



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

# **SOCIAL ECONOMICS, POLICY AND DEVELOPMENT**

**Working Paper No. 30**

**Rural Poverty and China's Entry to WTO:  
Present Knowledge, Unresolved Issues and China's  
Policy Options**

**by**

**Clem Tisdell**

**November 2002**



**THE UNIVERSITY OF QUEENSLAND**

**Working Paper No. 30**

**Rural Poverty and China's Entry to WTO:  
Present Knowledge, Unresolved Issues and China's  
Policy Options\***

by

**Clem Tisdell<sup>†</sup>**

**November 2002**

© All rights reserved

---

\* A background paper (TN60) prepared for an LGOP-WTO Issues workshop to be held in Beijing commencing Monday, 28 October, 2002. This paper covers the following.

- Findings of internationally sponsored studies on impacts within China of its entry into the WTO on poverty in China; or
- The scope in rural poverty reduction provided by "exempt" measures under WTO covenants including "Green Box" measures, developmental measure, "Blue Box" measures, and the *de minimis* principle.

This paper has been prepared as a part of the project AusAID TN60, Capacity Building for Participatory Poverty Alleviation in China, managed by World Vision Australia.

<sup>†</sup> School of Economics, The University of Queensland, Brisbane 4072 Australia.  
Email: [c.tisdell@economics.uq.edu.au](mailto:c.tisdell@economics.uq.edu.au)

WORKING PAPERS IN THE SERIES, *Social Economics, Policy and Development* are published by the Department of Economics, University of Queensland, 4072, Australia. They are designed to provide an initial outlet for papers resulting from research funded by the Australian Research Council in relation to the project 'Asset Poor Women in Development', Chief Investigator: C.A. Tisdell and Partner Investigators: Associate Professor K.C. Roy and Associate Professor S. Harrison. However this series will also provide an outlet for papers on related topics. Views expressed in these working papers are those of their authors and not necessarily of any of the organisations associated with the Project. They should not be reproduced in whole or in part without the written permission of the Project Leader. It is planned to publish contributions to this series over the next few years.

For more information write to Professor Clem Tisdell, Department of Economics, University of Queensland, Brisbane 4072, Australia. (e-mail: [c.tisdell@economics.uq.edu.au](mailto:c.tisdell@economics.uq.edu.au))

# **RURAL POVERTY AND CHINA'S ENTRY TO WTO: PRESENT KNOWLEDGE, UNRESOLVED ISSUES AND CHINA'S POLICY OPTIONS**

## **ABSTRACT**

Begins by considering trends in the incidence of rural poverty in China, comparing China and India. Although the incidence of rural poverty in China declined generally, such poverty is still a matter for concern, especially now that China has joined the WTO. There is concern about the possible impact of China's WTO entry on its rural poverty and its ability to adopt policies to address it. Recent international studies of such poverty in China by bodies such as the World Bank, OECD, ADB and IFPRI are outlined and reviewed critically with these economic issues in mind. The most recent study by Anderson and others suggests that China's agriculture will be forced to undertake more structural adjustment than forecast in earlier studies. The Chinese policies to deal with rural poverty will need to give increasing attention to structural adjustment support and migration from rural areas in the future. The WTO does not count such measures as a form of economic protection. In fact, a large number of measures to provide financial support to farmers, including support to poor farmers, are WTO exempt. As discussed these include 'green box' measure, certain development measures in developing countries, and 'blue box' measures. In addition, under the *de minimis* principle, China can provide economic protection on average of 8.5 per cent of the value of an agricultural product.

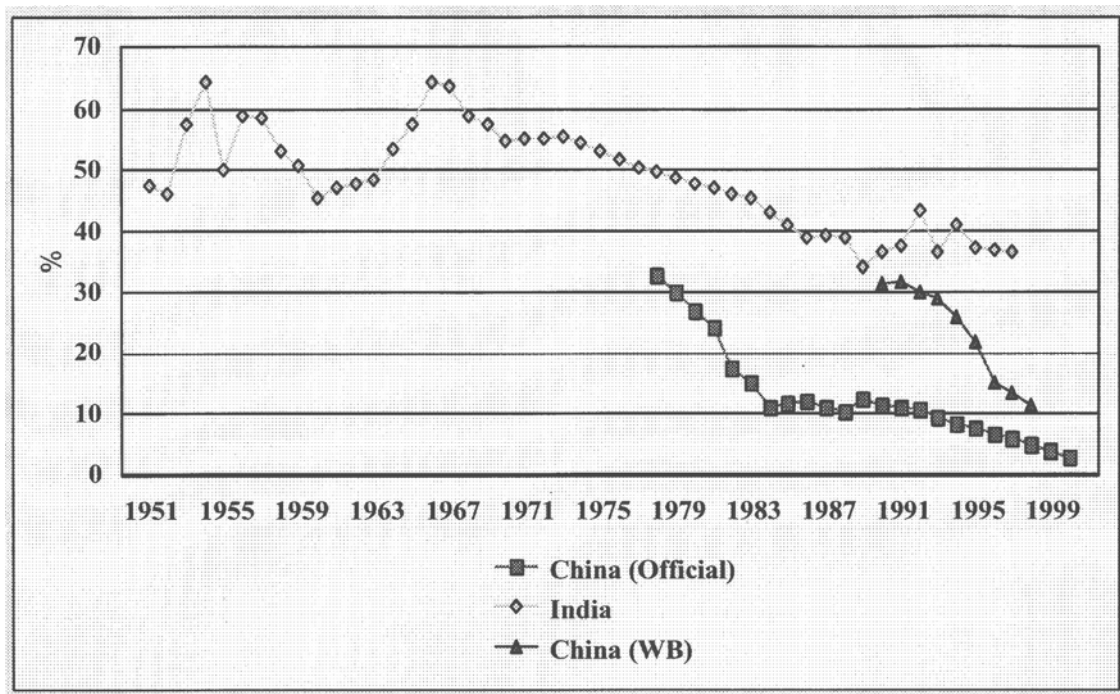
**Keywords:** agriculture, China, economic, reform, rural poverty, WTO

# RURAL POVERTY AND CHINA'S ENTRY TO WTO: PRESENT KNOWLEDGE, UNRESOLVED ISSUES AND CHINA'S POLICY OPTIONS

## 1. Introduction

Since beginning its economic reforms in 1978, China has made remarkable progress in reducing its incidence of rural poverty. This is so whether one relies on official Chinese estimates, those of the World Bank or other authorities. By contrast, India has unfortunately made much less progress in reducing rural poverty in the same period.

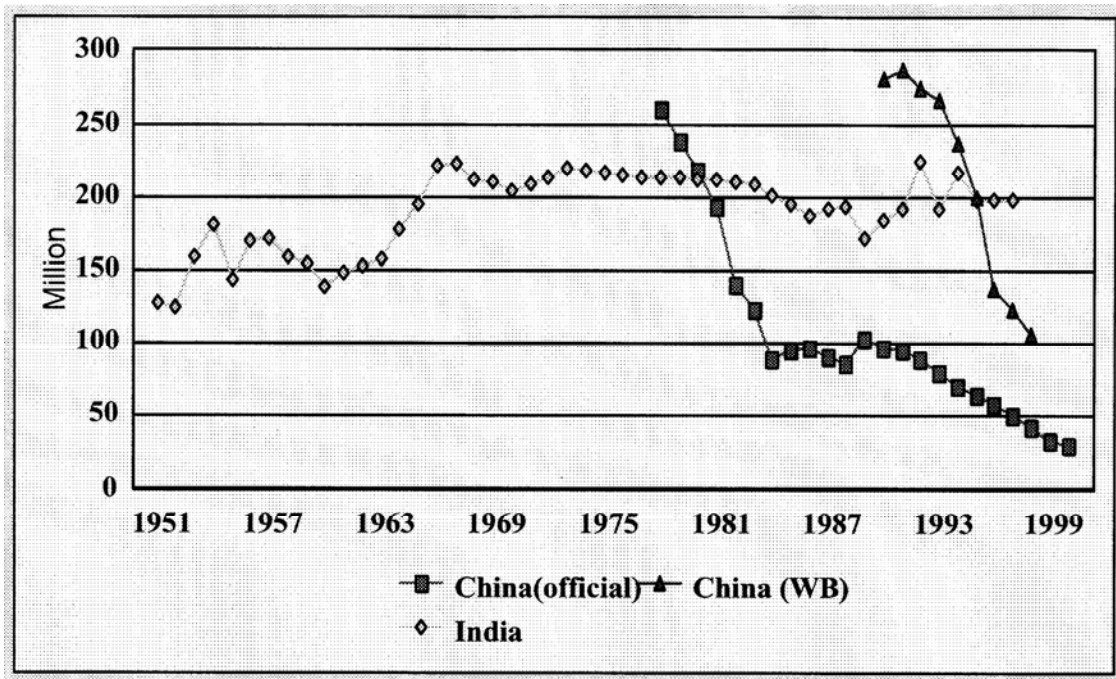
Since the beginning of the 1980s, the official incidence of rural poverty in India has fluctuated around 40 percent whereas according to official Chinese statistics, rural poverty declined in China from about 30 percent in the late 1970s to less than 5 percent by the end of the 1990s. The World Bank (2001), using a \$1 per day poverty line, estimated that the incidence of rural poverty in China was around 30 percent at the end of the 1980s but declined rapidly so that by 1996 it was 10 percent. Trends in the incidence of rural poverty in China and India are evident from Figure 1.



Source: Fan, S. *Public Investment, Growth and Poverty Reduction in Rural China and India*. Accessed 14/10/02: [http://poverty.worldbank.org/files/12402\\_SFan-Presentation.pdf](http://poverty.worldbank.org/files/12402_SFan-Presentation.pdf)

**Figure 1** Rural Poverty Incidence in China and India

In addition, significant differences are apparent in trends in the number of rural poor in China and India and in the relative numbers involved. This can be seen from Figure 2. According to the statistics illustrated, the absolute number of the rural poor in China is now much lower than in India. The number of rural poor in India has since the early 1960s remained relatively constant at 200 million. By contrast, the number of rural poor in China during this period has fallen from over 250 million to about 100 million if the World Bank (2001) estimates based on the \$1 per day poverty line are used, and to much less than 50 million if the official Chinese poverty line is used. In fact in 1999, only 3.0 percent of China's rural population was officially in poverty. This amounted to 34 million persons in poverty.



Source: Fan, S. *Public Investment, Growth and Poverty Reduction in Rural China and India*. Accessed 14/10/02: [http://poverty.worldbank.org/files/12402\\_SFan-Presentation.pdf](http://poverty.worldbank.org/files/12402_SFan-Presentation.pdf)

**Figure 2** Number of Rural Poor in China and India

However, there are no grounds for complacency about rural poverty in China. Many rural people remain almost in poverty and the risk to many of falling into poverty still remains high, and this risk is likely to have added dimensions as market systems continue to expand under the influence of China's entry to the WTO. Furthermore, as is well known, the incidence of rural poverty in China is very unevenly distributed geographically, both between provinces and within provinces. Nevertheless, the incidence of rural poverty on average is considerably higher in China's western region than in its eastern region. For example, in 1996

the incidence of rural poverty in Xinjiang was 27.4 percent, in Yunnan 22.9 percent and in Gansu 22.7 percent compared to 6.3 percent for the whole of China (World Bank, 2001). In addition, in these provinces, a high proportion of the poor are well below the poverty line and therefore, virtually destitute. This is indicated by the high squared poverty gap for these three provinces. In 1996, this gap was 3.58 for Xinjiang, 1.87 for Gansu and 1.42 for Yunnan compared with 0.56 for the whole of China <sup>1</sup>(World Bank, 2001). These provinces have major concentration of minorities and the incidence of poverty amongst minorities is on average higher than for the Han Chinese. Factors such as soil of poor quality, land on steep slopes or land located in arid regions, difficult climatic conditions, problems of market access and so on are often associated with rural poverty.

Although China has been outstandingly successful in recent decades in reducing the incidence of its rural poverty, rural poverty is still of concern. The remaining rural poverty in China is likely to be the most intractable in nature. Furthermore, China's entry to the WTO adds to the complexities involved in the alleviation of rural poverty in China. While China's entry to the WTO provides China with some new economic possibilities, it also involves some restrictions on Chinese economic policy. The question remains unresolved of whether China's entry to WTO will increase or decrease its incidence of rural poverty in the next few years. The question also needs to be considered of how best China may take advantage of its post-WTO situation to continue to reduce its incidence of poverty. The purpose of this paper is to throw some light on these matters.

This will be done by considering recent reports of international bodies (such as the World Bank, OECD, Asian Development Bank and IFPRI) and their associates dealing with China's rural poverty and/or rural economy. Not all of those reports relate directly to China's entry to the WTO but all have at least indirect relevance. Their relevance for further progress and future policies for alleviation rural poverty in China is specifically examined. This is followed by a consideration of the scope for policies aimed at poverty reduction as provided for by 'exempt' measures under WTO covenants including "Green Box" measures, developmental measures, "Blue Box" measures and the *de minimis* principle. Then there is a brief discussion of how field studies can assist in the improved targeting and adjustment of policies for rural poverty reduction. Greater attention to such factors will be necessary for China in its post-WTO period. Concluding suggestions and comments finalise this article.

## **2. Findings of Internationally Sponsored Studies of Relevance to the Impact on Rural Poverty of China's Entry to WTO**

**World Bank Report:** The study by the World Bank (2001) on rural poverty and measures for overcoming it in China constitutes an important step in the analysis of poverty alleviation in China. However, it does not discuss the possible impacts on rural poverty of China's entry to WTO. Nonetheless, it does provide a significant overview of rural poverty and related policy issues in China prior to China's entry to the WTO. Furthermore, the data and information reported has been used by others (e.g. by Weiss, 2001) to speculate on the impact on rural poverty of China's entry to WTO.

This World Bank report begins by examining trends in rural poverty in China in the 1990s and concludes that a significant reduction in rural poverty has occurred whether the Chinese official poverty line is used or the World Bank poverty line of a dollar per day. It suggests, however, that the Chinese poverty line is too low and that for the purpose of international comparison its use may result in a comparative understatement of the incidence of rural poverty in China. Nevertheless, if the World Bank's poverty line is used, it is clear that China's rural poverty problem is not now of the same magnitude as India's (see Figures 1 and 2). The location of the Chinese poor and their characteristics are also identified in this report.

The report puts considerable emphasis on the macroeconomic context as a factor in poverty alleviation in China. It suggests that rapid and continuing macroeconomic growth in China has played a key role in reducing the incidence of poverty in China in recent decades. China's economic reforms and changes in its international policies since 1978 have contributed significantly to China's economic growth and have been accompanied by a substantial reduction in its incidence of rural poverty.

Although aggregate economic growth can play a significant role in reducing rural poverty, especially in the early phases of economic development, it is by no means a sufficient condition for rural poverty reduction. Furthermore, continuing macroeconomic growth is likely to become of reduced effectiveness in reducing remaining levels of rural poverty as the incidence of rural poverty reaches lower levels, as in China. Greater targeting and a more micro-oriented approach is likely to be needed as rural poverty reaches lower levels of incidence.

While the effectiveness of continuing macroeconomic growth in continuing to reduce rural poverty is likely to fall with the passage of time, it is likely that in a developing country, such as China, a significant reduction or reversal of economic growth will raise the incidence of rural poverty. For instances, this may occur if guest workers find it increasingly difficult to find work in urban areas and must return to their rural village, or if the rural poor find it more difficult to find off-farm work and are, therefore, unable to supplement their farm income.

This matter is of importance in considering the impact on China's macroeconomic growth of its entry to WTO and its possible consequences for its rural poverty. It also highlights the fact that the sectors of the Chinese economy are now more interdependent than in the past and that the consequences of rural poverty of China's entry into the WTO do not depend entirely on its impact on agriculture and on the rural economy.

World Bank (2001) also reviews poverty reduction programs in China. It suggests that improved targeting of poverty alleviation measures are required to ensure that those most in need are benefited. In order to more effectively meet the needs of the poor, a new approach to implementing poverty relief program is recommended. Because a high proportion of the rural poor occur in mountainous areas, the World Bank (2001) devotes a substantial amount of its report to measures to increase productivity in mountainous areas. However, it does not give comparable attention to arid and semi-arid areas even though the incidence of poverty is also high in arid or semi-arid provinces such as Xinjiang and Gansu.

The World Bank found that those experiencing poverty in rural areas are entirely or almost entirely dependent on farm income. Those farmers with higher income usually supplement their income with off-farm work. The very poor seem to have weak links with the wider monetary economy. However, this may be more a consequence of being poor than a reason for being poor.

It might also be observed that several donors have expressed support for the development of integrated poverty reduction programs involving significant local community participation. The World Bank, for example, supported the Western Region Poverty Reduction Program with this aim in mind (State Statistical Bureau, 2000).

**OECD Report:** In 2002, the OECD released a major report on China in the World Economy (OECD, 2002a, b) that takes into account likely impacts on the Chinese economy of China's entry to the WTO. The report includes sector studies of agriculture and rural industries, consideration of China's rural economy and economy-wide issues, such as prospects and policies for China's regional development. While rural poverty is not the prime focus of this report, it is given some consideration (OECD, 2002b, pp.108-109) and several of its findings have implications for the possible effects on rural poverty of China's entry to WTO.

Of some relevance for the incidence of rural poverty are

- (1) the likely patterns of farmgate agricultural prices following China's entry to WTO;
- (2) the expected economic fortunes of town and village enterprises (rural enterprises) in areas subject to a high incidence of poverty;
- (3) the prospects for state-owned enterprises, particularly in Western China, and
- (4) for foreign direct investment that might be advantageous to the poor.

Chapter 3 of OECD (2002b) provides useful insights into the consequences for rural incomes and employment of China's trade liberalisation. China's domestic producers are expected to face lower prices for wheat, maize, cotton and soybean (OECD, 2002b, p.116). Lower prices for edible oils, sugar and wool may also occur as import quotas and tariffs are revised, and the exclusive rights of state trading enterprises to trade in such commodities is curtailed (OECD, 2002b, pp.750-751). See also Colby et al. (2001).

The impact on the income of individual farmers producing these commodities will depend on the extent to which they depend on these commodities for their income and their ability to switch to production of other commodities that either have not shown a fall in price or in some cases may have enhanced prices due to increased export prospects. In the latter respect, China's labour-intensive crops such as those involving horticultural (fruit and vegetable growing) are thought likely by the OECD to benefit by its improved access to foreign markets as a result of China's entry to WTO.

Using neoclassical economic theory, it is widely argued that China will find it is increasingly economic to specialise in labour-intensive economic activities as its trade liberalisation proceeds. There is, however, a risk that this will not benefit the rural poor. The World Bank (2001) found that the rural poor tend to specialise in grain production and production of

maize is popular in hilly areas. These sellers of grain can expect lower income from grain sales in the future. At the same time, many of the very poor are net purchasers of grain. They could benefit to some extent by lower grain prices.

Possibly those most at risk are cereal producers who rely for their income mostly on grain sales, are only just above the poverty line and who lack opportunities to switch to alternative types of crops because of soil and climatic conditions and for whom livestock production is not economically viable. There is a risk that such farmers will be pushed below the poverty line, if they cannot find off-farm employment.

It is also pertinent to note that land-intensive agriculture in China is concentrated in its Western region and labour-intensive agriculture in its Eastern region (see OECD, 2002b, Figure 1.8, p.75). To a considerable extent, this already represents regional agricultural specialisation within China according to comparative advantage. Given this pattern, it may be difficult for the Western region to benefit from any increased demand for labour-intensive agricultural commodities. At the same time, the Western region is likely to face increased international competition for the supply of land-intensive or (broadacre) agricultural commodities as a result of China's entry to the WTO. If this is so, agricultural incomes in the West could suffer and there may even be a risk of a rise in the incidence of rural poverty in the West.

There are also some concerns about how well town and village enterprises and state-owned enterprises in the West will be able to compete after WTO entry and it is still not apparent that a large injection of foreign direct investment to these areas is likely to occur. If this is so, pressures for out migration from the West may increase.

OECD (2002b, Ch. 3) argues that farmers in remote areas may be isolated from international trade effects because of high market transaction costs. It states, in relation to remote farmers that: "Since most of their economic activities are in their own village or township, the prices they are facing or selling for are determined locally and are not affected by what happens far away in the nation's border areas" (OECD, 2002b, p.118). However, the extent to which this is so requires further investigation as it may depend on the nature of the commodity and complete isolation is unlikely for all commodities. Relying on this argument and other considerations, OECD (2002b, p.120) maintains that poor villages in which most villages rely

on full-time agriculture for their livelihood will be relatively unaffected by China's WTO entry. Using the approach of Rozelle et al. (1999), it classifies such villages as remote. In addition, three other categories of villages are identified, namely those in which a substantial amount of income is earned from migration, from micro-enterprises and from large enterprises. Average village income tends to rise as dependence on these respective modes of production alters towards greater dependence on large enterprises.

According to OECD (2002b, p.120), poorer villages will be little affected by China's WTO entry because villagers are often relatively self-sufficient, have low levels of cash income and "sell their commodities into markets that are relatively isolated from the rest of the economy". If they are purchasing tradeables, they might even gain by lower prices. In fact, OECD (2002b, p.120) concludes: "In short, it can be expected that the poorest of the poor in China will either not be affected at all (by trade liberalisation) because of their remoteness and high degree of self-sufficiency, or because they will gain nearly as much as they lose". However, clearly this argument requires further elaboration and empirical testing before being accepted. The OECD (2002b) report goes on to state that most probably the largest negative effect of trade liberalisation policies will be on those rural dwellers in middle-income categories. Nevertheless, because the OECD's assessment is a conditional one, it is quite difficult to draw a definite conclusion, as can be seen from the excerpt from the OECD (2002b) report reproduced in Appendix I. Nevertheless, the report does highlight several important aspects that require consideration in assessing the impact on China's rural poverty of its entry to WTO.

OECD (2002 a,b) points out that the importance of agricultural production in China and its agricultural exports are on the decline and that this trend will continue without China's entry to WTO. Anderson (1997), for example, also comes to this conclusion and suggests that China's accession to WTO will only slightly accelerate the trend. Using the Global Trade Analysis Project (GTAP) model, Anderson concludes that China's WTO accession will only have minor effects on China's agriculture. If so, it would not appear to be a major factor likely to add to rural poverty. However, some caution may be warranted because as OECD (2002b, p.774) points out, this GTAP model has several limitations e.g. the model assumes perfect competition and a high degree of labour mobility.

McKibbin and Wilcoxon (1998) outlined a general equilibrium model in which they predicted an increase in the rate of growth of China's GDP of 0.85 percent after its WTO entry after a short period of industrial adjustment. If poverty reduction is associated with economic growth, this would suggest some beneficial effects on poverty alleviation from China's WTO entry. However, as pointed out below, there is no a close connection between poverty reduction and macroeconomic growth.

Wang (1999) completed an important study from which he predicted that the elimination of quotas under the Multi-Fibre Agreement (MFA) will substantially increase China's production, employment and exports of textile and apparel products. He states that the expansion of the labour-intensive manufacturing sector would bid productive resources away from farming, boost domestic demand for food products, and increase agricultural imports (while decreasing exports). Wang (1999) estimated that production and employment in wheat, other grains, and plant fibres (such as cotton) would fall<sup>2</sup> and imports of these products would rise substantially (OECD, 2002b, p.769). This suggests that the impacts on agriculturists depend heavily on their prospects for engaging in more labour-intensive horticulture or obtaining jobs in relatively labour-intensive industries, such as textile production and garment manufacture. The income prospects for those agriculturalists in poverty, or likely to be in poverty in rural areas, following China's WTO entry will depend on their ability to take advantage of new opportunities as the Chinese economy changes its structure.

The OECD (2002a, p.12) estimates that 70 million workers will exit Chinese agriculture during this decade and that China's entry to WTO will only increase this outflow by 2 to 3 million. However, it expects that only a fraction of these workers will be able to find jobs in rural enterprises (TVEs) and presumably will need to relocate to larger cities to find jobs. The OECD (2002a, p.12) therefore stresses that the development of China's rural economy is increasingly dependent on conditions and policies affecting the economy as a whole. This may also be increasingly so for the emergence and reduction of rural poverty. All parts of the Chinese economy are becoming more interdependent.

**Asian Development Bank Study:** Weiss (2001) completed a useful study of Western China, a region in which poverty is of particular concern in China. His results support the view that caution is required in accepting the World Bank's (2001) suggestion that national economic

growth in China is a powerful force for rural poverty reduction. Weiss (2001) points out that agricultural growth is usually more poverty-reducing than non-agricultural growth.

Taking into account provincial economic growth rates in Western China, Weiss (2001) finds that the rural poor have benefited little from overall economic growth. Particularly in the Western region, he finds that growth in grain production is a key factor in poverty reduction. He states (Weiss, 2001, p.27) that “Grain production as the main income source for most of the rural poor in the Western region, since the better-off will be able to diversify for example by investing in livestock or tree planting; hence how grain production and prices change will be the dominant factor in determining poor households’ position in relation to the poverty line”. Since grain prices are expected to fall in China, partly as a result of its WTO accession, this prognosis is not favourable for the incidence of poverty in Western China.

Weiss (2001, pp.27-28) summarises his findings as follows.

“In the West there are serious pockets of rural poverty, where poor groups have remained relatively untouched by the general rapid rise in prosperity. This implies that the simple assertion that economic growth in the aggregate will take care of the poverty problem in the West is likely to be highly optimistic, at least in the short term. In searching for an explanation for this weak relation between general growth and provincial poverty reduction two factors are likely to be particularly important. First, in the areas of serious pockets of poverty locational disadvantages may both lower returns to factors based there and impede links with the wider regional and national markets. Second, in terms of migration whilst the movement of the labour surplus off the land in parts rural China has been an important recent phenomenon it is likely that the very poor – that is those below or close to the official poverty line – have only benefited very modestly from this process because of their own personal and family disadvantages.”

He continues by considering various alternative policy measures for reducing poverty in Western China and makes the following recommendations:

- “ – Support grain prices for poor farmers, if necessary by subsidizing procurement prices when market prices fall below a critical level;
- Encourage greater labour mobility, for example by improving the work of labour bureaus and further modifying the household registration system;

- Persist with further voluntary resettlement schemes;
- Target more closely poor villages and townships and provide a package of related inputs including both physical and social infrastructure;
- Encourage new investment in the Western Region, for example by the provision of long-term finance and training schemes, and where feasible continue to offer regional tax incentives” (Weiss, 2001, p.38)

**The International Food Policy Research Institute (IFPRI):** Fan et al. (2000) outline a model that provides interesting results about the returns from different types of public rural investment in China in terms of adding to agricultural GDP and in reducing poverty. These results are of potential importance for poverty relief following China’s entry to WTO because rural support via all of the types of public investments considered by Fan et al. (2000) are WTO-exempt. Fan (no date) gives further consideration to this matter and in so doing makes some comparisons between China and India.

The main results are summarised in Table 1. This indicates that the highest reduction in poverty incidence in Western China can be achieved by public investment in agricultural R&D, education and provision of infrastructure (roads, electricity and telephones). Table 2 provides a ranking of the effects of different categories of public investment for China and India.

**Table 1**

Returns to Rural Investment in China

	<b>Coastal</b>	<b>Central</b>	<b>Western</b>	<b>Average</b>
<b>Returns to Agricultural GDP</b>	<i>Yuan per yuan expenditure</i>			
R&D	8.6	10.02	12.69	9.59
Irrigation	2.39	1.75	1.56	1.88
Roads	1.67	3.84	1.92	2.12
Education	3.53	3.66	3.28	3.71
Electricity	0.55	0.63	0.4	0.54
Telephone	1.58	2.64	1.99	1.91
<b>Returns to poverty reduction</b>	<i>Number of poor reduced per 10,000 yuan expenditure</i>			
R&D	1.99	4.4	33.12	6.79
Irrigation	0.55	0.77	4.06	1.33
Roads	0.83	3.61	10.73	3.22
Education	2.73	5.38	28.66	8.8
Electricity	0.76	1.65	6.17	2.27
Telephone	0.6	1.9	8.51	2.21
Poverty loan	0.88	0.75	1.49	1.13

Source: Fan (no date)

**Table 2**  
Ranking of Public Investment Effects

	<b>China</b>	<b>India</b>
<i>Ranking of Returns to Agricultural Production</i>		
Agricultural R&D	1	1
Roads	3	2
Education	2	3
Telecommunications	4	
Irrigation	5	4
Electricity	6	8
Health		7
Soil and Water Conservation		6
Anti-Poverty Programs		5
<i>Ranking of Returns in Poverty Reduction</i>		
Agricultural R&D	2	2
Roads	3	1
Education	1	3
Telecommunications	5	
Irrigation	6	7
Electricity	4	8
Health		6
Soil and Water Conservation		5
Anti-Poverty Programs	7	4

Source: Fan (no date)

Fan (no date) concludes that public investment in agricultural research, education, and rural infrastructure are the three most effective forms of public spending for promoting agricultural growth and poverty reduction. Little trade-off is required between these investments, in his view, in terms of their impact on agricultural growth and poverty reduction.

He continues by claiming that government spending on anti-poverty programs has had little impact on poverty reduction, mainly because of inefficiency in targeting and misuse of funds. He suggests that a better long-term solution is to use these funds for rural education and infrastructure and presumably, in the light of Table 2, he should also add agricultural R&D.

Despite the significance of the IFPRI studies, it would be wise not to accept all of the conclusions and recommendations involved without qualification. These studies are based on Chinese empirical data for its provinces in the period 1970/1997. Regression analysis using a particular model is applied to this data. When applying such analysis, it is often difficult, or impossible, to distinguish between cause and effect, and circular causation may be present. For example, rates of investment in agricultural R&D, education and rural infrastructure may partly rise as a result of an increasing level of per capita income. Furthermore, there is always the risk of confusing association with causation. Finally, from a policy viewpoint, time-lags are important. Although extra investment in agricultural R&D, education and rural infrastructure may be relatively effective in reducing the incidence of rural poverty, this may only occur after a substantial lag.

**More Recent World Bank Research of Relevance:** The World Bank has a small group project entitled “China’s WTO Accession, Policy Reform and Poverty Alleviation” and Anderson et al. (2002) have completed a draft paper involving interaction with this group. These authors use a modified GTAP model that takes more appropriate account of China’s WTO-accession reforms compared to Anderson (1997) and which also incorporates a frictional element for labour movements of agriculture. Table 3 summarises the sectoral volume effects of China’s WTO-accession reforms comparing the predicted situation in 2007 with 2002. It indicates significant declines in all agricultural producer prices and falls in volumes of production in most agricultural sectors. Only production of plant-based fibres (e.g. cotton) shows a significant rise<sup>3</sup> and livestock production displays, at most, a moderate rise.

**Table 3**

Sectoral Volume Effects of China's WTO Accession Reforms, 2002 to 2007

	<b>Producer price (%)</b>	<b>Consumer price (%)</b>	<b>Production (%)</b>
Rice	-1.7	1.0	-2.1
Wheat	-2.5	0.4	-2.1
Feedgrains	-2.7	1.9	-2.2
Vegetables and fruits	-2.7	-0.1	-3.4
Oilseeds	-3.6	-4.6	-7.8
Sugar	-2.7	-3.1	-6.85
Plant-based fibres	-0.7	3.1	15.8
Livestock and meat	-2.5	0.2	1.3
Dairy products	-2.3	0.2	-2.1
Other food products	-2.5	-1.8	-5.8
Beverages and tobacco	-2.7	-6.9	-33.1
Forestry, fishing and mining	-1.5	1.2	-0.9
Textiles	-2.5	-3.1	15.7
Wearing apparel	-1.3	-1.9	57.2
Leather products	-1.6	0.0	3.8
Petrochemical products	-1.4	0.9	-2.4
Metal and metal products	-1.1	1.3	-2.1
Motor vehicles and parts	-4.7	-4.2	1.5
Electronic equipment	-2.1	-1.7	0.7
Other manufactures	-1.4	0.9	-2.2
Trade and transport	-0.9	1.7	0.0
Construction	-0.9	1.7	0.9
Communications	-0.7	1.9	-0.6
Commercial services	-0.6	1.9	-2.0
Other services	-0.9	1.6	-1.7

Source: Anderson et al. (2002, Table 9)

Given these results, the situation for rural families highly dependent on agricultural sales is not favourable. Anderson et al. (2002, pp.8-9) conclude, "Our analysis suggests that rural non-farm incomes will rise on average absolutely and possibly even relative to urban incomes. However, some farm households facing increased import competition" will be worse off according to Anderson et al. (2002, pp8-9).

### **3. Issues about Rural Poverty Left Unresolved by Previous Studies of Impacts of China's Accession to WTO**

Earlier studies of poverty in China, such as World Bank (2001), over-emphasized the capacity of growth of national income to bring about a reduction of rural poverty. Follow-up research by Weiss (2001) demonstrated that there is not a strong link between macroeconomic growth at the Chinese provincial level and reduction in rural poverty in Western China. In Western China, growth in grain production and in agricultural production generally are much more important influences in alleviating rural poverty.

Early studies by Anderson (1997) using the GTAP model suggested that China's entry to WTO would only add only slightly to economic trends already evident in Chinese agriculture. However, Anderson et al. (2002), using a more sophisticated GTAP model and allowing more realistically for the conditions that China has agreed to for its accession to WTO, now seems to find that the impact of China's WTO entry on its agriculture will be greater than originally estimated.

OECD (2002a) also concluded that the overall additional impact of China's WTO-entry on its agriculture would be small. In OECD (2002b), an attempt is made to predict changes in the incidence of rural poverty as a result of China's entry to WTO. It is basically argued that the poor in remote areas will be little affected because they are decoupled from the rest of the economy. Those closer to industrial centres are expected to gain by employment in manufacturing or a greater demand for labour-intensive crops. The poor and near poor who are neither remote nor close to industrial centres could lose if they depend on marketed agricultural products to a considerable extent for their livelihood. However, in some cases, this could be offset by lower prices for traded inputs. Nonetheless, the overall effect on this group is not clear from the OECD analysis presented because it is not specific, is conditional and is not supported by the use of empirical data. Nevertheless, the general OECD conclusion appears to be that China's entry to the WTO will add little to the incidence of rural poverty in China.

Anderson et al. (2002, pp.8-9), on the other hand, consider it likely that the incidence of poverty may rise in remote regions of China and state "... some farm households facing increased import competition may be worse off, *ceteris paribus*, because they are located in

areas that are too distant from expanding industrial and service activities to benefit directly from that expansion in non-farm output and are too poorly served with infrastructure to attract such activities to their own region or to diversify into producing farm goods whose relative price has risen, or because they do not have relatives able to repatriate non-farm earnings to them. The incidence of rural non-farm poverty will fall mainly because of the growth in wages of unskilled workers in rural non-farm activities, but poverty may well increase in agriculturally based hinterland provinces a long way from markets and in regions poorly served with the necessary infrastructure to attract investment in such activities as textiles and clothing. National self-sufficiency in food, feed and fibre will fall somewhat, particularly as the demand for livestock products grows with income gains from trade reform and as exports of meat products and of textiles and clothing expand.”

The economic prognosis for Chinese agriculturalists following China’s entry to WTO is less favourable in Anderson et al. (2002) than in Anderson (1997). Anderson (2002) predicts that producers’ prices of all Chinese agricultural products will fall in post-WTO China. Between 2002 and 2007 China’s production of all major agricultural products will fall except for plant, based fibres (such as cotton)<sup>4</sup> and livestock and meat. The latter will increase by only 0.2 percent (see Table 3). Beverage and tobacco production will fall by a massive 33 percent. Even vegetables and fruits, believed by OECD (2002) to involve a form of labour-intensive agriculture and predicted by the OECD to expand production, are forecast by Anderson et al. (2002) to show a decline in production by 3.4 percent. Overall this indicates falling revenues for Chinese agriculture. Although some agricultural inputs will be cheaper following China’s WTO accession, overall the relative net revenue for agriculture seems likely to decline. Clearly comparative returns to agriculture decline overall.

The outlook for the rural poor seems as though it should be of concern. Those current rural poor who show a high degree of reliance for their livelihood on marketed agricultural products will be worse off if they remain in agriculture. Furthermore, many farmers who are now above the poverty and who rely for most of their livelihood on agricultural sales are likely to be pushed below the poverty line if they remain dependent on agriculture.

The poor in mountainous areas and in semi-arid and arid areas will most likely face more difficult economic conditions. However, it is conceivable that the economic position of those poor who are not dependent on markets will show little change. Yet if they are net purchasers

of grains, they may pay more for these since the consumer price for both rice and wheat are expected to rise (see Table 3) and maize prices may also rise.

In some mountainous areas in the Southwest, tobacco is an important crop. Both prices and production of tobacco are predicted to fall significantly now China has joined the WTO. A fall in tobacco prices and production can be expected to have negative consequences for poverty in such areas. Furthermore, the Western region of China is unlikely to see a substantial increase in livestock and meat production. In China as a whole, the predicted increase in production from this sector is only 1.3 percent and at the same time, producer prices are expected to fall by 2.5 percent. It seems likely that most of the increased production will occur in coastal provinces using intensive livestock systems. Livestock production can be expected to become more reliant on imported feed grains, and the cost of imported ingredients near the east coast of China will be lower than in the interior taking into account transport costs.

If anything, after China's entry to WTO, forces are likely to operate to increase the differences in income between western and coastal China and it is likely that the incidence of rural poverty will rise in interior China. This is mainly because East China is better placed geographically for engaging in international trade and commerce. Industrial and population concentration in the east of China creates a strong centripetal force for concentration of economic growth there. Because of infrastructure, geographical and other comparative disadvantages, West China is unlikely to attract substantial investment in its industrial development. If this is so, it will add to the difficulty of economic adjustment in the West because opportunities for new local jobs in the non-farm sector in the West are likely to be severely restrained. Those in rural poverty in the West may have few opportunities for local off-farm employment and for migration to local urban centres to find work. They may have greater job opportunities in the east of China but this is far distant. Furthermore, for many of the poor, the cost and risks of searching for work in the East are high. Furthermore, substantial migration could threaten the sustainability of some communities, including minority communities, in the West both economically and culturally. The situation is very complex, and is already receiving a high priority in policy formulation in China.

#### **4. Possible Policy Options under the WTO Agreement on Agriculture**

The risk of rural poverty increasing in China as a result of increased market liberalisation following China's entry to the WTO seems considerable. The problems that seem likely to emerge have both economic and social (community-wide) dimensions. It is prudent to explore alternative policy responses.

It is possible that the policy advice by Anderson et al. (2002) reflects the emerging consensus of the group involved in World Bank's project on China's WTO Accession, Policy Reform and Poverty Alleviation. Anderson et al. (2002, p.9) state that in post-WTO China: "If some farmer's incomes are to worsen relative to those of non-farm households, and if there is a fall in agricultural self-sufficiency, two of the most obvious policy implications have to do with rural human capital/R&D/infrastructure investments and grain marketing. First, the government might consider further investments in agricultural research and in basic rural education and health services and rural infrastructure to reduce the adverse effect of trade reform on poverty incidence and perceived food security. Second, the government might reduce its regulation of grain marketing and in particular cease compulsory procurement at less than market prices. It might also look to ways to free the mobility of farm labour, at least to rural town and smaller cities, to make it easier for those in depressed rural areas to find more lucrative off-farm work (See Johnson 2001).

If all that was considered insufficient support for incomes of the poorest farm households, short-term adjustment assistance via infra-marginal (and hence not output-inducing) producer price subsidies could be provided so as to boost their incomes without boosting farm output (in an equal but opposite way to that used to tax farmers in earlier decades – see Sicilar 1988). Such an intervention could well be deemed WTO-consistent because of its decoupled nature, and in any case if it was just targeted to poor farmers it is unlikely to ever exceed 8.5 percent of the value of China's output of the product concerned (its *de minimis* exemption limit for product-specific support under Article 6.4 of the WTO's Agreement on Agriculture)."

However, agricultural research may be slow-acting in its effect on poverty and also needs to be well targeted. In addition, rural education also is likely to be subject to a lag in having an impact on poverty, and increased education often has to be coupled with other opportunities to obtain adequate economic advantage from it e.g. support for emigration, or investment in

local industries. There is also the problem of causality mentioned earlier. While these strategies have long-term merit, their effectiveness depends on how they are coupled with other economic factors. According to OECD (2002b), China does not impose compulsory grain purchases on farmers in poverty. If more farmers join those in poverty, this exemption may have to be extended. Labour mobility will need more attention but policy considerations in this area are complex. For example, heavy outward migration from rural areas may threaten the sustainability of some local communities, and could result in rising urban unemployment and growing numbers in poverty in urban areas with associated social problems. The influx of rural dwellers to urban areas may need to be regulated to limit serious economic social problems in urban areas. Complete dismantling of movements on labour at this time could be unwise.

Nevertheless, despite existing regulations on labour movements, millions of workers have left agriculture and have become illegal urban migrants, and this process is likely to continue. Many migrants remain unemployed in urban areas. Urban unemployment may be as high as 30 percent, and is creating considerable difficulty for structural change in China (Xiao, 2002). In the long term, however, structural adjustment is likely to be the most effective means to deal with most types of poverty, but not all.

Income-support schemes for the rural poor are still an option following China's entry to the WTO. Since it is a strong plank of Chinese policy not to give 'handouts', income support may be linked to requirements to carry out or contribute labour to capital improvement on farmland or communally e.g. building of farm or community dams, contribution of labour and assistance with local infrastructure maintenance or provision.

There continues to be considerable scope for China to assist its rural poor following its accession to WTO. The WTO Agreement on Agriculture recognizes the WTO members have particular rights to provide economic support to farmers but restricts the manner in which that support can be provided. The restrictions are basically intended to prevent domestic prices for products deviating too much from international prices so as to not undermine the WTO's goal of economic efficiency in resource allocation internationally.

Three sets of measures to support the economic situation of farmers are not subject to reduction requirements under the Agreement on Agriculture. These exemptions are mainly

intended to take account of disparities between rural and urban incomes, and to allow for structural adjustment, rural development, environmental concerns and food security. These exemptions are

- “green box” measures which meet general and specific criteria so as to have no, or at most minimal, trade-distorting or production-related effects;
- certain developmental measures in developing countries;
- “blue box” measures which cover certain direct payments under production-limiting programmes.” (WTO, 2002).

In addition, under the *de minimis* principle, product specific support up to 10 percent of the value of an agricultural product is allowed for developing countries although it seems that China has agreed to 8.5 per cent. An average measure of support (AMS) is estimated in this case. As pointed out by Anderson et al. (2002), it would be possible to provide price support specifically targeted to the poor without violating the *de minimis* principle in China’s case.

Appendix II contains the WTO’s explanation of exempt support measures and those subject to the *de minimis* principle.

Government expenditure targeted to the poor (or generally) on research, pest and disease control, agricultural training and inspection service, marketing and promotion services and infrastructure are all WTO-exempt. So also is support for structural adjustment in agriculture, including support for outward migration from agriculture. As can be seen from Appendix II, food security policies can also be classified, in certain circumstances, as “green box” measures.

“Green Box” measures are involved also in payments to farmers to change their land use patterns for environmental or similar reasons, for example to replace land used for cropping by forest or grassland. Such measures are WTO-exempt. China has adopted some such measures in environmentally sensitive regions where many of the rural poor occur. These are often regions inhabited by minorities. Economic assistance to poor areas may also be provided by rural development measures as mentioned below.

“Blue Box” measures are also WTO-exempt. These mostly involve payments to suppliers to reduce production of specific products. The reason for doing this is not a material consideration.

Development measures are also not subject to the *de minimis* principle in developing countries. “The measures that fit into the development category are measures to encourage agricultural and rural development and they are an integral part of the development programmes of developing countries” (WTO, 2002). They include investment subsidies for farmers and input subsidies for low income producers, e.g. subsidies on seed or fertilizers.

From the point of view of the WTO, exempt measures to support economic activity do not count as protective barriers to international trade. However, all non-exempt measures are taken into account by WTO. In the case of agriculture in China, under the *de minimis* principle, these should not exceed 8.5 percent of the total value of agricultural production.

Thus, despite WTO rules, considerable scope still exists for the Government of China to assist China’s rural poor following China’s WTO accession.

## **5. Concluding Comments**

Following China’s entry to WTO, the Chinese Government will need to give increasing attention to the incidence of rural poverty. Indications are that its incidence of rural poverty will rise. Furthermore, unless countermeasures are taken, income disparity between the West and the East of China is likely to grow. In addition to this, new pockets of rural poverty may emerge among market dependent farmers.

Considerable scope exists under WTO rules for the Chinese Government to target alleviation of rural poverty. However, public funds for this purpose in China are limited, partly because it is still a developing country. Therefore, public funds for poverty alleviation need to be well spent. This involves careful identification of the occurrence of rural poverty and efficient alleviation of it. Changing issues and emerging problems need to be quickly identified and specific measures to deal with these need to be explored. Following China’s entry to WTO, greater attention will need to be given to facilitating structural or industry adjustment to avoid new pockets of poverty that may arise with market movements.

Surveys of rural communities can play a useful role in this regards. Such surveys can help pinpoint emerging poverty and changes in its nature, may help to identify suitable policy responses at the local level, and can be used to gauge potential reactions to poverty alleviation measures e.g., likely reactions of the poor to policies to assist migration, and identification of barriers to their migration, and to identify financial support needed to help poor farmers change their composition of production. Appropriate village surveys and interaction involves a side-by-side approach to policy formulation and implementation. This can be a very useful way of identifying the emergence and continuation of poverty problems as well as an important step towards finding effective means to address these problems.

## 6. Notes

1. The poverty gap for a poor individual equals the amount of income needed to bring this person up to the poverty line. When squared, it provides an index of the degree of poverty experienced, and it increases at an increasing rate with the size of the gap. The squared poverty gap for a population is an indicator of the severity and also degree of inequality of poverty present.
2. This is at odds with the prediction by Anderson et al. (2002) shown in Table 3.
3. This contrasts with the prediction of Wang (1999).
4. However, unlike Anderson et al. (2002), Wang (1999) predicts a fall in China's production of cotton after its entry to WTO.

## 7. References

- Anderson, K. (1997) "On the complexities of China's WTO accession", *World Economy*, **20**, 749-772.
- Anderson, K., Huang, J and Ianchovichina, E. (2002) "Impact of China's WTO accession on rural-urban income inequality", *Discussion Paper* No.0211, Centre for International Economic Studies, Adelaide.
- Colby, H., Diao, X and Tuan, F. (2001) "China's WTO Accession: Conflicts with Domestic Agricultural Policies and Institution", *The Estey Centre Journal of International Law and Trade Policy*, **2** (1), 190-210.
- Fan, J. (no date) "Public investment, growth and poverty reduction in rural China and India", International Food Policy Research Institute, Washington, DC.  
<http://poverty.worldbank.org/files/12402-Sfan-Presentation.pdf>. Accessed 03/09/02.

- Fan, S., Zhang, L. and Zhang, X. (2000) "Growth poverty in rural China: the role of public investment", *EPTD Discussion Paper*, No.66. International Food Policy Research Institute, Washington, D.C.
- Johnson, D. G. (2001) "Urban-rural disparities in China: implications for the future of China", The Second Huang Liam Memorial Lecture, CREDPR, Stanford University, 27 February.
- McKibbin, W. and Wilcoxon, P. (1998) "The global impacts of trade and financial reform in China", Working Paper 98-3, Asian Pacific School of Economics and Management, The Australian National University.
- OECD (2002a) *China in the World Economy: Domestic Policy Challenges - Synthesis Report*, Organisation for Economic Cooperation and Development, Paris.
- OECD (2002b) *China in the World Economy: Domestic Policy Challenges*, Organisation for Economic Cooperation and Development, Paris.
- Rozelle, S., Li, G., Shen, L., Hughart, A. and Giles, J. (1999) "Leaving China's farms: results of new paths and remaining hurdles to rural migration", *China Quarterly*, No.158, 367-393.
- Sicular, T. (1988) "Plan and market in China's agricultural commerce", *Journal of Political Economy*, **96**, 383-387.
- State Statistical Bureau (2000) *World Bank Western Poverty Project in China: Poverty Monitoring Report*, 1999.
- Wang, Z. (1999) "The impact of China's WTO entry on the world labour-intensive export market: a recursive dynamics CGE analysis", *World Economy*, **22**, 379-405.
- Weiss, J. (2001) "Poverty in Western China: exploring the policy options", Asian Development Bank Institute. A paper prepared for Fourth Anniversary Conference of the Asian Development Bank Institute, on "Achieving Poverty Reduction: Quality of Growth, Governance and Social Development", December 7, Tokyo.
- World Bank (2001) *China: Overcoming Rural Poverty*, The World Bank, Washington, D. C.
- WTO (2002) "Module 2: FAQs (2)",  
[http://www.wto.org/english/thewto\\_e/whatis\\_eleole/wto02/wt...](http://www.wto.org/english/thewto_e/whatis_eleole/wto02/wt...)
- Xiao, Z. (2002) "Unemployment aid needed", *China Daily*, October 31, p.4.

## Appendix I

### **An Extract from OECD (2002*b*, pp.119-120) Relating to the Incidence of Rural Poverty in China and Trade Liberalisation**

“While it might be thought that households in the poorest regions (who are mostly full-time farmers) will be hurt the most by the changes to agriculture introduced by trade liberalisation policies, it may be that households in these villages enjoy the most buffering by a number of factors. They will remain relatively unaffected to the extent that they are self-sufficient, have lower levels of cash income, and sell their commodities into markets that are relatively isolated from the rest of the economy. The net effect will depend on a number of factors, but even if farmers sell a substantial amount of their output, if they primarily purchase agricultural inputs and other tradable stable commodities (such as wheat and soybean oil for which prices are expected to fall due to trade liberalisation), any fall in revenues will be attenuated. In short, it can be expected that the poorest of the poor in China will either not be affected at all because of their extreme remoteness and high degree of self-sufficiency, or because they will gain nearly as much as they lose.

Most probably, the largest negative effect of trade liberalisation policies will affect those in the middle-income categories. The typical household in these villages does not benefit universally either from the greater demand for labour from local investments by enterprises or from greater for local labour, since migration is not very common ..... They are typically fairly well integrated into the rest of the economy and frequently highly commercialised. If agricultural prices fall, full-time farmers in these areas will be adversely affected. In fact, there is a higher propensity to be running a self-employed enterprise in these types of villages than in any other region ..... If their businesses are connected with agriculture or with any other sector that is affected by trade liberalisation policies, they will be hurt in a second way. In short, those in these middle-income villages that are located in the far suburbs and the not so-far-away rural areas will be the ones most likely to be affected by trade liberalisation policies – at least in the short run. However, since these villages are in the regions that are fairly well-off it may be that these household are fairly flexible and may minimise the costs.

In summary, to the extent that the *mode* household in each area is examined, it may be argued that most regions have reasons to be fairly optimistic. The poorest regions will be unaffected due to their remoteness. The next to the poorest and richest should have substantial benefits if

trade liberalisation policies increase the demand for China's rural industrial products or for rural labour in general. Those in the middle-income areas may be hurt. However, to the extent that they will respond, the first round negative effect may be reduced considerably. In short, there is reason to believe that most of the aggregate effects will not be too serious.

However, there are other household in rural China besides the 'typical' ones. In rich areas there are commercial farmers who have invested in and are producing agricultural goods that may suffer large price falls when trade liberalisation policies are fully implemented. In a number of areas that are well-integrated into the rest of China's economy there are farmers who are on land that is best suited for wheat and maize production, two crops that will most likely see a large increase in imports (see Chapter 1). Many of these households have few feasible alternative crops that they can produce. In some areas, rural factor owners and their workers will suffer if they happen to be in an industry that loses its long-standing protection. In the long run, most of these households may adjust; in the short run, however, some may experience severe consequences".

## Appendix II

### **Frequent Asked Questions and Answers about the WTO Agreements on Agriculture**

Source: [http://www.wto.org/wto/english/thewto\\_e/whatis\\_e/eol/e/wto02/wt02\\_70htm](http://www.wto.org/wto/english/thewto_e/whatis_e/eol/e/wto02/wt02_70htm)

- What does domestic support mean in terms of the Agreement on Agriculture?
- Are all domestic subsidies subject to reduction commitments under the Agreement on Agriculture?
- What is in the green box?
- What is the meaning of “general government services” in terms of green box measures?
- Are government expenditures related to public stocks for food security purposes and domestic food aid included in the green box?
- What is the meaning of “decoupled” support in terms of green box measures?
- What are “blue box” payments?
- What developmental measures are exempt? What is “de minimis” support?

\*\*\*\*\*

- What does domestic support mean in terms of the Agreement on Agriculture?  
*Domestic support covers all subsidies or transfers in favour of agricultural producers. Of this broad definition, only certain measures are normally subject to reduction commitments or to the rule-based de minimis commitments. These include any government-administered price which acts to maintain prices at levels above those prevailing on international markets; certain direct payments to producers, including deficiency payments; and certain input and marketing cost reduction measures. The AMS represents a method of converting all included forms of product specific and non-product-specific support into a total monetary value which is the basis for a Member's legal reduction commitments.*
- Are all domestic subsidies subject to reduction commitments under the Agreement on Agriculture?  
*No. The Agreement recognizes the right of Members to support farmers, for example to achieve objectives related to issues such as rural versus urban incomes, rural*

*development, structural adjustment, environmental concerns, food security, etc. Support measures which are exempt from reductions commitments are classified in a number of categories:*

- *“green box” measures which meet general and specific criteria so as to have no, or at most minimal, trade-distorting or production-related effects;*
- *“blue box” measures which cover certain direct payments under production-limiting programmes;*
- *de minimis levels of support, i.e. other support which does not exceed 5 per cent of the value of production of the product concerned (in the case of developing countries, the de minimis level is 10 per cent).*

- **What is in the green box?**

*The fundamental requirement for a measure to qualify for the green box is that it must have no, or at most minimal, trade-distorting or production-related effects. With this in mind, the Agreement on Agriculture sets out a number of “general” and “measure-specific” criteria which, when met, allow measures to be placed in the “green box” of measures exempt from domestic support reduction commitments. In general, the green box applies equally to developed and developing country Members, but more flexible criteria apply to developing country Members with respect to certain measures related to stockholding for food security purposes and domestic food aid.*

*The basic general criteria are that the measure must be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers and that it must not have the effect of providing price support to producers. The measure-specific criteria define the detailed conditions that measures, such as decoupled income support or certain other direct payments, must comply with if they are to be considered “green” for the purposes of the Agreement.*

- **What is the meaning of “general government services” in terms of green box measures?**

*The green box covers many public service programmes, including general services provided by governments. The green box thus provides for the continuation, and possible enhancement, of programmes such as research, pest and disease control programmes,*

*agricultural training services and extension and advisory services, inspection services, marketing and promotion services, and infrastructure services.*

- Are government expenditures related to public stocks for food security purposes and domestic food aid included in the green box?

*Yes, but there are specific criteria which have to be met. For example, food security stocks have to be part of a food security programme which is identified in national legislation and which sets out predetermined food security targets. Moreover, the operations of the programme have to be financially transparent, and the accumulation and disposal of the food security stocks cannot operate as a cover to provide market price support. In the case of developing countries, the measure-specific criteria for both food security stocks and domestic food aid programmes are more flexible.*

- What is the meaning of “decoupled” support in terms of green box measures?

*The green box also provides for a wide range of direct payments to producers provided these payments meet the generally applicable criteria as well as certain measure-specific criteria. For example, green box decoupled income support requires that the payments from the government to the producers do not influence the type or volume of the production. These payments must not be linked to any current prices applying to any production undertaken, or to the current factors of production employed by the farmer, and no production shall be required to receive such payments.*

*Additional criteria to be met as regards direct payments to producers depend on the type of the measure concerned. Such measures may include certain forms of direct income support which do not aim to encourage production, income insurance and safety-net programmes, natural disaster relief, various types of structural adjustment assistance programmes, and certain payments under environmental programmes and under regional assistance programmes.*

- What are “blue box” payments?

*Blue box payments are a special category of direct payments. Although they do not qualify as exempt under the green box (essentially because they are product-specific payments), such payments are nevertheless treated as exempt from reduction because*

*they are made under “production-limiting” programmes, such as production quotas implemented in the framework of supply management.*

- What developmental measures are exempt? What is “de minimis” support?

*In addition to measures covered by the “green box” and the “blue box”, two other categories of domestic support measures are exempt from reduction commitments under the Agreement on Agriculture. These are certain developmental measures in developing countries, and de minimis levels of support.*

*The measures that fit into the developmental category are measures of assistance, whether direct or indirect that are designed to encourage agricultural and rural development and that are an integral part of the development programmes of developing countries. These include investment subsidies which are generally available to agriculture in developing country Members, agricultural input subsidies generally available to low-income or resource-poor producers, and domestic support to producers to encourage diversification from growing illicit narcotic crops.*

*When all of the exempt measures have been accounted for, the residual non-exempt domestic support is quantified in monetary terms on a product-specific and, in case of sector-wide measures, a non-product-specific basis. When such subsidies are below de minimis levels, they too are deemed to be exempt from reduction commitments. The de minimis level is defined as a percentage of the value of production for the product concerned (or the total value of agricultural production for the non-product-specific measures). The percentage is 5 percent for developed country Members and 10 per cent for developing country Members.*

PREVIOUS WORKING PAPERS IN THE SERIES  
*SOCIAL ECONOMICS, POLICY AND DEVELOPMENT*

1. Poverty and Economically Deprived Women and Children: Theories, Emerging Policy Issues and Development”, Clem Tisdell, September 1999.
2. Sen’s Theory of Entitlement and the Deprivation of Females: An assessment with Indian Illustrations by Clem Tisdell, Kartik Roy and Ananda Ghose, September 1999.
3. Gender Inequality, Development and UNDP’s Social Valuation Indices: HDI, GDI and GEM with Particular Reference to India by Clem Tisdell, Kartik Roy and Anand Ghose, September 1999.
4. Asset-Poor Women in India and the Relevance of Amartya Sen’s Analysis by Clem Tisdell, February 2000.
5. Institutional Impediments, Entitlement Exchange and Women’s Empowerment in Rural India: The Case of Access to Education by K. C. Roy, Clem Tisdell and A. Ghose, February 2000.
6. The Socio-Economics of Gender Issues in Rural India: Results of Interviews in Three Villages and a Forest Meeting in Eastern India by Clem Tisdell and Kartik C. Roy, May 2000.
7. The Development of Kiribati: An Analysis of Trends, Issues and Policies by Clem Tisdell, May 2000.
8. The Development of Samoa: An Analysis of Trends, Issues and Policies by Clem Tisdell, May 2000.
9. The Development of the Solomon Islands: An Analysis of Trends, Issues and Policies by Clem Tisdell, May 2000.
10. The Development of Tuvalu: An Analysis of Trends, Issues and Policies by Clem Tisdell, May 2000.
11. The Development of Vanuatu: An Analysis of Trends, Issues and Policies by Clem Tisdell, May 2000.
12. Sustainable Development and Human Resource Capital by Clem Tisdell, May 2000.
13. Gender Inequality in India: Evidence from a Rural Survey in West Bengal by Clem Tisdell, July 2000.
14. Property Rights in Women’s Empowerment in Rural India: A Review by K. C. Roy and C. A. Tisdell, July 2000.
15. Push-and-Pull Migration and Satisficing versus Optimising Migratory Behaviour: A Review and Nepalese Evidence by Clem Tisdell and Gopal Regmi, October 2000.
16. Socioeconomic Determinants of the Intra-family Status of Wives in Rural India: Analysis and Empirical Evidence by Clem Tisdell, Kartik Roy and Gopal Regmi, December 2000.
17. Villagers and the Use and Conservation of Indian Forests: The Role of Joint Forest Management by Clem Tisdell, Kartik Roy and Ananda Ghose, May 2001.
18. Globalisation, Development and Poverty in the Pacific Islands: The Situation of the Least Developed Pacific Island Nations by Clem Tisdell, June 2001.
19. Globalisation, Institutions and Empowerment of Women in Africa: Kenya’s Experience by Tabitha Kiriti, Clem Tisdell and Kartik Roy, June 2001.
20. Female Participation in Decision-Making in Agricultural Households in Kenya: Empirical Findings by Tabitha Kiriti, Clem Tisdell and Kartik Roy, September 2001.
21. Migration of Husbands, Remittances and Agricultural Production: Impacts when Wives Head Households in Rural Kenya by Tabitha Kiriti and Clem Tisdell, November 2001.
22. Summaries of Survey Responses of Household Heads in Three Forest Villages in the Midnapore District of West Bengal, India: Use of Forest Resources by Villagers, Forest Sustainability and Management by Clem Tisdell, Kartik Roy and Ananda Ghose, November 2001.
23. A Report on Socioeconomic Attributes and Gender Inequality in Kondh-Dominated Villages: A Comparative Analysis of Tribals and Non-Tribals in the Phulbani District, Orissa, India, by Clem Tisdell, Kartik Roy and Ananda Ghose, March 2002.
24. Economic Theories of the Family and Discrimination in a Social Context: Entitlements of Kondh Tribal Females in India by Clem Tisdell, Kartik Roy and Ananda Ghose, March 2002.
25. Children and Economic Development: Family Size, Gender Preferences and Human Capital

- Formation – Theory and Indian Cases by Clem Tisdell, May 2002.
26. Gender, Martial Status, Farm Size and other Factors Influencing the Extent of Cash Cropping in Kenya: A Case Study by Tabitha Kiriti and Clem Tisdell, May 2002.
  27. Commercialisation of Agriculture in Kenya: Case Study of Urban Bias on Food Availability in Farm Households by Tabitha Kiriti and Clem Tisdell, June 2002.
  28. Prejudice against Female Children: Economics and Cultural Explanations, and India Evidence by Clem Tisdell and Gopal Regmi, September 2002.
  29. Economic Globalisation, Liberalisation and Bangladesh: Poverty, Labour Norms and the Environment by Clem Tisdell, November 2002.