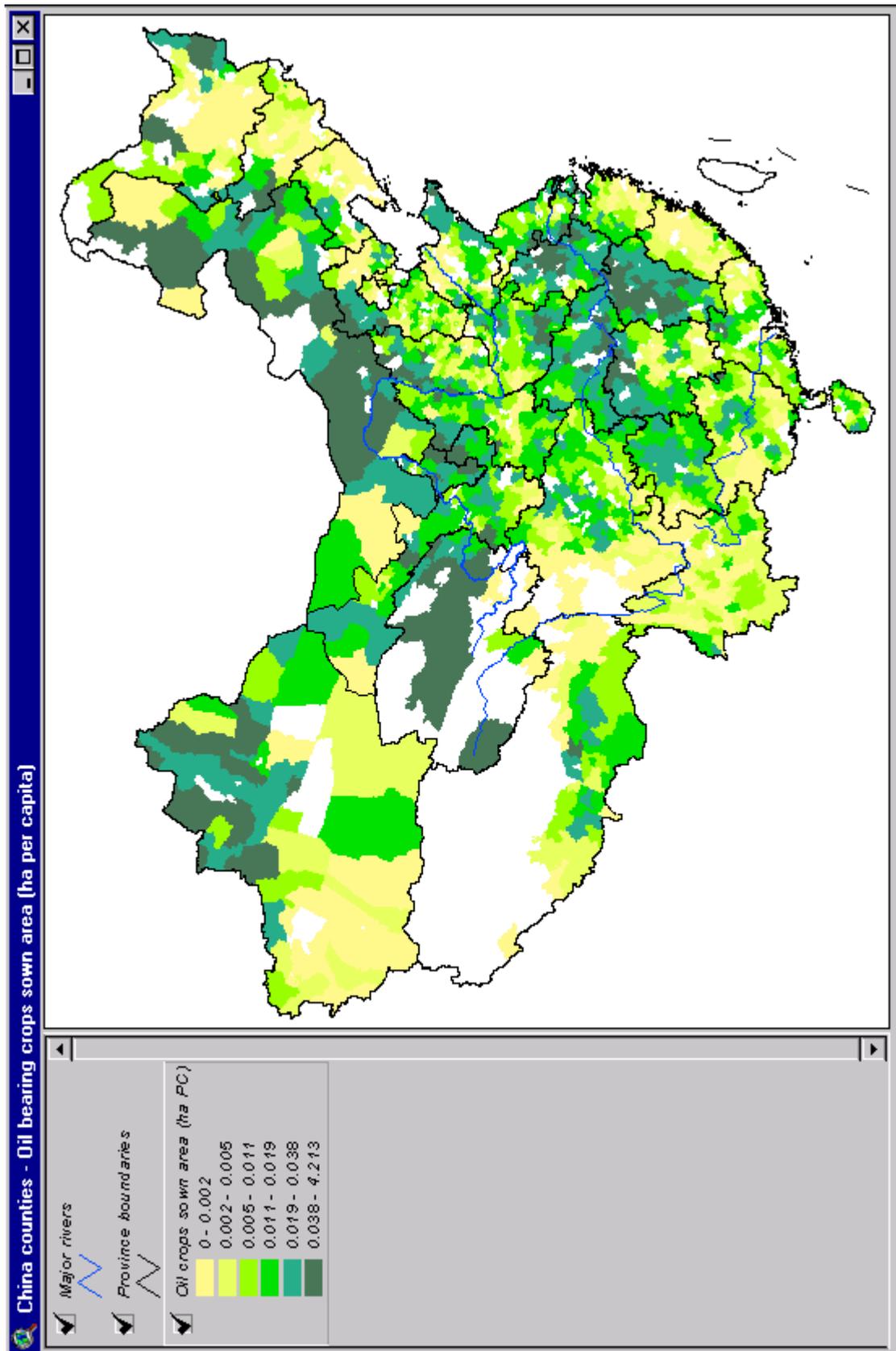


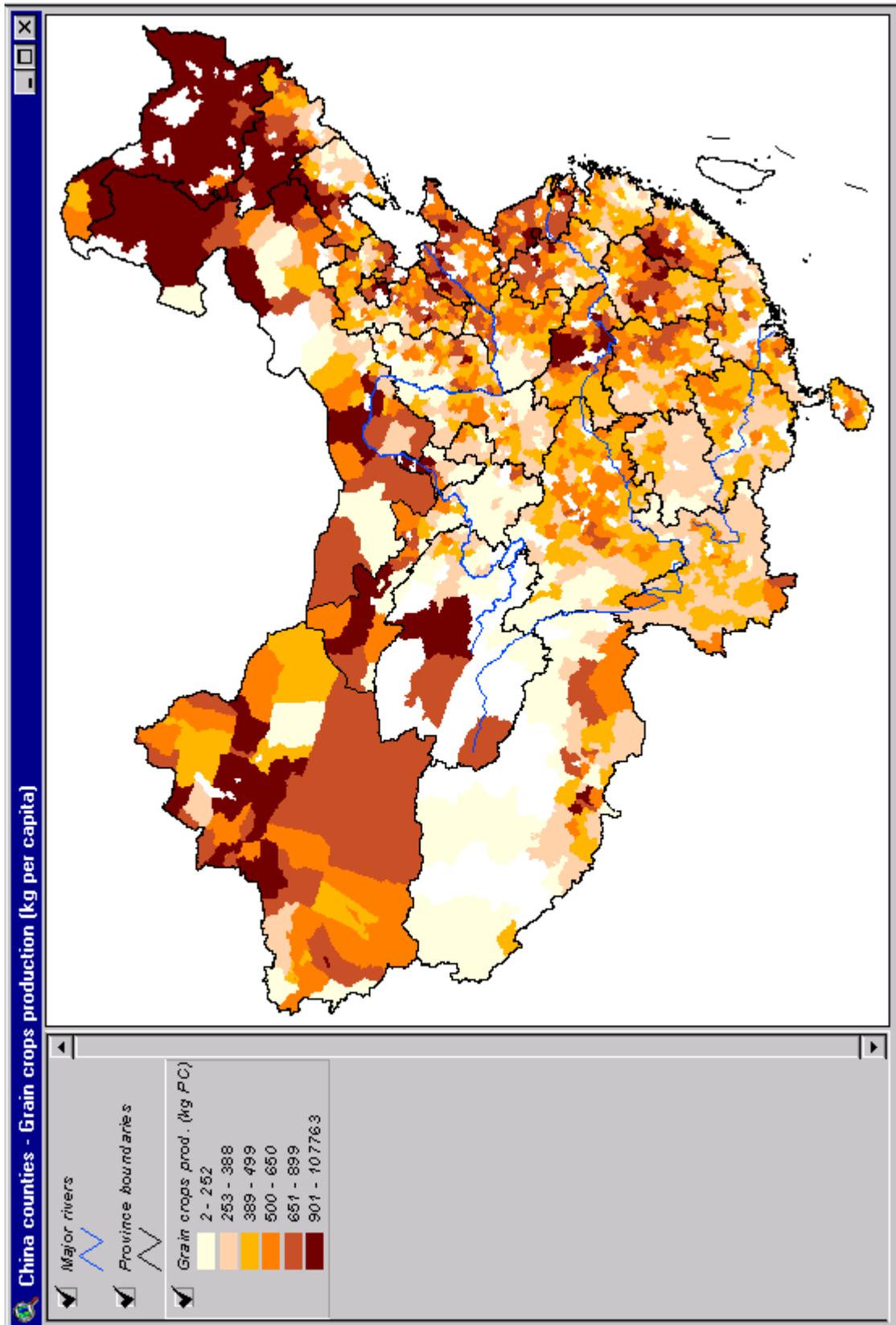


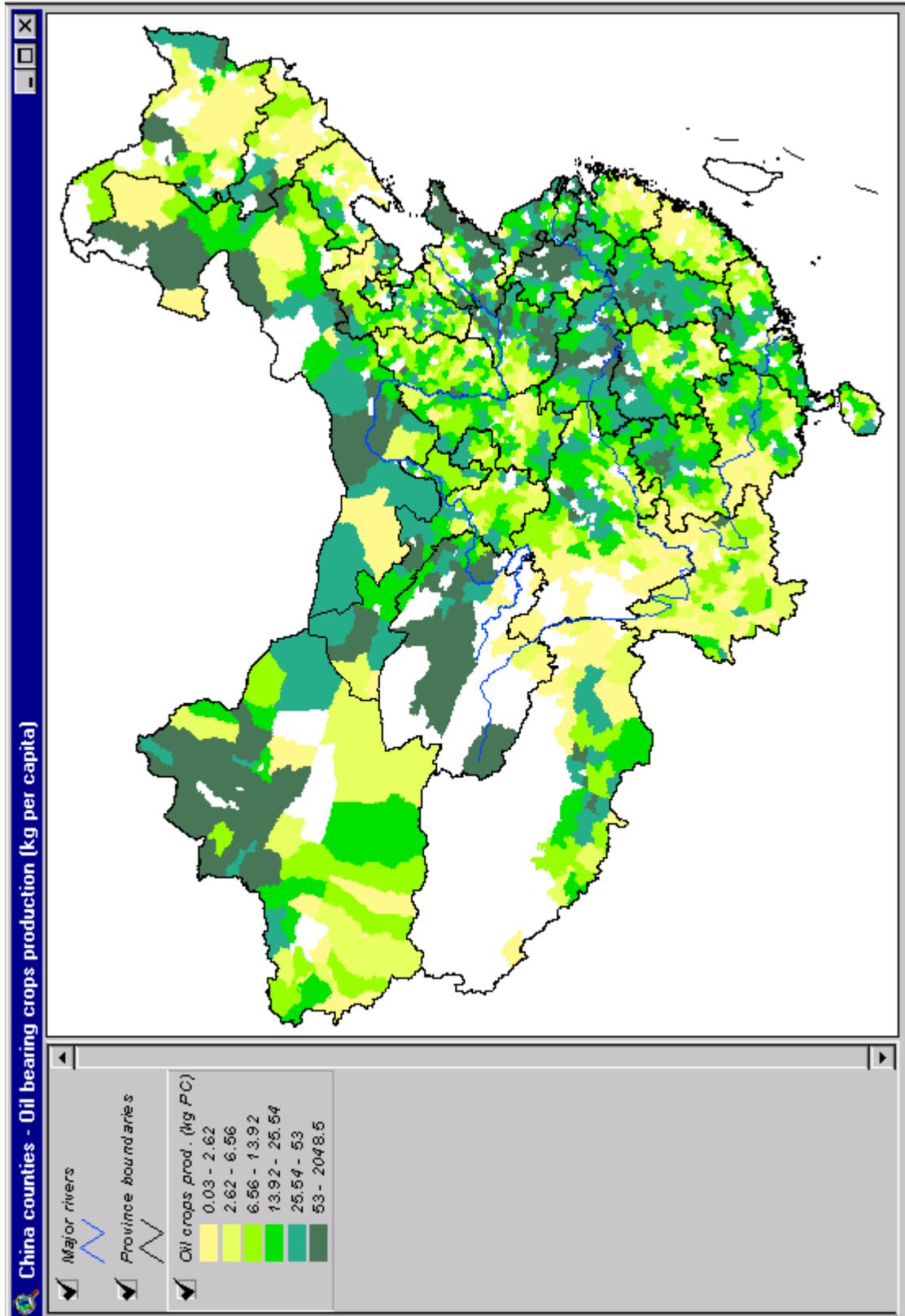


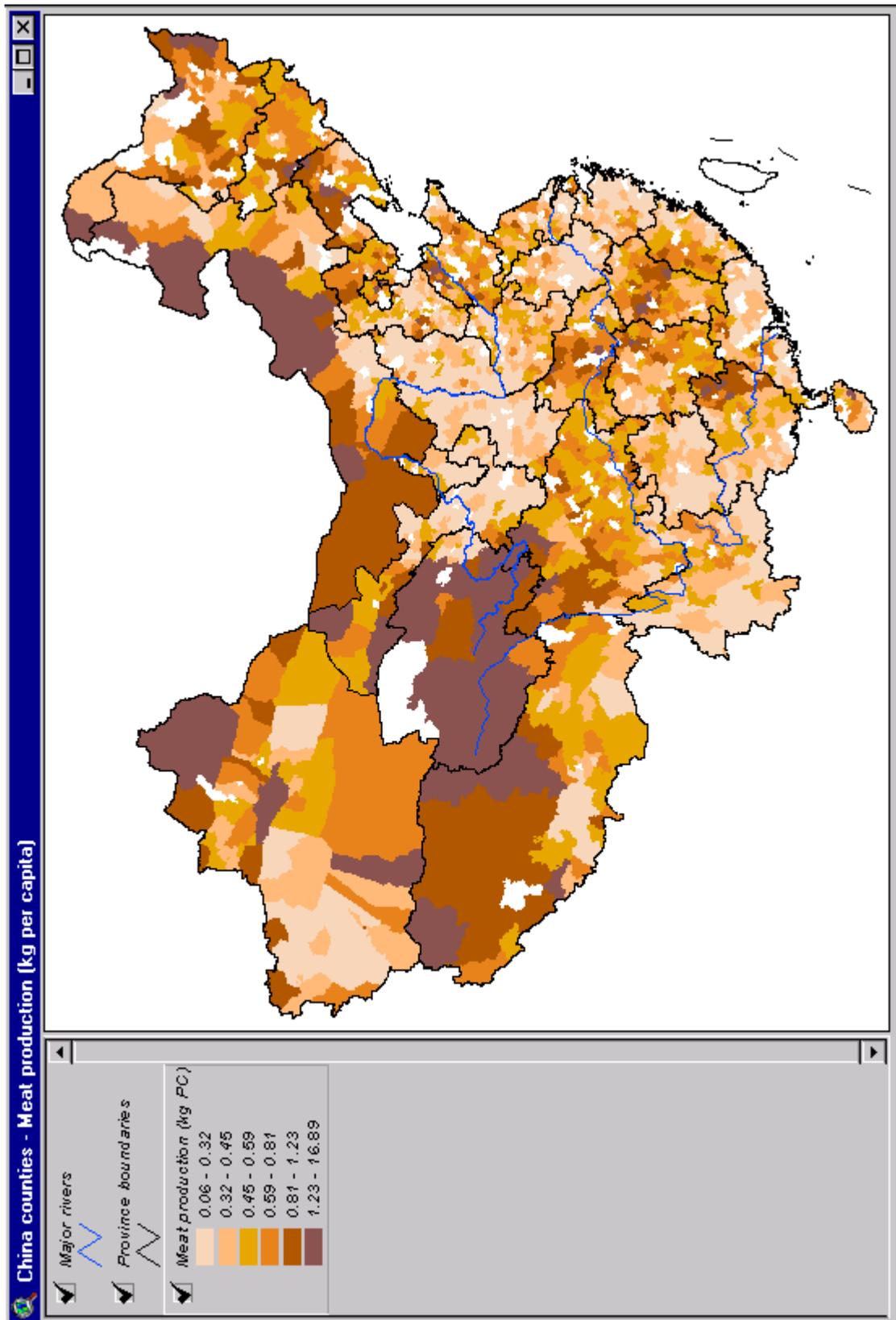


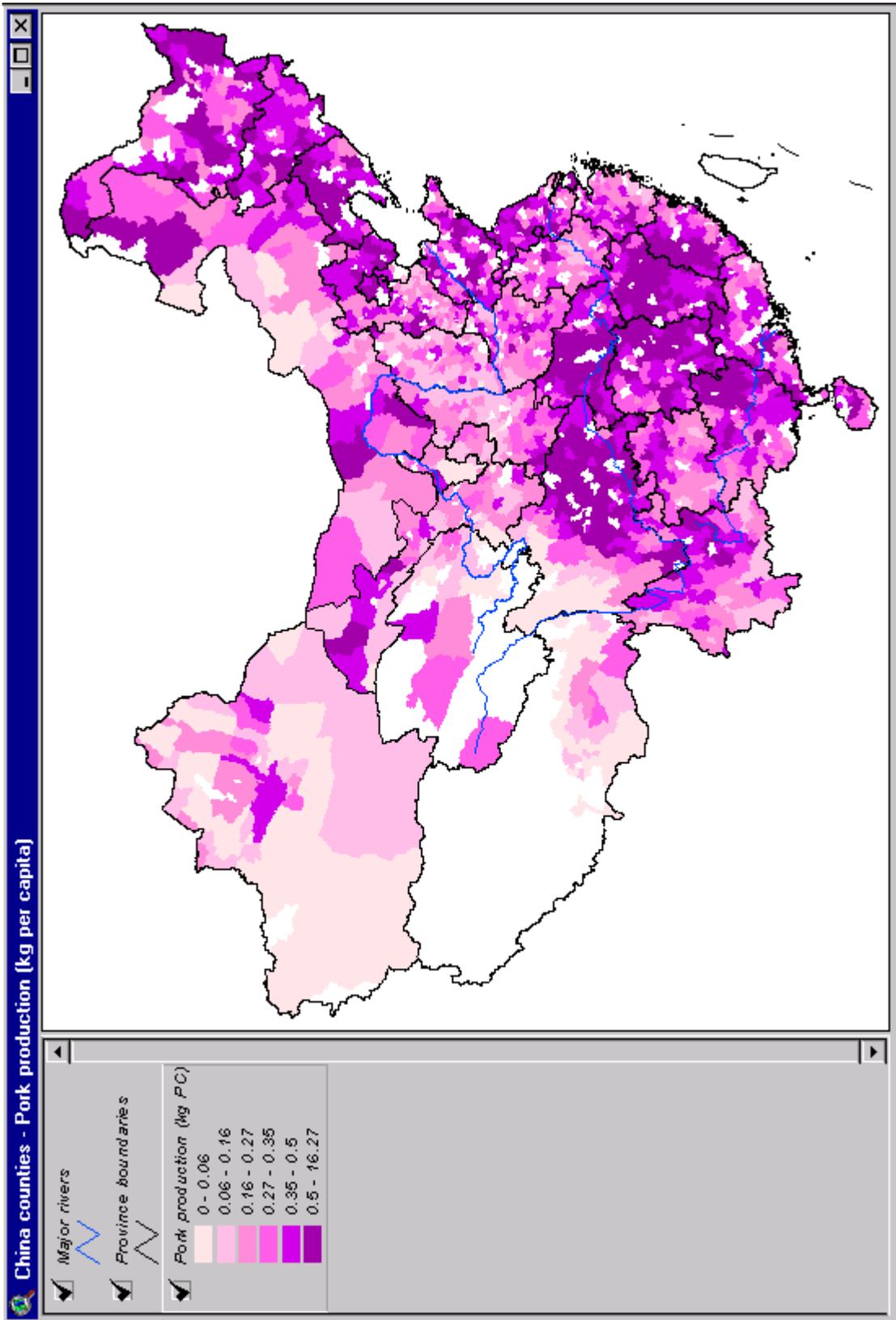


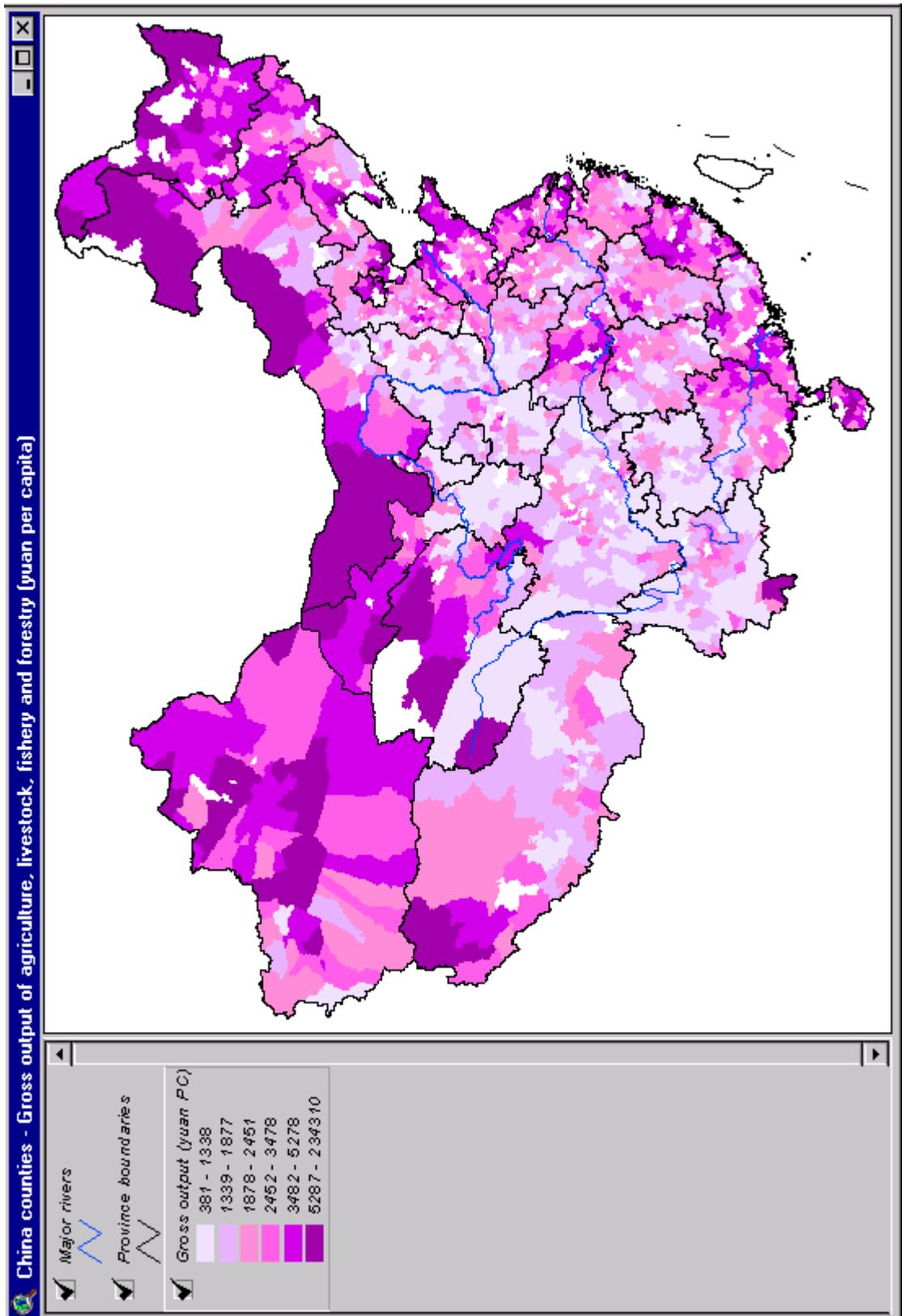


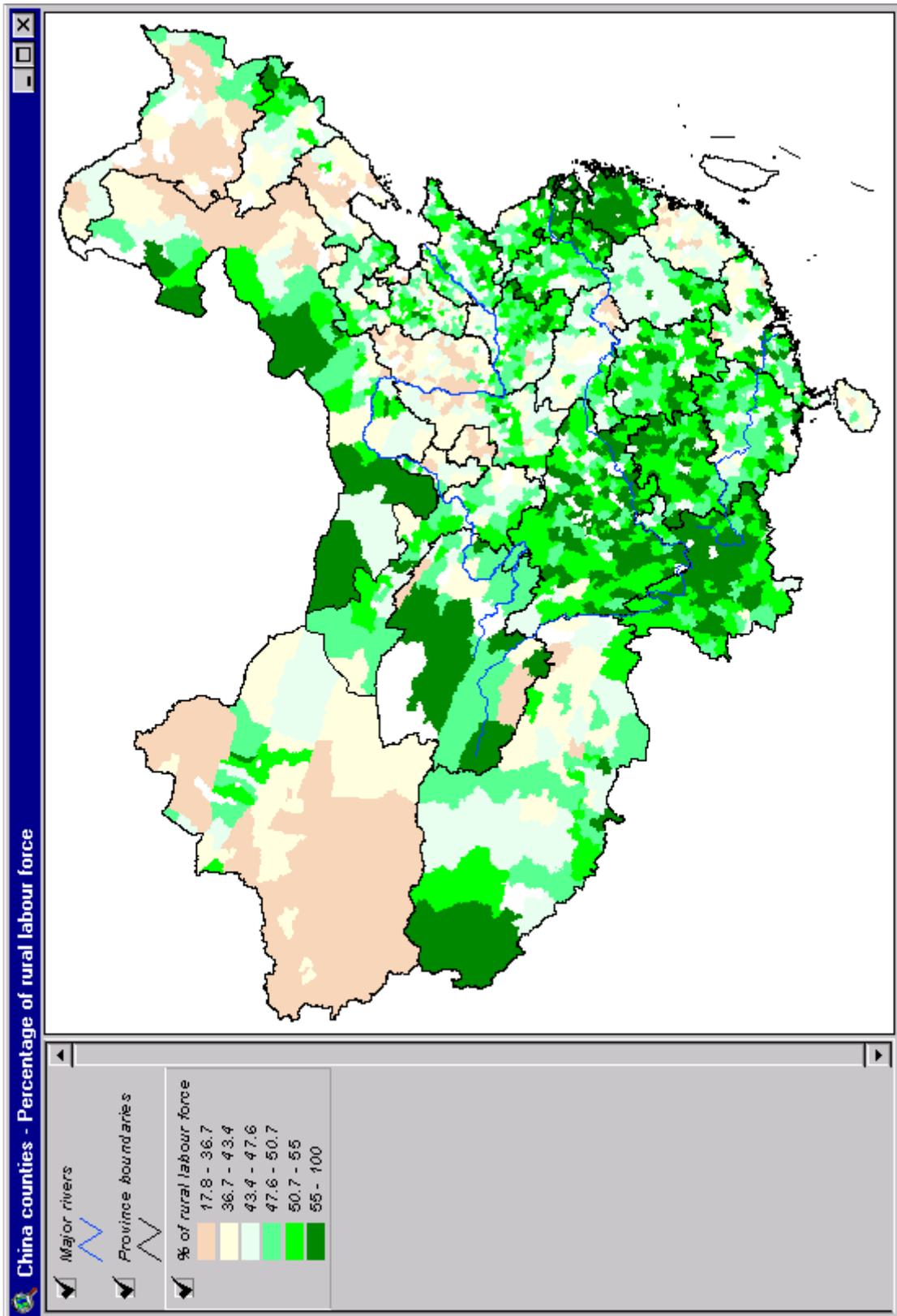


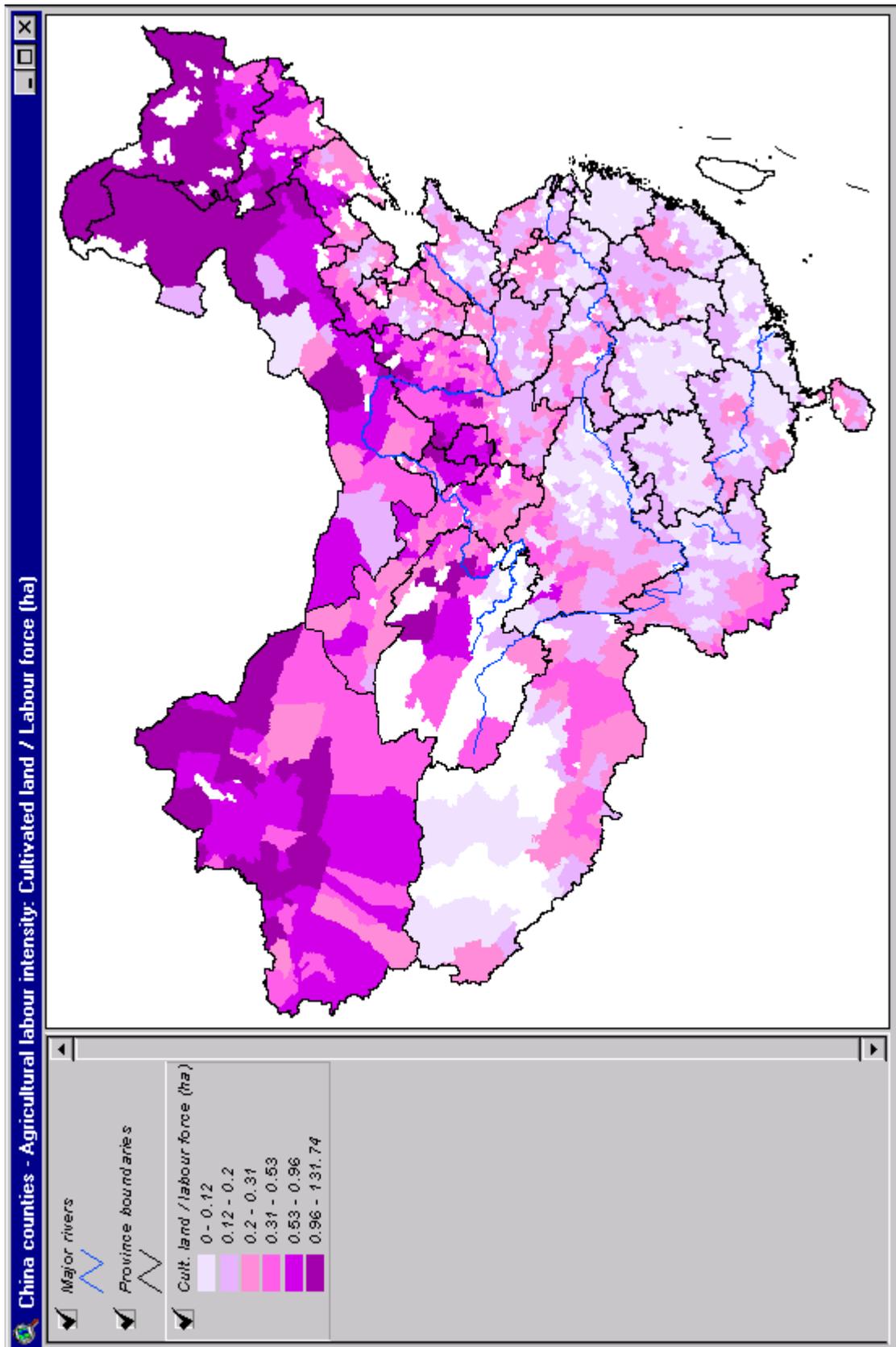


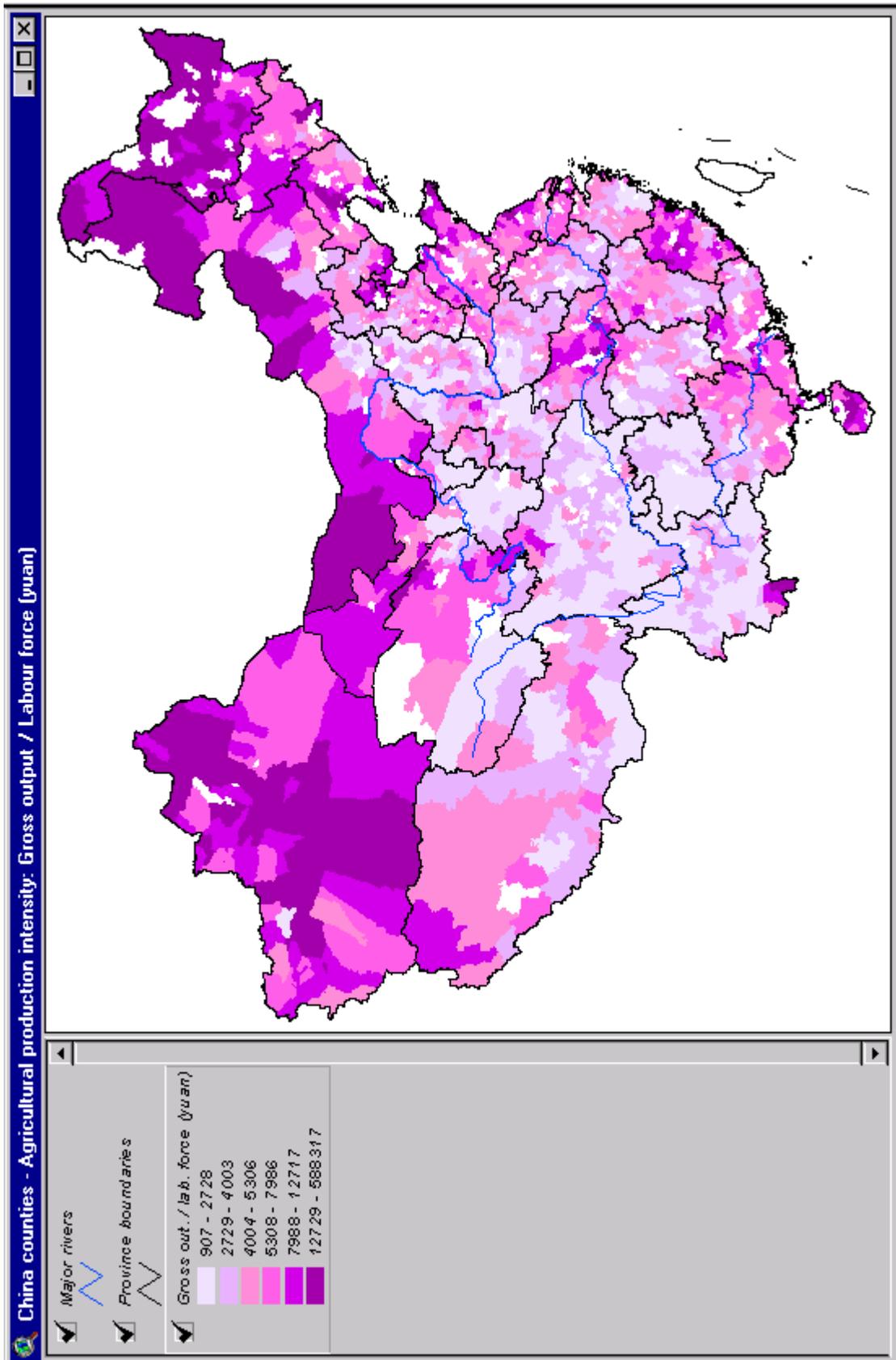


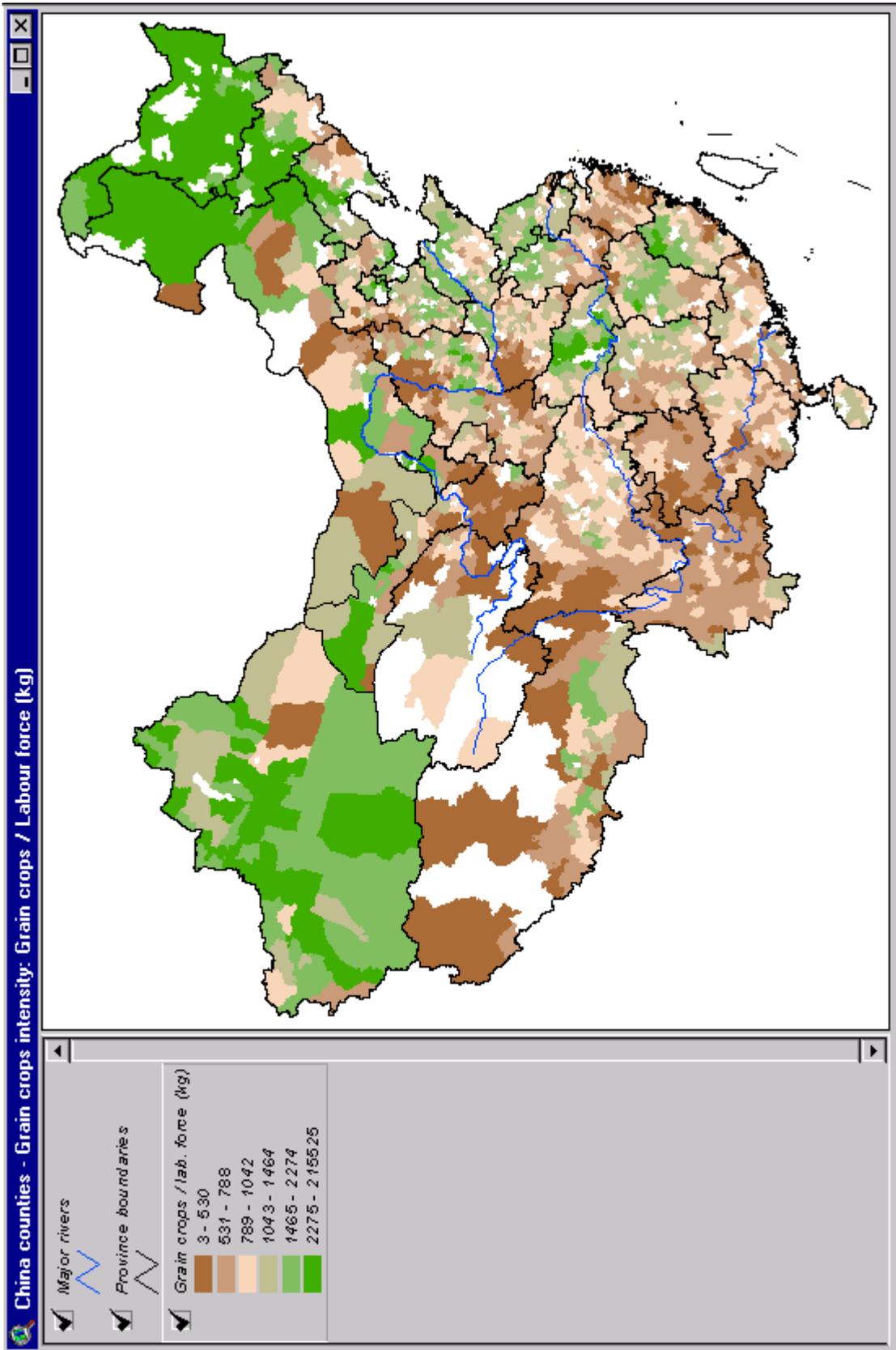








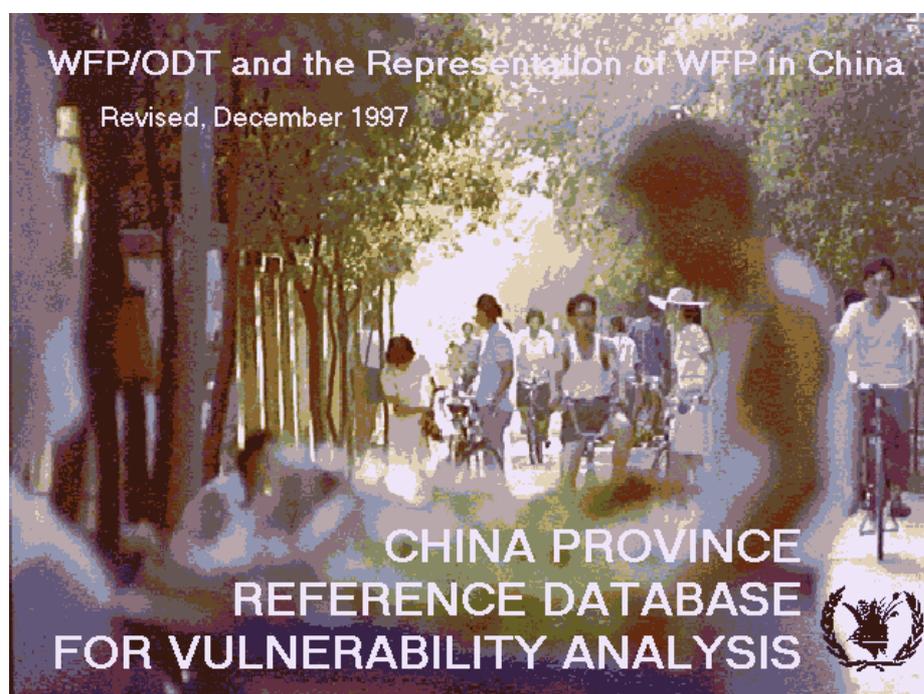






**CHINA PROVINCE REFERENCE DATABASE  
FOR VULNERABILITY ANALYSIS**

**DMVCHINA**



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## CHINA PROVINCE REFERENCE DATABASE FOR VULNERABILITY ANALYSIS

### DMVCHINA

(revised version, December 1997)

### HOW TO USE DMVCHINA

1.

The China Province Reference Database for Vulnerability Analysis is compiled using DMV (version 2.1), a software kindly provided by FAO. Please note that DMV is a DOS environment program.

2.

To install DMVCHINA run the following steps:

- a. Insert the diskette named DMVCHINA into your drive A:
- b. Type A: followed by Enter
- c. Type DMV\_INST followed by Enter
- d. Automatically the software will create in your disk C: a directory DMVCHINA and several subdirectories

3.

To run DMVCHINA:

- a. Type C:
- b. Type cd \DMVCHINA
- c. Run DMVCHINA
- d. A first screen with the title of the program, the version number, the author and the producer will appear
- e. A second WFP personalized screen will appear
- f. A third screen with the China Province Maps will be drawn
- g. At this point click with your mouse into the item "Data" of the menubar
- h. By default you are into the first subject (VULNERABILITY AND RISK ANALYSIS OUTPUTS).
- i. If you want to get a general overview of the available subjects please click into the item "Change Database" of the menu Data. (see also annex 1 of this document: **DMV\_DOC1.XLS**)
- j. Click on one specific subject to select a new database

- k. The China empty map will appear again
- l. To select a Category click again into “Data” and
- m. Click into “Change Category”
- n. “China” will appear as a single item menu, please confirm it
- o. Confirm which Category you want
- p. At this point you can select the Variable you want and automatically a map will be drawn (see annex 2 listing the entire content of the database: **DMV\_DOC2.XLS** and annex 3: **DMV\_DOC3.XLS** containing an alphabetical index of the variables ).
- q. If you want to overlay additional geographical features, click into “Overlay” and then “Select” choosing the features you want to display.
- r. If you want to get more personalized maps, i.e. changing the palette, the classification and so on, please refer to the DMV manual (annex 3: **DMV2\_1.DOC**).

## CHINA PROVINCE DATABASE FOR VULNERABILITY ANALYSIS DMVCHINA

### MAIN MENU SUMMARY

SUBJECT	DATA FILE	CONFIG FILE	DATABASE TITLE
Risks/Vulnerability	RISK.DAF	01RISK.DCF	VULNERABILITY AND RISK ANALYSIS OUTPUTS
Population	APOLAF05.DAF ADDIT05.DAF	02APOL05.DCF 03ADDI05.DCF	POPULATION - Population and labour force POPULATION - Demographic and education indicators
Income	AAINPC92.DAF AVNIPC05.DAF LIEXP05.DAF PECASO05.DAF PECASOIN.DAF POPDCG05.DAF	04AAIN92.DCF 05AVNI05.DCF 06LIEX05.DCF 07PECA05.DCF 08PECAIN.DCF 09POPD05.DCF	INCOME - Per capita urban and rural average income INCOME - Composition of rural net income INCOME - Per capita living expenditure (farmers) INCOME - Per capita consumptions (agric. and non-agric.) INCOME - Per capita consumption indices, 1990=100 INCOME - Possession of principal goods (farmers)
Health	HEBEPE05.DAF HEBEPEPC.DAF	10HEBE05.DCF 11HEBEPC.DCF	HEALTH - Health care institutions, beds and personnel HEALTH - Per capita health care inst., beds and personnel
Nutrition	MALNU92.DAF BMIDIS92.DAF FOCOPA92.DAF NUIIN92.DAF NUIIN%D92.DAF ANEMIA92.DAF NUT_ANEM.DAF NUT_CALC.DAF NUT_RIBO.DAF NUT_VITA.DAF	12MALN92.DCF 13BMID92.DCF 14FOCO92.DCF 15NUIIN92.DCF 16NU%D92.DCF 17ANEM92.DCF 18NUT_AN.DCF 19NUT_CA.DCF 20NUT_RI.DCF 21NUT_VI.DCF	NUTRITION - Underdeveloped children NUTRITION - Body mass index, height and weight (adults) NUTRITION - Food consumption patterns by income levels NUTRITION - Nutrient intake by income level (abs. figures) NUTRITION - Energy, proteine, fat intake (% of dietary) NUTRITION - Anemia prevalence NUTRITION - General matrix for anemia analysis NUTRITION - General matrix for calcium analysis NUTRITION - General matrix for riboflavin analysis "NUTRITION - General matrix for vit." "A" " analysis"
Agriculture and Production	SOAR_OAF.DAF SOAR_OPC.DAF SOAR_AAF.DAF SOAR_APC.DAF SOAR_YIE.DAF AVYICA05.DAF LIVEST05.DAF LIVESTPC.DAF TOOUVA05.DAF PCCOMF05.DAF	22SO_OAF.DCF 23SO_OPC.DCF 24SO_AAF.DCF 25SO_APC.DCF 26SO_YIE.DCF 27AVYI05.DCF 28LIVE05.DCF 29LIVEPC.DCF 30TOOU05.DCF 31PCCO05.DCF	AGRICULTURE - Major crops outputs - absolute figures AGRICULTURE - Per capita major crops outputs AGRICULTURE - Major crops sown areas - absolute figures AGRICULTURE - Per capita major crops sown areas AGRICULTURE - Major crops yields AGRICULTURE - Per capita production of major farm crops AGRICULTURE - Num. of domestic animals - livestock output AGRICULTURE - Per capita domestic animals - livestock out AGRICULTURE - Output value of agric., husbandry, fishery AGRICULTURE - Per capita cons. of major foods (farmers)
Land use and Environment	CULLAN05.DAF CULLANPC.DAF RHPCCL05.DAF IRRIMA05.DAF IRRIMAPC.DAF ARAFND05.DAF ARAFNDPC.DAF	32CULL05.DCF 33CULLPC.DCF 34RHPC05.DCF 35IRRI05.DCF 36IRRI05.DCF 37ARAF05.DCF 38ARAFPC.DCF	LAND USE - Cultivated land areas LAND USE - Per capita cultivated land areas LAND USE - Per capita area of cultivated land (rural hhs) LAND USE - Irrigated farmland and agriculture machinery LAND USE - Per capita irrigated farmland and agr. machinery LAND USE - Areas covered and affected by natural disasters LAND USE - Per capita areas affected by natural disasters
Prices	RRCPUR05.DAF PRICEDEF.DAF	39RRCP05.DCF 40PRIDEF.DCF	PRICES - Consumer and retail price index (rural - urban) PRICES - Agricultural / non-agricultural price deflators

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## ANNEX 2

# CHINA PROVINCE DATABASE FOR VULNERABILITY ANALYSIS DMVCHINA

## DATABASE CONTENTS BY SUBJECTS

SUBJECT	Risks/Vulnerability
DATA FILE	RISK.DAF
DATABASE TITLE	<b>VULNERABILITY AND RISK ANALYSIS OUTPUTS</b>
VARIABLES	
1	Vulnerability analysis
2	Disaster prone areas
3	Agriculture production and crops performances risks
4	Fixed assets availability
5	Sources of rural income
6	Rural net income dynamic by component
7	Prices trends and rural/urban trend ratio
8	Rural expenditure composition
9	Possession of durable consumer goods in rural areas
10	Health conditions
11	Children malnutrition
12	Adult undernourishment and obesity
13	Dietary patterns
14	Anemia patterns
15	Calcium deficiency
16	Retinol equivalent and riboflavin deficit

SUBJECT	Population
DATA FILE	APOLAF05.DAF
DATABASE TITLE	<b>POPULATION - Population and labour force</b>
VARIABLES	
1	Total population ('000)
2	Agricultural population ('000)
3	Number of townships
4	Number of towns
5	Number of villages
6	Rural households ('000)
7	Rural population ('000)
8	Townships and villages labour force ('000)
9	Tow. & Vill. female labour force ('000)
10	Tow. & Vill. labour force for agric., forestry... ('000)
11	Agricultural population / Total population
12	Rural population / Total population
13	Rural households dimension
14	Tow. & Vill. female labour force / Total labour force
15	Agricultural labour force / Total labour force

SUBJECT	Population
DATA FILE	ADDITI05.DAF
DATABASE TITLE	<b>POPULATION - Demographic and education indicators</b>
VARIABLES	
1	Total population (year end) ('000 persons)
2	Birth rate (%)
3	Death rate (%)
4	Natural growth rate (%)
5	Infant mortality rate (%)
6	Under 5 years mortality rate (%)
7	Iodine insufficiency (8-10 years old students, %)
8	Ratio of children who can enter school U+R (%)
9	Literacy rate U+R, male (%)
10	Literacy rate U+R, female (%)
11	% of rural pop. using tap water (rural pop. = 100)

SUBJECT Income  
 DATA FILE AAINPC92.DAF  
 DATABASE TITLE **INCOME - Per capita urban and rural average income**  
 VARIABLES

1	Average income per capita (yuan) - urban and rural
2	Average income per capita (yuan) - urban
3	Average income per capita (yuan) - rural

SUBJECT Income  
 DATA FILE AVNIPC05.DAF  
 DATABASE TITLE **INCOME - Composition of rural net income**  
 VARIABLES

1	Net income per capita (yuan)
2	Basic income (yuan)
3	Payment for labour (yuan)
4	Household business (yuan)
5	Transferred income (yuan)
6	Property income (yuan)
7	Basic income (% of total net income)
8	Payment for labour (% of total net income)
9	Household business (% of total net income)
10	Transferred income (% of total net income)
11	Property income (% of total net income)

SUBJECT Income  
 DATA FILE LIEXPC05.DAF  
 DATABASE TITLE **INCOME - Per capita living expenditure (farmers)**  
 VARIABLES

1	Per capita goods expenditure (yuan)
2	Per capita food expenditure (yuan)
3	Per capita clothes expenditure (yuan)
4	Per capita residence expenditure (yuan)
5	Per capita HH' facilities and services exp. (yuan)
6	Per capita medical treatment and health care exp. (yuan)
7	Per capita communications expenditure (yuan)
8	Per capita cultural, educational, ... expenditure (yuan)
9	Per capita other commodities and services exp. (yuan)
10	Per capita total living cash expenditure (yuan)
11	Per capita food cash expenditure (yuan)
12	Per capita food expenditure (% tot. exp.)
13	Per capita clothes expenditure (% tot. exp.)
14	Per capita residence expenditure (%)
15	Per capita HH' facilities and services exp. (%)
16	Per capita medical treatment and health care exp. (%)
17	Per capita communications expenditure (%)
18	Per capita cultural, educational, ... expenditure (%)
19	Per capita other commodities and services exp. (%)
20	Per capita food cash expenditure (% tot. exp.)

SUBJECT Income  
 DATA FILE PECASO05.DAF  
 DATABASE TITLE **INCOME - Per capita consumptions (agric. and non-agric.)**  
 VARIABLES

1	All residents per capita consumption (yuan)
2	Agricultural residents per capita consumption (yuan)
3	Non-agric. residents per capita consumption (yuan)
4	Non-agric./agric. residents per capita consumption
5	All residents per capita consumption (prec. year=100)
6	Agric. residents per capita cons. (prec. year=100)
7	Non-agric. residents per capita cons. (prec. year=100)

SUBJECT Income  
 DATA FILE PECASOIN.DAF  
 DATABASE TITLE **INCOME - Per capita consumption indices, 1990=100**  
 VARIABLES

1	All res. per capita cons. (1990=100, current prices)
2	Agric. res. per capita cons. (1990=100, current prices)
3	Non-agric. res. per capita cons (1990=100, curr. prices)

- 4 All res. per capita cons. (1990=100, comp. prices)
- 5 Agric. res. per capita cons. (1990=100, comp. prices)
- 6 Non-agric. res. per capita cons (1990=100, comp. prices)
- 7 Agric/Non-agric per capita cons (1990=100, comp.prices)

SUBJECT Income  
 DATA FILE POPDCG05.DAF  
 DATABASE TITLE **INCOME - Possession of principal goods (farmers)**  
 VARIABLES

- 1 Possession of bicycles per 100 farmers
- 2 Possession of sewing machines per 100 farmers
- 3 Possession of radio sets per 100 farmers
- 4 Possession of clocks and watches per 100 farmers
- 5 Possession of television sets per 100 farmers
- 6 Possession of recorders per 100 farmers
- 7 Possession of electric fans per 100 farmers
- 8 Composite indicator of farmers' goods possession

SUBJECT Health  
 DATA FILE HEBEPE05.DAF  
 DATABASE TITLE **HEALTH - Health care institutions, beds and personnel**  
 VARIABLES

- 1 Health care institutions
- 2 Hospitals
- 3 Beds ('000)
- 4 Beds in hospitals ('000)
- 5 Personnel ( '000 persons)
- 6 Medical technical personnel ('000 persons)

SUBJECT Health  
 DATA FILE HEBEPEPC.DAF  
 DATABASE TITLE **HEALTH - Per capita health care instit., beds and personnel**  
 VARIABLES

- 1 Health care institutions (x '00000 people)
- 2 Hospitals (x '00000 people)
- 3 Beds (x '0000 people)
- 4 Beds in hospitals (x '0000 people)
- 5 Personnel ( x '0000 people)
- 6 Medical technical personnel (x '0000 people)

SUBJECT Nutrition  
 DATA FILE FOCOPA92.DAF  
 DATABASE TITLE **NUTRITION - Food consumption patterns by income levels**  
 VARIABLES

- 1 Rice prod (Total Income) (g/reference man/day)
- 2 Rice prod (Low Income) (g/reference man/day)
- 3 Rice prod (Mid Income) (g/reference man/day)
- 4 Rice prod (High Income) (g/reference man/day)
- 5 Wheat prod (Total Income) (g/reference man/day)
- 6 Wheat prod (Low Income) (g/reference man/day)
- 7 Wheat prod (Mid Income) (g/reference man/day)
- 8 Wheat prod (High Income) (g/reference man/day)
- 9 Other cereals prod (Total Income) (g/ref. man/day)
- 10 Other cereals prod (Low Income) (g/reference man/day)
- 11 Other cereals prod (Mid Income) (g/reference man/day)
- 12 Other cereals prod (High Income) (g/ref. man/day)
- 13 Starch tubers prod (Total Income) (g/ref. man/day)
- 14 Starch tubers prod (Low Income) (g/reference man/day)
- 15 Starch tubers prod (Mid Income) (g/reference man/day)
- 16 Starch tubers prod (High Income) (g/ref. man/day)
- 17 Dark Colour Veg prod (Total Income) (g/ref. man/day)
- 18 Dark Colour Veg prod (Low Income) (g/ref. man/day)
- 19 Dark Colour Veg prod (Mid Income) (g/ref. man/day)
- 20 Dark Colour Veg prod (High Income) (g/ref. man/day)
- 21 Light Colour Veg prod (Total Income) (g/ref. man/day)
- 22 Light Colour Veg prod (Low Income) (g/ref. man/day)
- 23 Light Colour Veg prod (Mid Income) (g/ref. man/day)
- 24 Light Colour Veg prod (High Income) (g/ref. man/day)

25 Pork (Total Income) (g/reference man/day)  
 26 Pork (Low Income) (g/reference man/day)  
 27 Pork (Mid Income) (g/reference man/day)  
 28 Pork (High Income) (g/reference man/day)  
 29 Other Meats (Total Income) (g/reference man/day)  
 30 Other Meats (Low Income) (g/reference man/day)  
 31 Other Meats (Mid Income) (g/reference man/day)  
 32 Other Meats (High Income) (g/reference man/day)  
 33 Organ Meat (Total Income) (g/reference man/day)  
 34 Organ Meat (Low Income) (g/reference man/day)  
 35 Organ Meat (Mid Income) (g/reference man/day)  
 36 Organ Meat (High Income) (g/reference man/day)  
 37 Poultry (Total Income) (g/reference man/day)  
 38 Poultry (Low Income) (g/reference man/day)  
 39 Poultry (Mid Income) (g/reference man/day)  
 40 Poultry (High Income) (g/reference man/day)  
 41 Milk prod (Total Income) (g/reference man/day)  
 42 Milk prod (Low Income) (g/reference man/day)  
 43 Milk prod (Mid Income) (g/reference man/day)  
 44 Milk prod (High Income) (g/reference man/day)  
 45 Eggs prod (Total Income) (g/reference man/day)  
 46 Eggs prod (Low Income) (g/reference man/day)  
 47 Eggs prod (Mid Income) (g/reference man/day)  
 48 Eggs prod (High Income) (g/reference man/day)  
 49 Fish and Shellfish Prod (Total Income) (g/ref. man/day)  
 50 Fish and Shellfish Prod (Low Income) (g/ref. man/day)  
 51 Fish and Shellfish Prod (Mid Income) (g/ref. man/day)  
 52 Fish and Shellfish Prod (High Income) (g/ref. man/day)  
 53 Vegetable Oil (Total Income) (g/reference man/day)  
 54 Vegetable Oil (Low Income) (g/reference man/day)  
 55 Vegetable Oil (Mid Income) (g/reference man/day)  
 56 Vegetable Oil (High Income) (g/reference man/day)  
 57 Animal Fat (Total Income) (g/reference man/day)  
 58 Animal Fat (Low Income) (g/reference man/day)  
 59 Animal Fat (Mid Income) (g/reference man/day)  
 60 Animal Fat (High Income) (g/reference man/day)

SUBJECT Nutrition  
 DATA FILE NUININ92.DAF  
 DATABASE TITLE **NUTRITION - Nutrient intake by income level (abs. figures)**  
 VARIABLES

1 Energy (Total income) (kcal) (ref. man)  
 2 Energy (Total income) SD (kcal) (ref. man)  
 3 Energy (Low income) (kcal) (ref. man)  
 4 Energy (Low income) SD (kcal) (ref. man)  
 5 Energy (Mid income) (kcal) (ref. man)  
 6 Energy (Mid income) SD (kcal) (ref. man)  
 7 Energy (High income) (kcal) (ref. man)  
 8 Energy (High income) SD (kcal) (ref. man)  
 9 Protein (Total income) (g) (ref. man)  
 10 Protein (Total income) SD (g) (ref. man)  
 11 Protein (Low income) (g) (ref. man)  
 12 Protein (Low income) SD (g) (ref. man)  
 13 Protein (Mid income) (g) (ref. man)  
 14 Protein (Mid income) SD (g) (ref. man)  
 15 Protein (High income) (g) (ref. man)  
 16 Protein (High income) SD (g) (ref. man)  
 17 Fat (Total income) (g) (ref. man)  
 18 Fat (Total income) SD (g) (ref. man)  
 19 Fat (Low income) (g) (ref. man)  
 20 Fat (Low income) SD (g) (ref. man)  
 21 Fat (Mid income) (g) (ref. man)  
 22 Fat (Mid income) SD (g) (ref. man)  
 23 Fat (High income) (g) (ref. man)  
 24 Fat (High income) SD (g) (ref. man)  
 25 Retinol (Total income) (µg) (ref. man)  
 26 Retinol (Total income) SD (µg) (ref. man)  
 27 Retinol (Low income) (µg) (ref. man)  
 28 Retinol (Low income) SD (µg) (ref. man)  
 29 Retinol (Mid income) (µg) (ref. man)  
 30 Retinol (Mid income) SD (µg) (ref. man)  
 31 Retinol (High income) (µg) (ref. man)  
 32 Retinol (High income) SD (µg) (ref. man)  
 33 Retinol Eq. (Total income) (µg) (ref. man)

34 Retinol Eq. (Total income) SD ( $\mu\text{g}$ ) (ref. man)  
35 Retinol Eq. (Low income) ( $\mu\text{g}$ ) (ref. man)  
36 Retinol Eq. (Low income) SD ( $\mu\text{g}$ ) (ref. man)  
37 Retinol Eq. (Mid income) ( $\mu\text{g}$ ) (ref. man)  
38 Retinol Eq. (Mid income) SD ( $\mu\text{g}$ ) (ref. man)  
39 Retinol Eq. (High income) ( $\mu\text{g}$ ) (ref. man)  
40 Retinol Eq. (High income) SD ( $\mu\text{g}$ ) (ref. man)  
41 Riboflavin (Total income) (mg) (ref. man)  
42 Riboflavin (Total income) SD (g) (ref. man)  
43 Riboflavin (Low income) (mg) (ref. man)  
44 Riboflavin (Low income) SD (mg) (ref. man)  
45 Riboflavin (Mid income) (mg) (ref. man)  
46 Riboflavin (Mid income) SD (mg) (ref. man)  
47 Riboflavin (High income) (mg) (ref. man)  
48 Riboflavin (High income) SD (mg) (ref. man)  
49 Calcium (Total income) (mg) (ref. man)  
50 Calcium (Total income) SD (mg) (ref. man)  
51 Calcium (Low income) (mg) (ref. man)  
52 Calcium (Low income) SD (mg) (ref. man)  
53 Calcium (Mid income) (mg) (ref. man)  
54 Calcium (Mid income) SD (mg) (ref. man)  
55 Calcium (High income) (mg) (ref. man)  
56 Calcium (High income) SD (mg) (ref. man)  
57 Iron (Total income) (mg) (ref. man)  
58 Iron (Total income) SD (mg) (ref. man)  
59 Iron (Low income) (mg) (ref. man)  
60 Iron (Low income) SD (mg) (ref. man)  
61 Iron (Mid income) (mg) (ref. man)  
62 Iron (Mid income) SD (mg) (ref. man)  
63 Iron (High income) (mg) (ref. man)  
64 Iron (High income) SD (mg) (ref. man)

SUBJECT Nutrition  
DATA FILE NUIN%D92.DAF  
DATABASE TITLE **NUTRITION - Energy, proteine, fat intake (% of dietary)**  
VARIABLES

1 Energy by cereals (Total income) (% of dietary)  
2 Energy by cereals (Total income) SD (% of dietary)  
3 Energy by cereals (Low income) (% of dietary)  
4 Energy by cereals (Low income) SD (% of dietary)  
5 Energy by cereals (Mid income) (% of dietary)  
6 Energy by cereals (Mid income) SD (% of dietary)  
7 Energy by cereals (High income) (% of dietary)  
8 Energy by cereals (High income) SD (% of dietary)  
9 Protein by cereals (Total income) (% of dietary)  
10 Protein by cereals (Total income) SD (% of dietary)  
11 Protein by cereals (Low income) (% of dietary)  
12 Protein by cereals (Low income) SD (% of dietary)  
13 Protein by cereals (Mid income) (% of dietary)  
14 Protein by cereals (Mid income) SD (% of dietary)  
15 Protein by cereals (High income) (% of dietary)  
16 Protein by cereals (High income) SD (% of dietary)  
17 Protein by Beans/Peas (Total income) (% of dietary)  
18 Protein by Beans/Peas (Total income) SD (% of dietary)  
19 Protein by Beans/Peas (Low income) (% of dietary)  
20 Protein by Beans/Peas (Low income) SD (% of dietary)  
21 Protein by Beans/Peas (Mid income) (% of dietary)  
22 Protein by Beans/Peas (Mid income) SD (% of dietary)  
23 Protein by Beans/Peas (High income) (% of dietary)  
24 Protein by Beans/Peas (High income) SD (% of dietary)  
25 Protein by Animal Food (Total income) (% of dietary)  
26 Protein by Animal Food (Total income) SD (% of dietary)  
27 Protein by Animal Food (Low income) (% of dietary)  
28 Protein by Animal Food (Low income) SD (% of dietary)  
29 Protein by Animal Food (Mid income) (% of dietary)  
30 Protein by Animal Food (Mid income) SD (% of dietary)  
31 Protein by Animal Food (High income) (% of dietary)  
32 Protein by Animal Food (High income) SD (% of dietary)  
33 Fat by Animal Food (Total income) (% of dietary)  
34 Fat by Animal Food (Total income) SD (% of dietary)  
35 Fat by Animal Food (Low income) (% of dietary)  
36 Fat by Animal Food (Low income) SD (% of dietary)  
37 Fat by Animal Food (Mid income) (% of dietary)  
38 Fat by Animal Food (Mid income) SD (% of dietary)

39 Fat by Animal Food (High income) (% of dietary)  
40 Fat by Animal Food (High income) SD (% of dietary)  
41 Fat by Plant Food (Total income) (% of dietary)  
42 Fat by Plant Food (Total income) SD (% of dietary)  
43 Fat by Plant Food (Low income) (% of dietary)  
44 Fat by Plant Food (Low income) SD (% of dietary)  
45 Fat by Plant Food (Mid income) (% of dietary)  
46 Fat by Plant Food (Mid income) SD (% of dietary)  
47 Fat by Plant Food (High income) (% of dietary)  
48 Fat by Plant Food (High income) SD (% of dietary)

SUBJECT Nutrition  
DATA FILE BMIDIS92.DAF  
DATABASE TITLE **NUTRITION - Body mass index, height and weight (adults)**  
VARIABLES

1 BMI - Adults - (urban and rural)<18.5 (%)  
2 BMI - Adults - (urban and rural) 18.5-25.0 (%)  
3 BMI - Adults - (urban and rural) >25 (%)  
4 BMI - Adults - (Urban)<18.5 (%)  
5 BMI - Adults - (Urban) 18.5-25.0 (%)  
6 BMI - Adults - (Urban) >25 (%)  
7 BMI - Adults - (Rural)<18.5 (%)  
8 BMI - Adults - (Rural) 18.5-25.0 (%)  
9 BMI - Adults - (Rural) >25 (%)  
10 BMI - Male Adults - (urban and rural)<18.5 (%)  
11 BMI - Male Adults - (urban and rural) 18.5-25.0 (%)  
12 BMI - Male Adults - (urban and rural) >25 (%)  
13 BMI - Male Adults - (Urban)<18.5 (%)  
14 BMI - Male Adults - (Urban) 18.5-25.0 (%)  
15 BMI - Male Adults - (Urban) >25 (%)  
16 BMI - Male Adults - (Rural)<18.5 (%)  
17 BMI - Male Adults - (Rural) 18.5-25.0 (%)  
18 BMI - Male Adults - (Rural) >25 (%)  
19 BMI - Female Adults - (urban and rural)<18.5 (%)  
20 BMI - Female Adults - (urban and rural) 18.5-25.0 (%)  
21 BMI - Female Adults - (urban and rural) >25 (%)  
22 BMI - Female Adults - (Urban)<18.5 (%)  
23 BMI - Female Adults - (Urban) 18.5-25.0(%)  
24 BMI - Female Adults - (Urban) >25 (%)  
25 BMI - Female Adults - (Rural)<18.5 (%)  
26 BMI - Female Adults - (Rural) 18.5-25.0 (%)  
27 BMI - Female Adults - (Rural) >25 (%)  
28 BMI - Adults - (urban and rural) mean (kg/m2)  
29 BMI - Adults - (urban and rural) SD (kg/m2)  
30 BMI - Adults - Urban mean (kg/m2)  
31 BMI - Adults - Urban SD (kg/m2)  
32 BMI - Adults - Rural mean (kg/m2)  
33 BMI - Adults - Rural SD (kg/m2)  
34 BMI - Male Adults - (urban and rural) mean (kg/m2)  
35 BMI - Male Adults - (urban and rural) SD (kg/m2)  
36 BMI - Male Adults - Urban mean (kg/m2)  
37 BMI - Male Adults - Urban SD (kg/m2)  
38 BMI - Male Adults - Rural mean (kg/m2)  
39 BMI - Male Adults - Rural SD (kg/m2)  
40 BMI - Female Adults - (urban and rural) mean (kg/m2)  
41 BMI - Female Adults - (urban and rural) SD (kg/m2)  
42 BMI - Female Adults - Urban mean (kg/m2)  
43 BMI - Female Adults - Urban SD (kg/m2)  
44 BMI - Female Adults - Rural mean (kg/m2)  
45 BMI - Female Adults - Rural SD (kg/m2)  
46 Height Adults (urban and rural) mean (cm)  
47 Height Adults (urban and rural) SD (cm)  
48 Height Adults Urban mean (cm)  
49 Height Adults Urban SD (cm)  
50 Height Adults Rural mean (cm)  
51 Height Adults Rural SD (cm)  
52 Male Height Adults (urban and rural) mean (cm)  
53 Male Height Adults (urban and rural) SD (cm)  
54 Male Height Adults Urban mean (cm)  
55 Male Height Adults Urban SD (cm)  
56 Male Height Adults Rural mean (cm)  
57 Male Height Adults Rural SD (cm)  
58 Female Height Adults (urban and rural) mean (cm)  
59 Female Height Adults (urban and rural) SD (cm)

60	Female Height Adults Urban mean (cm)
61	Female Height Adults Urban SD (cm)
62	Female Height Adults Rural mean (cm)
63	Female Height Adults Rural SD (cm)
64	Weight Adults (urban and rural) mean (kg)
65	Weight Adults (urban and rural) SD (kg)
66	Weight Adults Urban mean (kg)
67	Weight Adults Urban SD (kg)
68	Weight Adults Rural mean (kg)
69	Weight Adults Rural SD (kg)
70	Male Weight Adults (urban and rural) mean (kg)
71	Male Weight Adults (urban and rural) SD (kg)
72	Male Weight Adults Urban mean (kg)
73	Male Weight Adults Urban SD (kg)
74	Male Weight Adults Rural mean (kg)
75	Male Weight Adults Rural SD (kg)
76	Female Weight Adults (urban and rural) mean (kg)
77	Female Weight Adults (urban and rural) SD (kg)
78	Female Weight Adults Urban mean (kg)
79	Female Weight Adults Urban SD (kg)
80	Female Weight Adults Rural mean (kg)
81	Female Weight Adults Rural SD (kg)

SUBJECT Nutrition  
DATA FILE ANEMIA92.DAF  
DATABASE TITLE **NUTRITION - Anemia prevalence**  
VARIABLES

1	Children 0-6 (U+R) Anemia %
2	Children 0-6 (Urban) Anemia %
3	Children 0-6 (Rural) Anemia %
4	Children 6-14 (U+R) Anemia %
5	Children 6-14 (Urban) Anemia %
6	Children 6-14 (Rural) Anemia %
7	Male adult (U+R) Anemia %
8	Male adult (Urban) Anemia %
9	Male adult (Rural) Anemia %
10	Female adult (U+R) Anemia %
11	Female adult (Urban) Anemia %
12	Female adult (Rural) Anemia %

SUBJECT Nutrition  
DATA FILE NUT\_ANEM.DAF  
DATABASE TITLE **NUTRITION - General matrix for anemia analysis**  
VARIABLES

1	Average income per capita (yuan) - rural
2	Female adult (Rural) Anemia %
3	Male adult (Rural) Anemia %
4	Iron (Total) mean (mg) (reference man)
5	Iron (Low) mean (mg) (reference man)
6	Iron (Mid) mean (mg) (reference man)
7	Iron (High) mean (mg) (reference man)
8	Protein by Animal Food (Total) mean
9	Protein by Animal Food (Low) mean
10	Protein by Animal Food (Mid) mean
11	Protein by Animal Food (High) mean
12	Eggs/Prod (Total) (g/reference man/day)
13	Eggs/Prod (Low) (g/reference man/day)
14	Eggs/Prod (Mid) (g/reference man/day)
15	Eggs/Prod (High) (g/reference man/day)
16	Dark Colour Veg/Prod (Total) (g/reference man/day)

SUBJECT Nutrition  
DATA FILE NUT\_CALC.DAF  
DATABASE TITLE **NUTRITION - General matrix for calcium analysis**  
VARIABLES

1	Average income per capita (yuan) - rural
2	Calcium (Total) mean (mg) (reference man)
3	Calcium (Low) mean (mg) (reference man)
4	Calcium (Mid) mean (mg) (reference man)
5	Calcium (High) mean (mg) (reference man)

6 Milk/Prod (Total) (g/reference man/day)  
7 Milk/Prod (Low) (g/reference man/day)  
8 Milk/Prod (Mid) (g/reference man/day)  
9 Milk/Prod (High) (g/reference man/day)  
10 Protein by Beans/Peas (Total) mean  
11 Protein by Beans/Peas (Low) mean  
12 Protein by Beans/Peas (Mid) mean  
13 Protein by Beans/Peas (High) mean  
14 Fish and Shellfish Prod (Total) (g/reference man/day)  
15 Fish and Shellfish Prod (Low) (g/reference man/day)  
16 Fish and Shellfish Prod (Mid) (g/reference man/day)  
17 Fish and Shellfish Prod (High) (g/reference man/day)  
18 Eggs/Prod (Total) (g/reference man/day)  
19 Eggs/Prod (Low) (g/reference man/day)  
20 Eggs/Prod (Mid) (g/reference man/day)  
21 Eggs/Prod (High) (g/reference man/day)

SUBJECT Nutrition  
DATA FILE NUT\_RIBO.DAF  
DATABASE TITLE **NUTRITION - General matrix for riboflavin analysis**  
VARIABLES

1 Average income per capita (yuan) - rural  
2 Riboflavin (Total) mean (mg) (reference man)  
3 Riboflavin (Low) mean (mg) (reference man)  
4 Riboflavin (Mid) mean (mg) (reference man)  
5 Riboflavin (High) mean (mg) (reference man)  
6 Organ Meat (Total) (g/reference man/day)  
7 Organ Meat (Low) (g/reference man/day)  
8 Organ Meat (Mid) (g/reference man/day)  
9 Organ Meat (High) (g/reference man/day)

SUBJECT Nutrition  
DATA FILE NUT\_VITA.DAF  
DATABASE TITLE **NUTRITION - General matrix for vit."A" analysis**  
VARIABLES

1 Average income per capita (yuan) - rural  
2 Retinol (Total) mean (µg) (reference man)  
3 Retinol (Low) mean (µg) (reference man)  
4 Retinol (Mid) mean (µg) (reference man)  
5 Retinol (High) mean (µg) (reference man)  
6 Ret. Eq. (Total) mean (µg) (reference man)  
7 Ret. Eq. (Low) mean (µg) (reference man)  
8 Ret. Eq. (Mid) mean (µg) (reference man)  
9 Ret. Eq. (High) mean (µg) (reference man)

SUBJECT Agriculture and Production  
DATA FILE SOAR\_OAF.DAF  
DATABASE TITLE **AGRICULTURE - Major crops outputs - absolute figures**  
VARIABLES

1 Food crops, total output ('0000 tons)  
2 Summer crops, total output ('0000 tons)  
3 Cereal crops, total output ('0000 tons)  
4 Rice, total output ('0000 tons)  
5 Wheat, total output ('0000 tons)  
6 Corn, total output ('0000 tons)  
7 Millet, total output ('0000 tons)  
8 Sorghum, total output ('0000 tons)  
9 Beans, total output ('0000 tons)  
10 Soybean, total output ('0000 tons)  
11 Tubers, total output ('0000 tons)  
12 Potato, total output ('0000 tons)  
13 Oil-bearing crops, total output (tons)  
14 Peanuts, total output (tons)  
15 Rapeseed, total output (tons)  
16 Vegetable crops, total output (tons)  
17 Melon crops (for fruit), total output (tons)  
18 Tea, total output (tons)  
19 Fruits, output (tons)

SUBJECT Agriculture and Production  
DATA FILE SOAR\_OPC.DAF  
DATABASE TITLE **AGRICULTURE - Per capita major crops outputs**  
VARIABLES

1	Per capita food crops, total output (kgs)
2	Per capita summer crops, total output (kgs)
3	Per capita cereal crops, total output (kgs)
4	Per capita rice, total output (kgs)
5	Per capita wheat, total output (kgs)
6	Per capita corn, total output (kgs)
7	Per capita millet, total output (kgs)
8	Per capita sorghum, total output (kgs)
9	Per capita beans, total output (kgs)
10	Per capita soybean, total output (kgs)
11	Per capita tubers, total output (kgs)
12	Per capita potato, total output (kgs)
13	Per capita oil-bearing crops, total output (kgs)
14	Per capita peanuts, total output (kgs)
15	Per capita rapeseed, total output (kgs)
16	Per capita vegetable crops, total output (kgs)
17	Per capita melon crops (for fruit), tot out (kgs)
18	Per capita tea, total output (kgs)
19	Per capita fruits, output (kgs)

SUBJECT Agriculture and Production  
DATA FILE SOAR\_AAF.DAF  
DATABASE TITLE **AGRICULTURE - Major crops sown areas - absolute figures**  
VARIABLES

1	Food crops, sown area ('000 ha)
2	Summer crops, sown area ('000 ha)
3	Cereal crops, sown area ('000 ha)
4	Rice, sown area ('000 ha)
5	Wheat, sown area ('000 ha)
6	Corn, sown area ('000 ha)
7	Millet, sown area ('000 ha)
8	Sorghum, sown area ('000 ha)
9	Beans, sown area ('000 ha)
10	Soybean, sown area ('000 ha)
11	Tubers, sown area ('000 ha)
12	Potato, sown area ('000 ha)
13	Oil-bearing crops, sown area ('000 ha)
14	Peanuts, sown area ('000 ha)
15	Rapeseed, sown area ('000 ha)
16	Vegetable crops, sown area ('000 ha)
17	Melon crops (for fruit), sown area ('000 ha)
18	Tea, planting area ('000 ha)

SUBJECT Agriculture and Production  
DATA FILE SOAR\_APC.DAF  
DATABASE TITLE **AGRICULTURE - Per capita major crops sown areas**  
VARIABLES

1	Per capita food crops, sown area (mu)
2	Per capita summer crops, sown area (mu)
3	Per capita cereal crops, sown area (mu)
4	Per capita rice, sown area (mu)
5	Per capita wheat, sown area (mu)
6	Per capita corn, sown area (mu)
7	Per capita millet, sown area (mu)
8	Per capita sorghum, sown area (mu)
9	Per capita beans, sown area (mu)
10	Per capita soybean, sown area (mu)
11	Per capita tubers, sown area (mu)
12	Per capita potato, sown area (mu)
13	Per capita oil-bearing crops, sown area (mu)
14	Per capita peanuts, sown area (mu)
15	Per capita rapeseed, sown area (mu)
16	Per capita vegetable crops, sown area (mu)
17	Per capita melon crops (for fruit), sown area (mu)
18	Per capita tea, planting area (mu)

SUBJECT Agriculture and Production  
 DATA FILE SOAR\_YIE.DAF  
 DATABASE TITLE **AGRICULTURE - Major crops yields**  
 VARIABLES

1	Food crops, yield (tons/ha)
2	Summer crops, yield (tons/ha)
3	Cereal crops, yield (tons/ha)
4	Rice, yield (tons/ha)
5	Wheat, yield (tons/ha)
6	Corn, yield (tons/ha)
7	Millet, yield (tons/ha)
8	Sorghum, yield (tons/ha)
9	Beans, yield (tons/ha)
10	Soybean, yield (tons/ha)
11	Tubers, yield (tons/ha)
12	Potato, yield (tons/ha)
13	Oil-bearing crops, yield (tons/ha)
14	Peanuts, yield (tons/ha)
15	Rapeseed, yield (tons/ha)
16	Vegetable crops, yield (tons/ha)
17	Melon crops (for fruit), yield (tons/ha)
18	Tea, yield (tons/ha)

SUBJECT Agriculture and Production  
 DATA FILE AVYICA05.DAF  
 DATABASE TITLE **AGRICULTURE - Per capita production of major farm crops**  
 VARIABLES

1	Grain - Average per capita yield (kg)
2	Cotton - Average per capita yield (kg)
3	Oil-bearing crops - Average per capita yield (kg)
4	Sugar crops - Average per capita yield (kg)
5	Meat - Average per capita yield (kg)
6	Eggs - Average per capita yield (kg)
7	Milk - Average per capita yield (kg)
8	Aquatic products - Average per capita yield (kg)

SUBJECT Agriculture and Production  
 DATA FILE LIVEST05.DAF  
 DATABASE TITLE **AGRICULTURE - Num. of domestic animals - livestock output**  
 VARIABLES

1	Total output of meat (ton)
2	Output of pork meat (ton)
3	Output of beef meat (ton)
4	Output of mutton meat (ton)
5	Output of poultry meat (ton)
6	Output of rabbit meat (ton)
7	Cashmere output (ton)
8	Honey output (ton)
9	Egg output (ton)
10	Milk output (ton)
11	Cow milk output (ton)
12	Number of large domestic animals ('000)
13	Number of draught animals ('000)
14	Total number of cattle ('000)
15	Number of fertile cows ('000)
16	Number of oxen ('000)
17	Number of milk cows of good and improved breed ('000)
18	Number of buffaloes ('000)
19	Number of horses ('000)
20	Number of pigs ('000)
21	Number of goats ('000)
22	Number of sheep ('000)
23	Number of poultry ('000)
24	Number of rabbits ('000)
25	Output of seawater aquatic products (ton)
26	Output of freshwater aquatic products (ton)

SUBJECT Agriculture and Production  
 DATA FILE LIVESTPC.DAF  
 DATABASE TITLE **AGRICULTURE - Per capita domestic animals - livestock output**  
 VARIABLES

1	Per capita total output of meat (kgs)
2	Per capita output of pork meat (kgs)
3	Per capita output of beef meat (kgs)
4	Per capita output of mutton meat (kgs)
5	Per capita output of poultry meat (kgs)
6	Per capita output of rabbit meat (kgs)
7	Per capita cashmere output (kgs)
8	Per capita honey output (kgs)
9	Per capita egg output (kgs)
10	Per capita milk output (kgs)
11	Per capita cow milk output (kgs)
12	Number of large domestic animals (x '000 farmers)
13	Number of draught animals (x '000 farmers)
14	Total number of cattle (x '000 farmers)
15	Number of fertile cows (x '000 farmers)
16	Number of oxen (x '000 farmers)
17	Number of impr. breed cows milk (x '000 farmers)
18	Number of buffaloes (x '000 farmers)
19	Number of horses (x '000 farmers)
20	Number of pigs (x '000 farmers)
21	Number of goats (x '000 farmers)
22	Number of sheep (x '000 farmers)
23	Number of poultry (x '000 farmers)
24	Number of rabbits (x '000 farmers)
25	Per capita output of seawater aquatic products (kgs)
26	Per capita output of freshwater aquatic products (kgs)

SUBJECT Agriculture and Production  
 DATA FILE TOOUVA05.DAF  
 DATABASE TITLE **AGRICULTURE - Output value of agric., husbandry, fishery**  
 VARIABLES

1	Agriculture output (current prices) (million yuan)
2	Forestry output (current prices) (million yuan)
3	Animal husbandry output (current prices) (million yuan)
4	Fisheries output (current prices) (million yuan)
5	Total primary industry output (current prices) (million yuan)
6	Agriculture output (constant prices of 1990) (million yuan)
7	Forestry output (constant prices of 1990) (million yuan)
8	Animal husb. output (constant prices of 1990) (million yuan)
9	Fisheries output (constant prices of 1990) (million yuan)
10	Total primary industry output (constant prices) (million yuan)
11	Agric. output/Agric. lab. force (current prices) (yuan)
12	Agric. output/Rural pop. (current prices) (yuan)
13	Agric. out/Agric. lab force (const. prices 1990) (yuan)
14	Agric. output/Rural pop. (const. prices of 1990) (yuan)
15	Per capita agric. industry output (current prices) (yuan)
16	Per capita agric industry output (const prices 90) (yuan)

SUBJECT Agriculture and Production  
 DATA FILE PCCOMF05.DAF  
 DATABASE TITLE **AGRICULTURE - Per capita cons. of major foods (farmers)**  
 VARIABLES

1	Grain (unprocessed) per capita consumption (kgs)
2	Fine grain per capita consumption (kgs)
3	Vegetables per capita consumption (kgs)
4	Oil and fat per capita consumption (kgs)
5	Pork, beef and mutton per capita consumption (kgs)
6	Poultry per capita consumption (kgs)
7	Eggs and egg products per capita consumption (kgs)
8	Fish and shrimps per capita consumption (kgs)
9	Sugar per capita consumption (kgs)
10	Cigarettes (pack) per capita consumption
11	Liquors per capita consumption (kgs)
12	Tea per capita consumption (kgs)

SUBJECT Land use and Environment  
 DATA FILE CULLAN05.DAF  
 DATABASE TITLE **LAND USE - Cultivated land areas**  
 VARIABLES

1	Cultivated land areas beginning of year ('000 mu)
2	Increased areas within the year ('000 mu)
3	Reduced areas in the year, total ('000 mu)
4	Areas occupied by new housing construction ('000 mu)
5	Areas occupied by new hous./Cultiv. Areas beg. of year
6	Cultivated areas by year-end, total ('000 mu)
7	Cultivated areas by year-end, paddy fields ('000 mu)
8	Cultivated areas by year-end, dryland ('000 mu)

SUBJECT Land use and Environment  
 DATA FILE CULLANPC.DAF  
 DATABASE TITLE **LAND USE - Per capita cultivated land areas**  
 VARIABLES

1	Per capita cultiv. land areas beginning of year (mu)
2	Per capita increased areas within the year (mu)
3	Per capita reduced areas in the year, total (mu)
4	Per capita areas occ. by new housing construction (mu)
5	Per capita cultivated areas by year-end, total (mu)
6	Per capita cultiv. areas by year-end, paddy fields (mu)
7	Per capita cultivated areas by year-end, dryland (mu)

SUBJECT Land use and Environment  
 DATA FILE RHPCCL05.DAF  
 DATABASE TITLE **LAND USE - Per capita area of cultivated land (rural hhs)**  
 VARIABLES

1	Per capita area of cult. land (mu)
2	Per capita area of cult. land under contract (mu)
3	Per capita area of cult. land, family plots (mu)
4	Per capita area of hilly fields (mu)
5	Per capita area of hilly fields under contract (mu)
6	Per capita area of hilly fields, family plots (mu)
7	Per capita afforested area of hilly fields (mu)

SUBJECT Land use and Environment  
 DATA FILE IRRIMA05.DAF  
 DATABASE TITLE **LAND USE - Irrigated farmland and agriculture machinery**  
 VARIABLES

1	Total irrigated area ('000 hectares)
2	Effectively irrigated area ('000 hectares)
3	Forested land ('000 hectares)
4	Orchards ('000 hectares)
5	Tillage machinery, small tractors ('000 units)
6	Tillage machinery, small tractors ('000 kW)

SUBJECT Land use and Environment  
 DATA FILE IRRIMAPC.DAF  
 DATABASE TITLE **LAND USE - Per capita irrigated farmland and agr. machinery**  
 VARIABLES

1	Total irrigated area (ha x '000 people)
2	Effectively irrigated area (ha x '000 people)
3	Forested land (ha x '000 people)
4	Orchards (ha x '000 people)
5	Tillage machinery, small tractors (units x '000 people)
6	Tillage machinery, small tractors (kW x '000 people)

SUBJECT Land use and Environment  
 DATA FILE ARAFND05.DAF  
 DATABASE TITLE **LAND USE - Areas covered and affected by natural disasters**  
 VARIABLES

1	Areas covered by natural disasters ('000 ha)
2	Areas affected by natural disasters ('000 ha)
3	Areas covered by flood ('000 ha)

4 Flood areas affected ('000 ha)  
 5 Areas covered by drought ('000 ha)  
 6 Drought areas affected ('000 ha)

SUBJECT Land use and Environment  
 DATA FILE ARAFNDPC.DAF  
 DATABASE TITLE **LAND USE - Per capita areas affected by natural disasters**

VARIABLES  
 1 Areas covered by nat. dis. (ha x '000 people)  
 2 Areas affected by nat. dis. (ha x '000 people)  
 3 Areas covered by flood (ha x '000 people)  
 4 Flood areas affected (ha x '000 people)  
 5 Areas covered by drought (ha x '000 people)  
 6 Drought areas affected (ha x '000 people)

SUBJECT Prices  
 DATA FILE RRCPUR05.DAF  
 DATABASE TITLE **PRICES - Consumer and retail price index (rural - urban)**

VARIABLES  
 1 Resident CPI, Province  
 2 Resident CPI, Rural  
 3 Resident CPI, Urban  
 4 Retail CPI, Province  
 5 Retail CPI, Rural  
 6 Retail CPI, Urban  
 7 Resident CPI Food  
 8 Resident CPI Grain  
 9 Resident CPI Oil or Fat  
 10 Resident CPI Meat and Poultry  
 11 Resident CPI Eggs  
 12 Resident CPI Vegetables  
 13 Resident CPI Aquatic Products  
 14 Resident CPI Liquor and Beverages  
 15 Resident CPI Clothing  
 16 Retail CPI Food  
 17 Retail CPI Grain  
 18 Retail CPI Oil or Fat  
 19 Retail CPI Meat Poultry and Eggs  
 20 Retail CPI Aquatic Products  
 21 Retail CPI Vegetables  
 22 Retail CPI Drinking, Tobacco and Liquor  
 23 Retail CPI Clothing, Shoes and Hats  
 24 Retail CPI Textiles  
 25 Retail CPI Fuel

SUBJECT Prices  
 DATA FILE PRICEDEF.DAF  
 DATABASE TITLE **PRICES - Agricultural / non-agricultural price deflators**

VARIABLES  
 1 All resident price deflator (1990=100, comp. prices)  
 2 Agric. res. price deflator. (1990=100, comp. prices)  
 3 Non-agric. res. price deflator (1990=100, comp. prices)

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## CHINA PROVINCE DATABASE FOR VULNERABILITY ANALYSIS DMVCHINA

### ALPHABETICAL INDEX OF VARIABLES

Variable	Subject	Data file
<b>A</b>		
Afforested hilly fields (per capita area, mu)	Land use and Environment	RHPCCLO5.DAF
Agric. industry per capita output (const prices 90) (yuan)	Agriculture and Production	TOOUVA05.DAF
Agric. industry per capita output (current prices) (yuan)	Agriculture and Production	TOOUVA05.DAF
Agric. out/Agric. lab force (const. prices 1990) (yuan)	Agriculture and Production	TOOUVA05.DAF
Agric. output/Agric. lab. force (current prices) (yuan)	Agriculture and Production	TOOUVA05.DAF
Agric. output/Rural pop. (const. prices of 1990) (yuan)	Agriculture and Production	TOOUVA05.DAF
Agric. output/Rural pop. (current prices) (yuan)	Agriculture and Production	TOOUVA05.DAF
Agriculture output (constant prices of 1990) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Agriculture output (current prices) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Agriculture production and crops performances risks	Risks/Vulnerability	RISK.DAF
Anemia % (children 0-6, Rural)	Nutrition	ANEMIA92.DAF
Anemia % (children 0-6, U+R)	Nutrition	ANEMIA92.DAF
Anemia % (children 0-6, Urban)	Nutrition	ANEMIA92.DAF
Anemia % (children 6-14, Rural)	Nutrition	ANEMIA92.DAF
Anemia % (children 6-14, U+R)	Nutrition	ANEMIA92.DAF
Anemia % (children 6-14, Urban)	Nutrition	ANEMIA92.DAF
Anemia % (female adult) - rural	Nutrition	NUT_ANEM.DAF
Anemia % (female adult, Rural)	Nutrition	ANEMIA92.DAF
Anemia % (female adult, U+R)	Nutrition	ANEMIA92.DAF
Anemia % (female adult, Urban)	Nutrition	ANEMIA92.DAF
Anemia % (male adult) - rural	Nutrition	NUT_ANEM.DAF
Anemia % (male adult, Rural)	Nutrition	ANEMIA92.DAF
Anemia % (male adult, U+R)	Nutrition	ANEMIA92.DAF
Anemia % (male adult, Urban)	Nutrition	ANEMIA92.DAF
Anemia patterns	Risks/Vulnerability	RISK.DAF
Animal Fat (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Animal Fat (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Animal Fat (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Animal Fat (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Animal husb. output (constant prices of 1990) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Animal husbandry output (current prices) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Aquatic products - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Areas occ. by new housing construction (per capita mu)	Land use and Environment	CULLANPC.DAF
Areas occupied by new hous./Cultiv. Areas beg. of year	Land use and Environment	CULLAN05.DAF
Areas occupied by new housing construction ('000 mu)	Land use and Environment	CULLAN05.DAF
<b>B</b>		
Beans, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Beans, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Beans, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Beans, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Beans, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Beds in health care institutions ('000)	Health	HEBEPE05.DAF
Beds in health care institutions (x '0000 people)	Health	HEBEPEPC.DAF
Beds in hospitals ('000)	Health	HEBEPE05.DAF
Beds in hospitals (x '0000 people)	Health	HEBEPEPC.DAF
Beef meat output (ton)	Agriculture and Production	LIVEST05.DAF
Beef meat per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Bicycles (possession per 100 farmers)	Income	POPDCG05.DAF
Birth rate (%)	Population	ADDITIO5.DAF
BMI - Adults - (urban and rural) mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - (urban and rural) SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - Rural mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - Rural SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - Urban mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - Urban SD (kg/m2)	Nutrition	BMIDIS92.DAF

BMI - Adults - (Rural) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Rural)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (urban and rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - Rural mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - Rural SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - Urban mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - Urban SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Rural) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Rural)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (urban and rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (urban and rural)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Urban) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Urban) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Adults - (Urban)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (Rural) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (Rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (Rural)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (urban and rural) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (urban and rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (urban and rural) mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (urban and rural) SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (urban and rural)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (Urban) >25 (%)	Nutrition	BMIDIS92.DAF
BMIDIS92.DAF		
BMI - Female Adults - (Urban) 18.5-25.0(%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - (Urban)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - Rural mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - Rural SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - Urban mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Female Adults - Urban SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (urban and rural) mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (urban and rural) SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMIDIS92.DAF		
BMI - Male Adults - Rural mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - Rural SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - Urban mean (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - Urban SD (kg/m2)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (Rural) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (Rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (Rural)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (urban and rural) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (urban and rural) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (urban and rural)<18.5 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (Urban) >25 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (Urban) 18.5-25.0 (%)	Nutrition	BMIDIS92.DAF
BMI - Male Adults - (Urban)<18.5 (%)	Nutrition	BMIDIS92.DAF
Buffaloes (number of, '000)	Agriculture and Production	LIVEST05.DAF
Buffaloes (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Business (household, % of total net income)	Income	AVNIPC05.DAF
Business (household, yuan)	Income	AVNIPC05.DAF
<b>C</b>		
Calcium (High income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (High income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (High) mean (mg) (reference man)	Nutrition	NUT_CALC.DAF
Calcium (Low income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (Low income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (Low) mean (mg) (reference man)	Nutrition	NUT_CALC.DAF
Calcium (Mid income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (Mid income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (Mid) mean (mg) (reference man)	Nutrition	NUT_CALC.DAF
Calcium (Total income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (Total income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Calcium (Total) mean (mg) (reference man)	Nutrition	NUT_CALC.DAF
Calcium deficiency	Risks/Vulnerability	RISK.DAF
Cashmere output (ton)	Agriculture and Production	LIVEST05.DAF
Cashmere per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Cattle (total number of, '000)	Agriculture and Production	LIVEST05.DAF
Cattle (total number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Cereal crops, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Cereal crops, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Cereal crops, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Cereal crops, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Cereal crops, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF

Cereals prod (other) (High Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Cereals prod (other) (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Cereals prod (other) (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Cereals prod (other) (Total Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Children (ratio who can enter school, U + R %)	Population	ADDIT05.DAF
Cigarettes (pack) per capita consumption	Agriculture and Production	PCCOMF05.DAF
Clocks and watches (possession per 100 farmers)	Income	POPDCG05.DAF
Clothes (per capita expenditure, % tot. exp.)	Income	LIEXPC05.DAF
Clothes (per capita expenditure, yuan)	Income	LIEXPC05.DAF
Commodities and services (other, per capita exp., %)	Income	LIEXPC05.DAF
Commodities and services (other, per capita exp., yuan)	Income	LIEXPC05.DAF
Communications (per capita expenditure, %)	Income	LIEXPC05.DAF
Communications (per capita expenditure, yuan)	Income	LIEXPC05.DAF
Consumption (agric. res. per capita, 1990=100, comp. prices)	Income	PECASOIN.DAF
Consumption (agric. res. per capita, 1990=100, current prices)	Income	PECASOIN.DAF
Consumption (agric. residents per capita, prec. year=100)	Income	PECASOIN.DAF
Consumption (agric/non-agric per capita, 1990=100, comp.prices)	Income	PECASOIN.DAF
Consumption (agricultural residents per capita, yuan)	Income	PECASO05.DAF
Consumption (all res. per capita, 1990=100, comp. prices)	Income	PECASOIN.DAF
Consumption (all res. per capita, 1990=100, current prices)	Income	PECASOIN.DAF
Consumption (all residents per capita, prec. year=100)	Income	PECASO05.DAF
Consumption (all residents per capita, yuan)	Income	PECASO05.DAF
Consumption (non-agric. res. per capita, 1990=100, comp. prices)	Income	PECASOIN.DAF
Consumption (non-agric. res. per capita, 1990=100, curr. prices)	Income	PECASOIN.DAF
Consumption (non-agric. residents per capita, prec. year=100)	Income	PECASO05.DAF
Consumption (non-agric. residents per capita, yuan)	Income	PECASO05.DAF
Consumption (non-agric./agric. residents per capita)	Income	PECASO05.DAF
Corn, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Corn, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Corn, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Corn, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Corn, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Cotton - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Cow milk output (ton)	Agriculture and Production	LIVEST05.DAF
Cow milk per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
CPI Aquatic Products (Resident)	Prices	RRCPUR05.DAF
CPI Aquatic Products (Retail)	Prices	RRCPUR05.DAF
CPI Clothing (Resident)	Prices	RRCPUR05.DAF
CPI Clothing, Shoes and Hats (Retail)	Prices	RRCPUR05.DAF
CPI Drinking, Tobacco and Liquor (Retail)	Prices	RRCPUR05.DAF
CPI Eggs (Resident)	Prices	RRCPUR05.DAF
CPI Food (Resident)	Prices	RRCPUR05.DAF
CPI Food (Retail)	Prices	RRCPUR05.DAF
CPI Fuel (Retail)	Prices	RRCPUR05.DAF
CPI Grain (Resident)	Prices	RRCPUR05.DAF
CPI Grain (Retail)	Prices	RRCPUR05.DAF
CPI Liquor and Beverages (Resident)	Prices	RRCPUR05.DAF
CPI Meat and Poultry (Resident)	Prices	RRCPUR05.DAF
CPI Meat Poultry and Eggs (Retail)	Prices	RRCPUR05.DAF
CPI Oil or Fat (Resident)	Prices	RRCPUR05.DAF
CPI Oil or Fat (Retail)	Prices	RRCPUR05.DAF
CPI Textiles (Retail)	Prices	RRCPUR05.DAF
CPI Vegetables (Resident)	Prices	RRCPUR05.DAF
CPI Vegetables (Retail)	Prices	RRCPUR05.DAF
CPI, Province (Resident)	Prices	RRCPUR05.DAF
CPI, Province (Retail)	Prices	RRCPUR05.DAF
CPI, Rural (Resident)	Prices	RRCPUR05.DAF
CPI, Rural (Retail)	Prices	RRCPUR05.DAF
CPI, Urban (Resident)	Prices	RRCPUR05.DAF
CPI, Urban (Retail)	Prices	RRCPUR05.DAF
Cultiv. areas by year-end, paddy fields (per capita mu)	Land use and Environment	CULLANPC.DAF
Cultiv. areas increased within the year ('000 mu)	Land use and Environment	CULLAN05.DAF
Cultiv. areas increased within the year (per capita mu)	Land use and Environment	CULLANPC.DAF
Cultiv. areas reduced in the year, total ('000 mu)	Land use and Environment	CULLAN05.DAF
Cultiv. areas reduced in the year, total (per capita mu)	Land use and Environment	CULLANPC.DAF
Cultiv. land areas beginning of year (per capita mu)	Land use and Environment	CULLANPC.DAF
Cultivated areas by year-end, dryland ('000 mu)	Land use and Environment	CULLAN05.DAF
Cultivated areas by year-end, dryland (per capita mu)	Land use and Environment	CULLANPC.DAF
Cultivated areas by year-end, paddy fields ('000 mu)	Land use and Environment	CULLAN05.DAF
Cultivated areas by year-end, total ('000 mu)	Land use and Environment	CULLAN05.DAF
Cultivated areas by year-end, total (per capita mu)	Land use and Environment	CULLANPC.DAF
Cultivated land (per capita area, mu)	Land use and Environment	RHPCC05.DAF
Cultivated land areas beginning of year ('000 mu)	Land use and Environment	CULLAN05.DAF
Cultivated land under contract (per capita area, mu)	Land use and Environment	RHPCC05.DAF
Cultivated land, family plots (per capita area, mu)	Land use and Environment	RHPCC05.DAF
Cultural, educational, ... (per capita expenditure, %)	Income	LIEXPC05.DAF

Cultural, educational, ... (per capita expenditure, yuan)	Income	LIEXPC05.DAF
<b>D</b>		
Dark Colour Veg/Prod (Total) (g/reference man/day)	Nutrition	NUT_ANEM.DAF
Death rate (%)	Population	ADDIT05.DAF
Dietary patterns	Risks/Vulnerability	RISK.DAF
Disaster prone areas	Risks/Vulnerability	RISK.DAF
Draught animals (number of, '000)	Agriculture and Production	LIVEST05.DAF
Draught animals (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Drought (areas affected, '000 ha)	Land use and Environment	ARAFND05.DAF
Drought (areas affected, ha x '000 people)	Land use and Environment	ARAFNDPC.DAF
Drought (areas covered, '000 ha)	Land use and Environment	ARAFND05.DAF
Drought (areas covered, ha x '000 people)	Land use and Environment	ARAFNDPC.DAF
<b>E</b>		
Egg output (ton)	Agriculture and Production	LIVEST05.DAF
Egg per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Eggs - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Eggs and egg products per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Eggs prod (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Eggs prod (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Eggs prod (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Eggs prod (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Eggs/Prod (High) (g/reference man/day)	Nutrition	NUT_ANEM.DAF
Eggs/Prod (High) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Eggs/Prod (Low) (g/reference man/day)	Nutrition	NUT_ANEM.DAF
Eggs/Prod (Low) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Eggs/Prod (Mid) (g/reference man/day)	Nutrition	NUT_ANEM.DAF
Eggs/Prod (Mid) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Eggs/Prod (Total) (g/reference man/day)	Nutrition	NUT_ANEM.DAF
Eggs/Prod (Total) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Electric fans (possession per 100 farmers)	Income	POPDCG05.DAF
Energy (High income) (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy (High income) SD (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy (Low income) (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy (Low income) SD (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy (Mid income) (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy (Mid income) SD (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy (Total income) (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy (Total income) SD (kcal) (ref. man)	Nutrition	NUININ92.DAF
Energy by cereals (High income) (% of dietary)	Nutrition	NUIN%D92.DAF
Energy by cereals (High income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Energy by cereals (Low income) (% of dietary)	Nutrition	NUIN%D92.DAF
Energy by cereals (Low income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Energy by cereals (Mid income) (% of dietary)	Nutrition	NUIN%D92.DAF
Energy by cereals (Mid income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Energy by cereals (Total income) (% of dietary)	Nutrition	NUIN%D92.DAF
Energy by cereals (Total income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Expenditure composition (rural)	Risks/Vulnerability	RISK.DAF
<b>F</b>		
Fat (High income) (g) (ref. man)	Nutrition	NUININ92.DAF
Fat (High income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Fat (Low income) (g) (ref. man)	Nutrition	NUININ92.DAF
Fat (Low income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Fat (Mid income) (g) (ref. man)	Nutrition	NUININ92.DAF
Fat (Mid income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Fat (Total income) (g) (ref. man)	Nutrition	NUININ92.DAF
Fat (Total income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Fat by Animal Food (High income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Animal Food (High income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Animal Food (Low income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Animal Food (Low income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Animal Food (Mid income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Animal Food (Mid income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Animal Food (Total income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Animal Food (Total income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (High income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (High income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (Low income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (Low income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (Mid income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (Mid income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (Total income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Fat by Plant Food (Total income) (% of dietary)	Nutrition	NUIN%D92.DAF
Fertile cows (number of, '000)	Agriculture and Production	LIVEST05.DAF

Fertile cows (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Fine grain per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Fish and Shellfish Prod (High Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Fish and Shellfish Prod (High) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Fish and Shellfish Prod (Low Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Fish and Shellfish Prod (Low) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Fish and Shellfish Prod (Mid Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Fish and Shellfish Prod (Mid) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Fish and Shellfish Prod (Total Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Fish and Shellfish Prod (Total) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Fish and shrimps per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Fisheries output (constant prices of 1990) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Fisheries output (current prices) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Fixed assets availability	Risks/Vulnerability	RISK.DAF
Flood (areas affected, '000 ha)	Land use and Environment	ARAFND05.DAF
Flood (areas affected, ha x '000 people)	Land use and Environment	ARAFNDPC.DAF
Flood (areas covered, '000 ha)	Land use and Environment	ARAFND05.DAF
Flood (areas covered, ha x '000 people)	Land use and Environment	ARAFNDPC.DAF
Food (per capita expenditure, % tot. exp.)	Income	LIEXPC05.DAF
Food (per capita expenditure, yuan)	Income	LIEXPC05.DAF
Food cash (per capita expenditure, % tot. exp)	Income	LIEXPC05.DAF
Food cash (per capita expenditure, yuan)	Income	LIEXPC05.DAF
Food crops, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Food crops, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Food crops, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Food crops, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Food crops, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Forested land ('000 hectares)	Land use and Environment	IRRIMA05.DAF
Forested land (ha x '000 people)	Land use and Environment	IRRIMAPC.DAF
Forestry output (constant prices of 1990) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Forestry output (current prices) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Freshwater aquatic products output (ton)	Agriculture and Production	LIVEST05.DAF
Freshwater aquatic products per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Fruits, output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Fruits, output (tons)	Agriculture and Production	SOAR_OAF.DAF
<b>G</b>		
Goats (number of, '000)	Agriculture and Production	LIVEST05.DAF
Goats (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Goods (durable consumer, possession in rural areas)	Risks/Vulnerability	RISK.DAF
Goods (per capita expenditure, yuan)	Income	LIEXPC05.DAF
Goods possession (farmers, composite indicator)	Income	POPDCG05.DAF
Grain - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Grain (unprocessed) per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Growth rate (natural, %)	Population	ADDITIO5.DAF
<b>H</b>		
Health care institutions	Health	HEBEPE05.DAF
Health care institutions (x '00000 people)	Health	HEBEPEPC.DAF
Health conditions	Risks/Vulnerability	RISK.DAF
Height Adults (urban and rural) mean (cm)	Nutrition	BMIDIS92.DAF
Height Adults (urban and rural) SD (cm)	Nutrition	BMIDIS92.DAF
Height Adults Rural mean (cm)	Nutrition	BMIDIS92.DAF
Height Adults Rural SD (cm)	Nutrition	BMIDIS92.DAF
Height Adults Urban mean (cm)	Nutrition	BMIDIS92.DAF
Height Adults Urban SD (cm)	Nutrition	BMIDIS92.DAF
Height Female Adults (urban and rural) mean (cm)	Nutrition	BMIDIS92.DAF
Height Female Adults (urban and rural) SD (cm)	Nutrition	BMIDIS92.DAF
Height Female Adults Rural mean (cm)	Nutrition	BMIDIS92.DAF
Height Female Adults Rural SD (cm)	Nutrition	BMIDIS92.DAF
Height Female Adults Urban mean (cm)	Nutrition	BMIDIS92.DAF
Height Female Adults Urban SD (cm)	Nutrition	BMIDIS92.DAF
Height Male Adults (urban and rural) mean (cm)	Nutrition	BMIDIS92.DAF
Height Male Adults (urban and rural) SD (cm)	Nutrition	BMIDIS92.DAF
Height Male Adults Rural mean (cm)	Nutrition	BMIDIS92.DAF
Height Male Adults Rural SD (cm)	Nutrition	BMIDIS92.DAF
Height Male Adults Urban mean (cm)	Nutrition	BMIDIS92.DAF
Height Male Adults Urban SD (cm)	Nutrition	BMIDIS92.DAF
HH' facilities and services (per capita exp., %)	Income	LIEXPC05.DAF
HH' facilities and services (per capita exp., yuan)	Income	LIEXPC05.DAF
Hilly fields (per capita area, mu)	Land use and Environment	RHPCCLO5.DAF
Hilly fields under contract (per capita area, mu)	Land use and Environment	RHPCCLO5.DAF
Hilly fields, family plots (per capita area, mu)	Land use and Environment	RHPCCLO5.DAF
Honey output (ton)	Agriculture and Production	LIVEST05.DAF
Honey per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Horses (number of, '000)	Agriculture and Production	LIVEST05.DAF

Horses (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Hospitals	Health	HEBEPE05.DAF
Hospitals (x '00000 people)	Health	HEBEPEPC.DAF
Households (rural, '000)	Population	APOLAF05.DAF
Households dimension (rural)	Population	APOLAF05.DAF
<b>I</b>		
Impr. breed cows milk (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Income (average per capita, yuan - rural)	Income	AAINPC92.DAF
Income (average per capita, yuan - urban and rural)	Income	AAINPC92.DAF
Income (average per capita, yuan - urban)	Income	AAINPC92.DAF
Income (average per capita, yuan) - rural	Nutrition	NUT_ANEM.DAF
Income (average per capita, yuan) - rural	Nutrition	NUT_CALC.DAF
Income (average per capita, yuan) - rural	Nutrition	NUT_RIBO.DAF
Income (average per capita, yuan) - rural	Nutrition	NUT_VITA.DAF
Income (basic, % of total net income)	Income	AVNIPC05.DAF
Income (basic, yuan)	Income	AVNIPC05.DAF
Income (net per capita, yuan)	Income	AVNIPC05.DAF
Income (property, % of total net income)	Income	AVNIPC05.DAF
Income (property, yuan)	Income	AVNIPC05.DAF
Income (rural net, dynamic by component)	Risks/Vulnerability	RISK.DAF
Income (sources of rural)	Risks/Vulnerability	RISK.DAF
Income (transferred, % of total net income)	Income	AVNIPC05.DAF
Income (transferred, yuan)	Income	AVNIPC05.DAF
Iodine insufficiency (8-10 years old students, %)	Population	ADDITI05.DAF
Iron (High income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (High income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (High) mean (mg) (reference man)	Nutrition	NUT_ANEM.DAF
Iron (Low income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (Low income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (Low) mean (mg) (reference man)	Nutrition	NUT_ANEM.DAF
Iron (Mid income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (Mid income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (Mid) mean (mg) (reference man)	Nutrition	NUT_ANEM.DAF
Iron (Total income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (Total income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Iron (Total) mean (mg) (reference man)	Nutrition	NUT_ANEM.DAF
Irrigated area (effectively, '000 hectares)	Land use and Environment	IRRIMA05.DAF
Irrigated area (effectively, ha x '000 people)	Land use and Environment	IRRIMAPC.DAF
Irrigated area (total, '000 hectares)	Land use and Environment	IRRIMA05.DAF
Irrigated area (total, ha x '000 people)	Land use and Environment	IRRIMAPC.DAF
<b>L</b>		
Labour (payment for, % of total net income)	Income	AVNIPC05.DAF
Labour (payment for, yuan)	Income	AVNIPC05.DAF
Labour force (Agricultural / Total)	Population	APOLAF05.DAF
Labour force (Tow. & Vill., Female / Total)	Population	APOLAF05.DAF
Labour force (Tow. & Vill., Female, '000)	Population	APOLAF05.DAF
Labour force (townships and villages, '000)	Population	APOLAF05.DAF
Labour force for agric., forestry, ... (Tow. & Vill., '000)	Population	APOLAF05.DAF
Large domestic animals (number of, '000)	Agriculture and Production	LIVEST05.DAF
Large domestic animals (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Liquors per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Literacy rate U+R, female (%)	Population	ADDITI05.DAF
Literacy rate U+R, male (%)	Population	ADDITI05.DAF
<b>M</b>		
Malnutrition (children)	Risks/Vulnerability	RISK.DAF
Meat - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Meat per capita total output (ton)	Agriculture and Production	LIVESTPC.DAF
Meat total output (ton)	Agriculture and Production	LIVEST05.DAF
Meats (other) (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Meats (other) (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Meats (other) (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Meats (other) (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Medical technical personnel ('000 persons)	Health	HEBEPE05.DAF
Medical technical personnel (x '0000 people)	Health	HEBEPEPC.DAF
Medical treatment and health care (per capita exp., %)	Income	LIEXPC05.DAF
Medical treatment and health care (per capita exp., yuan)	Income	LIEXPC05.DAF
Melon crops (for fruit), per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Melon crops (for fruit), per capita tot out (kgs)	Agriculture and Production	SOAR_OPC.DAF
Melon crops (for fruit), sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Melon crops (for fruit), total output (tons)	Agriculture and Production	SOAR_OAF.DAF
Melon crops (for fruit), yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Milk - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Milk cows of good and improved breed (number of, '000)	Agriculture and Production	LIVEST05.DAF

Milk output (ton)	Agriculture and Production	LIVEST05.DAF
Milk per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Milk prod (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Milk prod (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Milk prod (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Milk prod (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Milk/Prod (High) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Milk/Prod (Low) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Milk/Prod (Mid) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Milk/Prod (Total) (g/reference man/day)	Nutrition	NUT_CALC.DAF
Millet, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Millet, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Millet, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Millet, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Millet, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Mortality rate (infant, %)	Population	ADDIT05.DAF
Mortality rate (under 5 years, %)	Population	ADDIT05.DAF
Mutton meat output (ton)	Agriculture and Production	LIVEST05.DAF
Mutton meat per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
<b>N</b>		
Natural disasters (areas affected, '000 ha)	Land use and Environment	ARAFND05.DAF
Natural disasters (areas affected, ha x '000 people)	Land use and Environment	ARAFNDPC.DAF
Natural disasters (areas covered, '000 ha)	Land use and Environment	ARAFND05.DAF
Natural disasters (areas covered, ha x '000 people)	Land use and Environment	ARAFNDPC.DAF
<b>O</b>		
Oil and fat per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Oil-bearing crops - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Oil-bearing crops, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Oil-bearing crops, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Oil-bearing crops, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Oil-bearing crops, total output (tons)	Agriculture and Production	SOAR_OAF.DAF
Oil-bearing crops, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Orchards ('000 hectares)	Land use and Environment	IRRIMA05.DAF
Orchards (ha x '000 people)	Land use and Environment	IRRIMAPC.DAF
Organ Meat (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Organ Meat (High) (g/reference man/day)	Nutrition	NUT_RIBO.DAF
Organ Meat (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Organ Meat (Low) (g/reference man/day)	Nutrition	NUT_RIBO.DAF
Organ Meat (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Organ Meat (Mid) (g/reference man/day)	Nutrition	NUT_RIBO.DAF
Organ Meat (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Organ Meat (Total) (g/reference man/day)	Nutrition	NUT_RIBO.DAF
Oxen (number of, '000)	Agriculture and Production	LIVEST05.DAF
Oxen (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
<b>P</b>		
Peanuts, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Peanuts, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Peanuts, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Peanuts, total output (tons)	Agriculture and Production	SOAR_OAF.DAF
Peanuts, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Personnel in health care institutions ( '000 persons)	Health	HEBEPE05.DAF
Personnel in health care institutions ( x '0000 people)	Health	HEBEPEPC.DAF
Pigs (number of, '000)	Agriculture and Production	LIVEST05.DAF
Pigs (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Population (Agricultural / Total)	Population	APOLAF05.DAF
Population (agricultural, '000)	Population	APOLAF05.DAF
Population (Rural / Total)	Population	APOLAF05.DAF
Population (rural, '000)	Population	APOLAF05.DAF
Population (total at year end, '000 persons)	Population	ADDIT05.DAF
Population (total, '000)	Population	APOLAF05.DAF
Pork (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Pork (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Pork (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Pork (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Pork meat output (ton)	Agriculture and Production	LIVEST05.DAF
Pork meat per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Pork, beef and mutton per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Potato, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Potato, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Potato, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Potato, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Potato, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Poultry (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF

Poultry (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Poultry (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Poultry (number of, '000)	Agriculture and Production	LIVEST05.DAF
Poultry (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Poultry (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Poultry meat output (ton)	Agriculture and Production	LIVEST05.DAF
Poultry meat per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Poultry per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Price deflator (all resident, 1990=100, comp. prices)	Prices	PRICEDEF.DAF
Price deflator (non agric. res., 1990=100, comp. prices)	Prices	PRICEDEF.DAF
Price deflator. (agric. res., 1990=100, comp. prices)	Prices	PRICEDEF.DAF
Prices trends and rural/urban trend ratio	Risks/Vulnerability	RISK.DAF
Primary industry total output (constant prices) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Primary industry total output (current prices) (million yuan)	Agriculture and Production	TOOUVA05.DAF
Protein (High income) (g) (ref. man)	Nutrition	NUININ92.DAF
Protein (High income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Protein (Low income) (g) (ref. man)	Nutrition	NUININ92.DAF
Protein (Low income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Protein (Mid income) (g) (ref. man)	Nutrition	NUININ92.DAF
Protein (Mid income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Protein (Total income) (g) (ref. man)	Nutrition	NUININ92.DAF
Protein (Total income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Protein by Animal Food (High income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (High income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (High) mean	Nutrition	NUT_ANEM.DAF
Protein by Animal Food (Low income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (Low income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (Low) mean	Nutrition	NUT_ANEM.DAF
Protein by Animal Food (Mid income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (Mid income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (Mid) mean	Nutrition	NUT_ANEM.DAF
Protein by Animal Food (Total income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (Total income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Animal Food (Total) mean	Nutrition	NUT_ANEM.DAF
Protein by Beans/Peas (High income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (High income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (High) mean	Nutrition	NUT_CALC.DAF
Protein by Beans/Peas (Low income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (Low income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (Low) mean	Nutrition	NUT_CALC.DAF
Protein by Beans/Peas (Mid income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (Mid income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (Mid) mean	Nutrition	NUT_CALC.DAF
Protein by Beans/Peas (Total income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (Total income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by Beans/Peas (Total) mean	Nutrition	NUT_CALC.DAF
Protein by cereals (High income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by cereals (High income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by cereals (Low income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by cereals (Low income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by cereals (Mid income) (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by cereals (Mid income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by cereals (Total income) SD (% of dietary)	Nutrition	NUIN%D92.DAF
Protein by cereals (Total income) (% of dietary)	Nutrition	NUIN%D92.DAF
<b>R</b>		
Rabbit meat output (ton)	Agriculture and Production	LIVEST05.DAF
Rabbit meat per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Rabbits (number of, '000)	Agriculture and Production	LIVEST05.DAF
Rabbits (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Radio sets (possession per 100 farmers)	Income	POPDCG05.DAF
Rapeseed, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Rapeseed, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Rapeseed, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Rapeseed, total output (tons)	Agriculture and Production	SOAR_OAF.DAF
Rapeseed, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Recorders (possession per 100 farmers)	Income	POPDCG05.DAF
Residence (per capita expenditure, %)	Income	LIEXPC05.DAF
Residence (per capita expenditure, yuan)	Income	LIEXPC05.DAF
Ret. Eq. (High) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF
Ret. Eq. (Low) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF
Ret. Eq. (Mid) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF
Ret. Eq. (Total) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF
Retinol (High income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (High income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (High) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF

Retinol (Low income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (Low income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (Low) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF
Retinol (Mid income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (Mid income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (Mid) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF
Retinol (Total income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (Total income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol (Total) mean (µg) (reference man)	Nutrition	NUT_VITA.DAF
Retinol Eq. (High income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol Eq. (High income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol Eq. (Low income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol Eq. (Low income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol Eq. (Mid income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol Eq. (Mid income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol Eq. (Total income) (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol Eq. (Total income) SD (µg) (ref. man)	Nutrition	NUININ92.DAF
Retinol equivalent and riboflavin deficit	Risks/Vulnerability	RISK.DAF
Riboflavin (High income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (High income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (High) mean (mg) (reference man)	Nutrition	NUT_RIBO.DAF
Riboflavin (Low income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (Low income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (Low) mean (mg) (reference man)	Nutrition	NUT_RIBO.DAF
Riboflavin (Mid income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (Mid income) SD (mg) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (Mid) mean (mg) (reference man)	Nutrition	NUT_RIBO.DAF
Riboflavin (Total income) (mg) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (Total income) SD (g) (ref. man)	Nutrition	NUININ92.DAF
Riboflavin (Total) mean (mg) (reference man)	Nutrition	NUT_RIBO.DAF
Rice prod (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Rice prod (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Rice prod (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Rice prod (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Rice, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Rice, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Rice, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Rice, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Rice, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
<b>S</b>		
Seawater aquatic products output (ton)	Agriculture and Production	LIVEST05.DAF
Seawater aquatic products per capita output (kgs)	Agriculture and Production	LIVESTPC.DAF
Sewing machines (possession per 100 farmers)	Income	POPDCG05.DAF
Sheep (number of, '000)	Agriculture and Production	LIVEST05.DAF
Sheep (number x '000 farmers)	Agriculture and Production	LIVESTPC.DAF
Sorghum, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Sorghum, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Sorghum, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Sorghum, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Sorghum, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Soybean, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Soybean, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Soybean, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Soybean, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Soybean, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Starch tubers prod (High Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Starch tubers prod (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Starch tubers prod (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Starch tubers prod (Total Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Sugar crops - Average per capita yield (kg)	Agriculture and Production	AVYICA05.DAF
Sugar per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Summer crops, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Summer crops, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Summer crops, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Summer crops, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Summer crops, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
<b>T</b>		
Tap water (% of rural pop. Using, rural pop. = 100)	Population	ADDIT05.DAF
Tea per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Tea, per capita planting area (mu)	Agriculture and Production	SOAR_APC.DAF
Tea, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Tea, planting area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Tea, total output (tons)	Agriculture and Production	SOAR_OAF.DAF
Tea, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF

Television sets (possession per 100 farmers)	Income	POPDCG05.DAF
Tillage machinery, small tractors ('000 kW)	Land use and Environment	IRRIMA05.DAF
Tillage machinery, small tractors ('000 units)	Land use and Environment	IRRIMA05.DAF
Tillage machinery, small tractors (kW x '000 people)	Land use and Environment	IRRIMAPC.DAF
Tillage machinery, small tractors (units x '000 people)	Land use and Environment	IRRIMAPC.DAF
Total living cash (per capita expenditure, yuan)	Income	LIEXPC05.DAF
Towns (number)	Population	APOLAF05.DAF
Townships (number)	Population	APOLAF05.DAF
Tubers, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Tubers, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Tubers, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Tubers, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Tubers, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
<b>U</b>		
Undernourishment and obesity (adult)	Risks/Vulnerability	RISK.DAF
<b>V</b>		
Vegetable crops, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Vegetable crops, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Vegetable crops, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Vegetable crops, total output (tons)	Agriculture and Production	SOAR_OAF.DAF
Vegetable crops, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF
Vegetable Oil (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Vegetable Oil (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Vegetable Oil (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Vegetable Oil (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Vegetables per capita consumption (kgs)	Agriculture and Production	PCCOMF05.DAF
Vegetables prod (Dark Colour) (High Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Vegetables prod (Dark Colour) (Low Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Vegetables prod (Dark Colour) (Mid Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Vegetables prod (Dark Colour) (Total Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Vegetables prod (Light Colour) (High Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Vegetables prod (Light Colour) (Low Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Vegetables prod (Light Colour) (Mid Income) (g/ref. man/day)	Nutrition	FOCOPA92.DAF
Vegetables prod (Light Colour) (Total Income) (g/ref. man/day)	utrition	FOCOPA92.DAF
Villages (number)	Population	APOLAF05.DAF
Vulnerability analysis	Risks/Vulnerability	RISK.DAF
<b>W</b>		
Weight Adults (urban and rural) mean (kg)	Nutrition	BMIDIS92.DAF
Weight Adults (urban and rural) SD (kg)	Nutrition	BMIDIS92.DAF
Weight Adults Rural mean (kg)	Nutrition	BMIDIS92.DAF
Weight Adults Rural SD (kg)	Nutrition	BMIDIS92.DAF
Weight Adults Urban mean (kg)	Nutrition	BMIDIS92.DAF
Weight Adults Urban SD (kg)	Nutrition	BMIDIS92.DAF
Weight Female Adults (urban and rural) mean (kg)	Nutrition	BMIDIS92.DAF
Weight Female Adults (urban and rural) SD (kg)	Nutrition	BMIDIS92.DAF
Weight Female Adults Rural mean (kg)	Nutrition	BMIDIS92.DAF
Weight Female Adults Rural SD (kg)	Nutrition	BMIDIS92.DAF
Weight Female Adults Urban mean (kg)	Nutrition	BMIDIS92.DAF
Weight Female Adults Urban SD (kg)	Nutrition	BMIDIS92.DAF
Weight Male Adults (urban and rural) mean (kg)	Nutrition	BMIDIS92.DAF
Weight Male Adults (urban and rural) SD (kg)	Nutrition	BMIDIS92.DAF
Weight Male Adults Rural mean (kg)	Nutrition	BMIDIS92.DAF
Weight Male Adults Rural SD (kg)	Nutrition	BMIDIS92.DAF
Weight Male Adults Urban mean (kg)	Nutrition	BMIDIS92.DAF
Weight Male Adults Urban SD (kg)	Nutrition	BMIDIS92.DAF
Wheat prod (High Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Wheat prod (Low Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Wheat prod (Mid Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Wheat prod (Total Income) (g/reference man/day)	Nutrition	FOCOPA92.DAF
Wheat, per capita sown area (mu)	Agriculture and Production	SOAR_APC.DAF
Wheat, per capita total output (kgs)	Agriculture and Production	SOAR_OPC.DAF
Wheat, sown area ('000 ha)	Agriculture and Production	SOAR_AAF.DAF
Wheat, total output ('0000 tons)	Agriculture and Production	SOAR_OAF.DAF
Wheat, yield (tons/ha)	Agriculture and Production	SOAR_YIE.DAF