



# Impact of India's Trade Reforms on the Informal Sector

SSR PROJECT R7901

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## MACRO ANALYSIS

### NCAER Team

Anushree Sinha  
K A Siddiqui  
Poonam Munjal  
Sonali Subudhi

### QEH Advisor

Christopher Adam

## FIELD RESEARCH

### NCAER Team

Ratna Sudarshan  
Navsharan Singh  
Rupinder Kaur  
P K Ghosh  
Mrinalini Sapra  
Pooja Sharma

### QEH Project-Director

Barbara Harriss-White

### CO-ORDINATOR

Anushree Sinha

## TECHNICAL SUPPORT

### NCAER Team

Sudesh Bala  
Praveen Sachdeva

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THE IMPACT OF INDIA'S TRADE REFORMS ON THE INFORMAL SECTOR  
(R 7901) : FINAL RESEARCH REPORT TO DFID

March 2004

**Disclaimer**

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**1. Background and Objectives**

The informal sector is outside the regulative reach of the state - outside for one or a combination of registration, taxation, power supplies and the regulation and rights of the labour force. With roughly nine out of ten of India's working population gaining livelihoods in the informal economy (at least 35% of whom live under the poverty line) the impact of liberalisation is clearly of the first importance for development, whether this impact is conceived as economic growth or as wellbeing.

This collaborative project between the National Council of Applied Economic Research, New Delhi, India and Queen Elizabeth House, Oxford, UK, investigated the differential impact of trade liberalisation on formal and informal sectors of the economy in a novel five-fold comparative way, disaggregating by:

- i) formal and informal sub-sectors (and their linkages with each other),
- ii) two different sectors, both of which are basic wage goods with export potential : rice (a subsistence crop with a national market and subject to export liberalisation during our project) and garments (a highly differentiated commodity sector with a history of expansion (16% of manufactured exports) regulated under the MFA),
- iii) two regions for each sub-sector, each noted for the commodities studied (Punjab and West Bengal for rice; Delhi and Tiruppur (Tamil Nadu) for garments),
- iv) policy elements of international as well as domestic trade liberalisation (such as removal of inter- state trade restrictions)

v) two approaches to analysis: a Computable General Equilibrium (CGE) model and primary field research.

The starting point of the research were the propositions

i) from the literature on CGE modelling: that ‘there are structural differences between formal and informal activities : differences in production technology, demand for, and right of labour, credit availability and relationships with the state’,

ii) from the literature on trade liberalisation : that it would have a differentiated impact on formal and informal sub-sectors,

iii) from the literatures on informality : that liberalisation would see an increase in informal activity (due to either the removal of restrictions causing pre-emptive development, or to the polarising impact of liberalisation under structural adjustment or to cost competition in global markets).

The DFID funded project ran from September 2001 to March 2004, most of the fieldwork having been carried out as planned - before the modelling - in 2002-3, while the SAM and the CGE model were refined in 2003-4.

## **2. Methods**

As explained above, one of the project’s objectives was explicitly methodological : to experiment with a novel combination of CGE modelling with insights from field research.

### **The Macro Project**

The macro level analysis was carried out first, by organising national level data on production and workers, (both distinguished by informality) and second, by trade policy analysis using a Computable General Equilibrium (CGE) model . The macro data were formulated into a consistent accounting framework (a social accounting matrix (SAM)). The structure of the SAM for the benchmark year 1999-2000, facilitated the understanding of the inter-linkages of the informal sector with other sectors of the economy. The SAM traced the interrelationships of the national economy. In creating the SAM, information on informality in the Indian economy was innovatively extracted from raw data collected by the Indian Central Statistical Organisation.

The SAM also formed the basic data set for the CGE model. The description of the SAM is provided in Sinha, Siddiqui and Munjal (2004).

A relatively standard trade-focussed comparative-static CGE model has been developed to analyse the principal distributional consequences of a liberalization package, based on what actually happened in India in the 1990s. It combines tariff reductions and the removal of quantitative restrictions (QRs) on trade. Distinguishing between these two elements is important since their removal is likely to have important distributional effects; in the former case the revenue reduction impacts the fiscus directly, in the latter the removal of QRs eliminates a potentially important source of rents accruing to powerful interest groups in the private sector.

The model maps changes in the distribution of factor income (i.e. wages and profits) into a small set of representative household types. Reflecting the case study evidence, the model allows for a plurality of technologies (and variations in factor intensities) to characterize production. This distinction also allows for tax and tariff structures to vary across sectors, reflecting the difference in relationship which the formal and informal sectors have with the state.

The model both accounts for the segmentation between formal and informal labour markets and allows for a measure of wage rigidity in the formal sector, itself reflecting factors such as the presence of labour unions, government minimum wage policy, etc. There is no such rigidity in the informal sector and wages in this market adjust freely to clear the market. Such a specification allows for a form of unemployment in the formal labour market. In labour market equilibrium, the unemployed formal sector workers inflate the informal labour market depressing informal wages. The full details of the model structure and a discussion of the simulation results are presented in Sinha and Adam (2004).

One still unresolved question concerns the appropriate structure of consumption behaviour. The field surveys were focussed on informality on the production side of the economy, while the data used to construct the SAM are silent on important aspects of household consumption decisions. The current model structure assumes households to consume a basket of goods which contains both formal and informal varieties of all

goods. Consumption choices in this set up are governed by a common set of substitution elasticities which does not do full justice to the richness of consumer choices. The study explains why a more detailed and nuanced SAM structure is required to incorporate a multi-stage consumption structure which would allow high or low substitutability of formal and informal varieties of goods. *A model having such substitution possibilities (recognising the similarities of formal and informal variants of goods) represents a natural next step in the development of the simulation model.*

The NCAER team consisted of Dr Anushree Sinha (co-director of the project), Mr. K.A. Siddiqui, Ms. Poonam Munjal and Ms. Sonali Subudhi. The model and related analysis was developed with extensive contribution and advice from Dr Christopher Adam of QEH. Details of the methods are given in Sinha and Adam (2004).

### **The Micro Project**

A questionnaire was designed, pre-tested and used in field interviews of 200 firms, divided equally between the two sectors, and two regions. It covered assets, technology, linkages with raw material, intermediate, derived and final markets, and labour relations. It was originally proposed that 10 registered, formal firms be selected (to give a 20:80 ratio between formal and informal firms). In the event, due to the extreme practical difficulties of locating informal firms (because of the lack of population registers) the sample was of 205 firms and the ratio was 53:47. The units were chosen through stratified network sampling based on the characteristics of informal clusters (products, linkages with formal firms, etc). The garment surveys were spread over 6 months. However the rice surveys were each conducted over six weeks including pilot of one week.

The NCAER team consisted of Ms Ratna Sundarshan, and Mr P.K. Ghosh, Drs Rupinder Kaur and Navasharan Singh and Ms Mrinalini Sapra. They were trained and advised by Prof Barbara Harriss-White of QEH, who also conducted some field research in West Bengal and co-directed the project.

### **The Interaction**

The original objective had been to use the evidence from the field research to make realistic assumptions to calibrate the CGE model, to compare its predictions with the

historical processes reported from field research and to take its results to consult with stakeholders in the field.

#### *Unplanned Outcomes*

1. The field project went to time, although, despite careful training and preparation, the pilot showed it was unrealistic to expect complete, comparable quantitative survey data from either formal or informal firms. Both proved to have much to hide. Sensitive evidence was subsequently obtained by privileged admission from key informants and followed up by triangulation with reliable stakeholders. The field team proceeded systematically, used their evidence in the form of profiles and illustrations and (interpolating very cautiously where necessary and possible) carried out some quantitative analysis. Since the policy elements of trade liberalisation are much more complex than implied in the literature, since they are sequenced idiosyncratically in each region, and since their implementation is also informalised, it was not possible to trace the impact of a given single policy on a sub-sector. However, even though quantitative data from the field work could not be used to calibrate the CGE model, the field experience was essential to its design.
2. The macro project suffered problems of success, resulting in a continual exodus to more lucrative employment of many of the researchers who had been trained. Also, one of the model's lead researchers left the NCAER. This hampered the timetable of the CGE modelling, resulted in a 6 month extension to the project's deadline, with additional funds from DFID. Since the final version of the model reported results in March 04, it was then not possible to return to the field to discuss them. However, the results were discussed with leading NGO activists working in the informal sector.

### **3. Findings**

#### **The Macro Project**

As noted above, the focus of the macro project was the analysis of trade-policy reforms (tariff reduction and the reduction of quantitative restrictions (QRs)) under different assumptions (i) about the government's fiscal response (specifically whether

the government acts to replace the lost revenue from tariffs from other tax sources<sup>1</sup>) and (ii) about the functioning of the labour market. A wide range of scenarios was examined in which the depth of trade reform, the balance between tariff reduction and the elimination of QRs, and the responsiveness of consumers to changes in domestic import prices were varied. The qualitative, though not quantitative, results are not sensitive to the third of these factors. The results reported therefore focus on a central case (where the price elasticity of substitution between domestic goods, both formal and informal, and imports is relatively low (at 0.5) implying a relatively sluggish response to demand to change in prices).<sup>2</sup>

The first major result is that in general trade policy reforms will increase the real output of the economy.<sup>3</sup> But the interest lies not so much in the aggregate but rather in the detail. The expansion of output is (marginally) higher when trade reform is rendered revenue neutral by offsetting tax increases elsewhere<sup>4</sup>, but noticeably higher when we assume downward rigidity in the formal sector average wage. This latter result mainly reflects the effect of downward pressure on casual wages -as a result of labour shedding- on the profitability of the casual-labour intensive sectors (resulting in growth in informal sub-sectors).

As import prices fall as a result of liberalization, domestic import-substituting activities are squeezed. Transmission of this initial effect through the economy depends on two factors, (i) what happens to the structure of wages and (ii) what happens to aggregate demand. An interesting outcome is when the negative demand effect from removal of the QRs is offset by the increased profitability resulting from depressed casual wages transmitted from formal sector unemployment. This is shown by the contrast in growth experienced by informal agriculture (which is large and mainly supplies the domestic market) and the informal garment sector, which is small

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<sup>1</sup> As the simulations show, were the government to take no offsetting action, the fiscal deficit would increase by around 25% over its baseline, equivalent to approximately 1% point of GDP. This is a sufficiently large increase that revenue neutrality has been a meaningful case to analyse.

<sup>2</sup> The results of the full set of scenarios are available on request.

<sup>3</sup> It is tempting to call this 'growth' but this is incorrect in the current comparative static model. Since capital, labour and total-factor productivity are fixed in aggregate, any increase in output arises purely from the gains from reallocation in the light of the change in relative prices from more to less distorted configurations. This is a property of this class of model.

<sup>4</sup> Revenue reduction is fully offset by increase in production taxes in only the formal sub-sectors, including service taxes on formal services.

and highly export-oriented. In the latter case lower domestic demand has no effect and the sub-sector benefits very strongly when the casual wage is depressed with the decanting of skilled labour out of the formal economy as trade reforms bite. Moreover, this sector benefits even more when government adopts a revenue neutral trade reform since it bears a very small share of the domestic indirect tax burden. For agriculture trade reforms in isolation are modestly output enhancing and together with QR reduction the positive effect is enhanced since the rental income flows to consumers thereby transferring resources from higher- to lower-income households whose propensity to consume food is relatively high. However, this is countered by unemployment and the demand effect is offset by the fall in the casual informal wages. Moreover, output growth reduces, or even contracts if domestic taxes (which, at least indirectly, fall quite heavily on this sector) are raised to ensure revenue neutrality.

Hence, the mechanism which delivers the strongest output gains for the outward oriented informal sectors, namely the wage rigidity in the formal sector, also puts strongest downward pressure on the casual wage rate. Under 'pure' trade reform, average casual real consumption wages rise modestly,<sup>5</sup> and this is slightly stronger with a reduction in QRs, for the reason noted above. The casual-regular real wage differential narrows *when there is wage flexibility in both segments of the labour market*. However, if formal sector labour market rigidities are in place, the 'cost' of wage adjustment in the informal sector is overwhelmingly borne by casual workers (the old and the new entrants to this market). At best (the case with tariff reduction only and no fiscal offset) this widens the wage differential but at worst, when QR reductions are considered in a revenue-neutral setting, the average real consumption wage in the casual labour market actually falls.

Pulling this together, what are the implications for household consumption, which is the natural measure for wellbeing in this model? The model suggests that the welfare effects of trade reform vary across household types and the different simulations. In the case of flexible wages in both the markets, a reduction in tariff and QRs results in

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<sup>5</sup> Previously the discussion was in terms of the *real product wage*, the cost to the firm of hiring labour at the margin. Here we focus on the *real consumption wage* which relates wages to the cost of the basket of goods consumed (i.e. the CPI).



welfare gains by all types of households. Regular wage earners experience the highest gains and the lowest benefit accrues to capital owner households as they lose rental income. When rigidity in formal wages is introduced, the casual wage earning households actually experience a decline in their real consumption. The other losers for the same reasons noted above are the capital owner households. The gains by regular wage earners and the loss by the casual wage-earning households are more pronounced in the case when revenue neutral measures are in place.

As with all CGE models, certain features of the simulation results reflect the ‘macroeconomic closure’ adopted, i.e., the assumptions imposed to ensure that the model respects the macroeconomic balances of the economy. In this case, the choice of closure combined with the comparative-static nature of the model means that the model does not reflect the true nature of the investment process in India. Specifically, there is no capital accumulation in the model and while the capital stock is fixed by sector, labour is mobile across sectors. The model follows the ‘neo-classical’ closure rule in which aggregate investment is determined by total national savings. Hence, in a case where government savings fall due to tariff reduction, overall investment would fall in this model causing a decline in the *demand* for capital goods, but this has no effect on the capital stock itself.

Finally, the model assumes a fixed nominal exchange rate and fixed world prices for importables and exportables. Hence the real exchange rate (i.e. the relative price of tradable to domestic goods) is what moves to satisfy the balance of payment. Since the model is a real barter-CGE model, the assumption that the nominal exchange is fixed is totally arbitrary and has no bearing on the results. We would obtain exactly the same results if we fixed domestic prices and assumed that the nominal exchange rate floated.

Certain informed policy conjectures could be made reflected by outcomes of the sensitivity analysis. First, since the ready-made garment sector thrives on export demand, when the Multi-Fibre Agreement is phased out in 2005, there could be enhanced competition for Indian exports. With less bonding with the domestic economy, the garment sector could suffer with employment losses for a very large

number of informal workers. To make this sector globally competitive, the reduction in tariff in intermediates such as synthetic fibres is a very critical policy decision.

Second, since there is negative impact of trade reforms on the casual wage earners, it is important to provide social security to such workers during this period of adjustment.

### **The Micro Project**

The research is very rich.

#### *i) formal and informal sub-sectors (and their linkages)*

The two fold division of an activity into formal and informal is highly misleading, yet the concept remains meaningful. Despite the stratification of both sectors, a range of overlapping scales of enterprise, types of technology and incomes co-exist. Formal and informal products are mostly indistinguishable (and therefore substitutable). Yet both sectors are characterised by increasingly varied and differentiated products.

Formal credit is fungible and onward-lent into the informal sector. In both sectors we find that official data greatly underestimate informal employment. It is possible that growth is less 'jobless' than currently calculated. But most labour in formal firms (85% in rice, at least 83% in garments) is informalised, increasingly casualised and organised through contractors. Subcontracting and home based work are greatly on the increase. Caste, religion and gender structure and regulate the recruitment and contractual conditions of the overwhelming mass of labour, as they do the social composition of enterprise ownership. Informal brokers are attached to state agencies, and officials may supplement their pay through informal self employment. Informal activity in formal firms reduces and transfers risk, increases the owner's control over production, biases the distributive share towards profit, and may conceal fraud.

*ii) two sectors, both basic wage goods, rice and garments :* The organisation of both industries is highly differentiated. The structure of both sectors has undergone involution in the sense of an increasing internal intricacy of types and activities of firms. Both sectors rely on casual labour. But there the similarities end. Formal garment firms are much larger in scale and assets than their counterparts in rice. Garments products are much more complicated to produce than rice so that, although the tendency to involution (and petty flexible specialisation) is visible in rice, it is far greater in garments. Further, while small craft firms are threatened by computer aided

designs (CAD) and vertical integration in garments, in rice small firms proliferate. Lastly, while female labour is being displaced by technical changes in rice mills, labour in garments is being feminised.

*iii) regions:* In all sectors and regions women are concentrated at the low and insecure end of the distribution of contracts and pay. Regional idiosyncrasies are due to a range of factors. *Rice* in Punjab is not consumed locally, which affects the structure of the agro-industry, dominated by large mills. In West Bengal, the structure of the sector is affected by rice's being a subsistence crop (affecting demand for custom milling), by the agrarian structure (affecting the structure of control over rural savings, investments and intersectoral transfers), and by the decades-old structure of regulation (until recently protecting large mills). Once a model of small scale industry with a formal work force, *garments* in Tiruppur have developed in a predominantly cluster form with intricate networking between flexibly specialised firms. By contrast the same garments in Delhi are produced in increasingly vertically integrated factories, to improve delivery time and quality (especially for those garments made from artificial fibres imports of which were liberalised in 1995, which are not easily stitched with older sewing machines). There is an unknown invisible force of women home-workers. Caste plays a less important structuring role than locality in organising migrant casual labour. Wages for casual work differed by task, sector, region and gender.

*iv) the impact of policy reform on sectors, their employment and their linkages:* The structure of regulation has been slow to be dismantled in both cases – not only in official intention but also in practice. Garments export is not a phenomenon of liberalisation, though its expansion is recent, its gateways are heavily informally protected. The informal garment sub-sector is currently expanding more than its formal counterpart as tariffs on imported intermediate goods are reduced. This is currently felt in increased employment. Even casual wage earners have increased their real wages. Informal exports are growing faster than formal exports. The industry expects to be threatened in 2005 with the lifting of the Multi Fibre Agreement under which competition has been constrained.

The longstanding contract farming of basmati rice for export still needs – and receives - heavy subsidy in Punjab. There is no rice export from mills in W. Bengal, where the expansion of rice processing relates to its 20% increase in production in the 1990s and not to deregulation. Similarly, the unrestricted entry of FDI in 2000 had produced no

influx by the time of our fieldwork. The deregulation of intermediate goods (machinery) has no impact on rice, which still relies on local production. While the lifting of domestic movement restrictions produced gluts and an unprecedented slump in producer prices, it had less impact on processing. Where 'liberalisation' has involved easier entry and licensing (as happened paradoxically in W. Bengal consequent to the de-reservation and deregulation of rice in the late 90s), informal businesses are able to gain access to credit and are no longer harassed, their scales of operation, savings and investments increase and some start to hire in labour and to challenge the share of the formal sector. Access to credit is crucial for the informal economy to take advantage of demand for the goods and services they provide.

While in the rice processing sector, employment still depends on the vagaries of production, in the garment sector it depends on unstable international demand. Existing voluntary codes of conduct were unknown among informal sector firms, and known about, and even signed up for, but not implemented by formal firm owners. Our research confirms the strong result produced by most other field research on informal workers: that their social security rights need enforcement with access made independent of work rights. On the other hand inside formal firms, social security rights need integrating with work rights. Work rights need much stronger enforcement. The informal sector workers bill and the social security bill need fast track to implementation.

### **The Interaction**

Comparing the two approaches to analysis: a CGE model and primary field research, the CGE model's results are at a national level of aggregation, while each sector and each region was shown to be idiosyncratic. Yet the comparison of results from the case studies and the model shows empirical similarities. First, with respect to rice, the Punjab study reported a 15% growth per annum in employment in the post reform period. The comparative static model study shows that post trade reforms, employment in rice processing increases by 9%. The case study reports a decline in export share of rice and this is also reflected in the model results. The case study shows that both informal and formal sub-sectors have grown in the post reform period, as also reflected in the model results.

Second, with respect to garment sector, the case study has reported a double-digit increase in exports, post reform. The model results show that exports in the informal and formal sub-sectors grow by 12% and 13% respectively in the post reform simulation after allowing for wage rigidity. Both the case studies and the model results show informalisation in the post reform period.

The case studies show that formal wages are about 3.5 times higher than informal wages. The NSSO analysis estimates formal wages to be 3.3 times more than informal wages.

#### **4. Dissemination**

The research activities were supported by an extensive programme of direct and indirect dissemination activities. These are described in detail in Appendix I.

#### **Key Words**

economic reform, enterprise, globalisation, trade, informal sector, India

## Appendix I

### The Macro Project

1. During the project period Dr. A. Sinha submitted a paper titled “Reforms and Informalisation: What lies behind Jobless Growth in India” for the EGDI-WIDER Conference on Unlocking Human Potential, Linking the Informal and Formal Sectors, September 2004. See Appendix II.1.
2. She presented a paper titled “Impact of Policy Changes on the Informal Economy: Informalisation - A Sectoral Perspective” with Poonam Munjal at the 7<sup>th</sup> Meeting of Delhi Group organised by the CSO, India and ILO during February, 2004 at New Delhi. See Appendix II.2.
3. Dr. Sinha became a member of the Working Group of Employment Monitoring, Ministry of Labour, Government of India in 2003.
4. She was a senior consultant to UNECA: “Gender and Poverty Reduction Strategy Programme (PRSP)” in 2002 for 45 days.
5. Sinha A. and C. Adam (2004): ‘Trade Reforms and Informal Economy in India: A CGE Analysis’. See Appendix III.1.
6. Sinha, A., KA. Siddiqui and P. Munjal (2004): ‘The Indian Informal Economy within A SAM Framework’. See Appendix III.2.

### The Micro Project

1. During the fieldwork, Ghosh and Harriss-White discovered an unreported crisis of profitability in rice production. They quickly made this public in vol 19 no 19, 2002, of *Frontline* (which still remains the article of first choice on Google for ‘W. Bengal Agricultural Crisis’) and were able to discuss the crisis with a range of stakeholders: a Rajya Sabha MP for West Bengal, the President of the Kisan Sabha, the Chair of the FCI Employees Union, Kolkata and the President of the Birbhum District Rice Millers Association.
2. When a target group for research is unorganised labour, it is by definition hard to disseminate results. During the field project Harriss-White used insights from it in three brainstorming and preparatory meetings in both Geneva and New Delhi for the ILO’s 2002 and 2003 Council of Nations which addressed the themes of Decent Work and the Informal Sector.

3. Harriss –White also used the results of the field project in the following publicly presented papers:

- i. Keynote Address at the Opening of the Centre for Development Studies at the Open University, UK, December 2001. See Appendix II.3.
- ii. Asian Development Research Institute Annual Public Lecture, Patna, September 2002  
Radha Kamal Mukherjee Memorial Lecture, Indian Society of Labour Economics Conference, Kolkata, December 2003
- iii. A four part series of lectures on India's Informal Economy, Ecole des Hautes Etudes en Sciences Sociales, Paris, 2004

R. Kaur

2002: Discussed the Punjab rice case study and functions of Food Bureaucracy with Lok Sabha MP from Punjab, who is also a member of the Parliamentary Committee to investigate the working of Food Corporation of India and its prospects in future.

2004: Made presentation of a paper on 'Rice Processing Industry in Punjab' in a seminar being organised by Punjabi university Patiala (Punjab).

R. Sudarshan

2003: Made a presentation at session on 'Economic reforms in India and the impact on the informal sector', at Advocacy Meeting on Globalisation and the Informal Sector, CUTS and Oxfam GB, New Delhi. 23 September 2003

### **The Interaction**

It is our experience that dissemination is carried out effectively by discussion as well as by the written word.

The main dissemination activity resulted from the Inception Workshop held at NCAER in January 2002 where all the team presented papers and the Dissemination Workshop held at the India International Centre, New Delhi, January 2004, and resulted in press and TV coverage as well as papers provided in the first reference under *Publications* below and in Appendix III.3-Appendix III.7).

The workshop on the interaction between micro and macro

a) attracted a large audience drawn from the IAS, politics, the National Accounts, the Central Statistical Organisation, the Planning Commission, the media, NGOs (including three significant NGOs working with unorganised labour (SEWA, ISST

and ActionAidIndia)), the UN agencies, DFID, IDRC and other bilateral agencies and technical specialists from academia – see workshop agenda and the list of participants in Appendix IV.1 –Appendix IV.2.

b) drew the attention of UNCTAD which co-sponsored the project's dissemination workshop, contributed two papers to it and drew influential UN and Indian Ministry of Commerce IAS experts into the network of people exposed to it.

c) attracted the attention of several authoritative media commentators – see

URL (see also Appendix V.1-V.5):

1. [The wages of informality](#)

<http://www.businessstandard.com/incs/search.asp>

(Search for Date:9 Jan 2004)

2. [Monet To Mondrian: Modelling Informality](#)

[http://www.financialexpress.com/fe\\_full\\_story.php?content\\_id=50310](http://www.financialexpress.com/fe_full_story.php?content_id=50310)

3. [In Defence Of Mondrian: Modelling Informality](#)

[http://www.financialexpress.com/fe\\_full\\_story.php?content\\_id=50794](http://www.financialexpress.com/fe_full_story.php?content_id=50794)

4. Experts Exchange Views On Trade Reforms & Poverty NCAER-UNCTAD Workshop On Impact Of Trade Reforms On The Indian Informal Economy And Poverty
5. Trade Expansion Reduces Poverty Findings Of Draft Report On "Trade Liberalisation And Poverty" Prepared by UNCTAD Team in India

The two above papers (numbered 4 and 5) are available at the URL:

[December 2003 Press Release](#)

## **Publications**

The workshop papers by Adam and Harriss-White, Sinha, Ghosh and Sudarshan, Kaur, Singh and Sapra, are available on the internet at:

1. <http://www.ncaer.org/Upload/others/110/unctad.html>

Also see appendix III.3-III.7.

2. Peer reviewed at the workshop, they will be published in book form:(eds) B. Harriss-White and A. Sinha *Trade Liberalisation and India's Informal Economy: Macro meets Micro* to be submitted to Oxford University Press (India)



Other publications drawing on our project and written or published during its lifetime

Ghosh, P.K.

3. 2002 : 'A Crisis in the Rice Economy' Frontline vol 19, no 19 Sep 14th (with Harriss-White) .See Appendix V.6 and see:  
<http://www.frontlineonnet.com/fl1919/19190440.htm> - 4 pages
4. 2003: 'Trade Liberalisation and Rice Processing Industry in West Bengal' (with R. Sudarshan) submitted to *Economic and Political Weekly*, India.  
Harriss-White, B.
5. 2004: 'Inequality at Work in the Informal Economy' *International Labour Review*. See Appendix VI.1.
6. 2004: Four Lectures at the Ecole des Hautes Etudes en Sciences Sociales, Paris:  
*India's Socially Regulated Economy*  
Socially Regulated Economy  
The State outside its Reach  
Informal Social Security  
Poverty and Destitution in India  
of which 3 are being revised for submission for publication as a book to Three Essays Press, New Delhi.
7. Forthcoming : book: Rural Commercial Capitalism and the Left Front: Food Systems, Markets and the State in west Bengal to be submitted , Anthem, London and Permanent Black, New Delhi.  
Sinha, A.
8. 2004: 'The Indian Informal Sector: Trade Policy Analysis using CGE and Field Research' to be submitted to *MARGIN*, Quarterly Journal of NCAER, New Delhi.
9. 2004: 'Macro-analysis of the Informal Sector: A CGE Approach' in *Trade Liberalization and Poverty: A CGE Analysis of the 1990s Experience* (eds John Cockburn, Bernard Decaluwe and Veronique Robichaud), IDRC (forthcoming).

10. 2004: 'Informalisation and Jobless Growth' in *MacroTrack*, February, Vol. 6, No.2, NCAER, New Delhi. See Appendix VI.2.
11. 2003: 'Informal Economy: Gender, Poverty and Households' (with N. Sangeeta) in *Tracking Gender Equity under Economic Reforms: Continuity and Change in South Asia* (eds. S. Mukhopadhaya and R.M.Sudarshan), Kali for Women and IDRC. See Appendix VI.3.
12. 2003: 'Informal economy: Gender, Poverty and Households' (with N. Sangeeta and K.A. Siddiqui), in *Informal Economy Centrestage* (eds R. Jhabvala, R.M.Sudarshan and J Unni), Sage Publication. See Appendix VI.4.

## HIGHLIGHTS

### THE IMPACT OF INDIA'S TRADE REFORMS ON THE INFORMAL SECTOR (R7901)

#### **Background and Objectives**

The informal sector is outside the regulative reach of the state - outside for one or a combination of registration, taxation, power supplies and the regulation and rights of the labour force. With roughly nine out of ten of India's working population gaining livelihoods in the informal economy (at least 35% of whom live under the poverty line) the impact of liberalisation is clearly of the first importance for development, whether this impact is conceived as economic growth or as wellbeing

From September 2001 to March 2004 a team from the National Council of Applied Economic Research, New Delhi and Queen Elizabeth House, Oxford collaborated on a novel project under which two very different approaches to research have been used.

Firstly, extensive field research was carried out into the features distinguishing formal from informal firms. This work fed into the design of the second piece of research. A new Social Accounts Matrix and Computable General Equilibrium (CGE) model were developed to distinguish the formal and informal economy and to simulate the effects of trade liberalisation in the 1990s. The model permits the simulation of tariff reductions and the lowering of quantitative restrictions under different assumptions about i) the fiscal response to lost revenue and ii) the functioning of labour markets. The results have subsequently been compared with the historical experience obtained through the field surveys.

Over and above distinguishing the formal and informal sectors and working at different scales, the project had other comparative dimensions. i) two different sectors for case study both in the field and in the CGE model - both basic wage goods with export potential : rice and garments; ii) two regions for each sector each noted for the products in question; iii) trade liberalisation in the domestic economy as well as internationally.

It was expected that there would be structural differences between the formal and informal sectors, that liberalisation would have a differential impact; and that it would enhance the share of the informal sector.

From the comparative-static simulations of the CGE model, in which macro-economic closure must be assumed, highlights *include*:

- Trade liberalisation increases real output, especially in the informal sector.
- The effect is most marked first, when accompanied by revenue increases (to compensate for those lost from the formal sector) *outside* the sectors liberalised and second, when the model allows for labour shedding from the formal sector.
- When this happens, wage rates on the casual labour market decline.

- Under the rule of downwardly rigid formal sector wages, households getting their income from the informal sector *experience a decline in consumption*.
- Households owning capital also experience a decline because they lose rental income from the formal sector.
- Sensitivity analyses strongly suggest that the phasing out of the Multi Fibre Agreement on textiles in 2005 will threaten informal sector employment. Tariff reductions in synthetic fibres will be essential to the competitive position of the garments industry.
- The negative impact of trade reforms on casual wages reinforces the need for social security for this sector.

*Highlights* of the field research include:

- Official data underestimates the size of employment in the informal economy.
- The two-fold division between formal and informal is misleading because i) formal enterprises have large informal labour forces, ii) a range of technologies co-exist in both sectors and iii) formal credit is highly fungible. But the concept is useful in drawing attention to two types of regulation : state and non-state.
- Non-state-regulated production is greatly on the increase. Caste, religion, 'place' and gender structure the recruitment of labour and its terms and conditions of work.
- There is considerable structural diversity in the formal and informal sectors by product and by region; e.g. female labour being displaced in rice processing while the garment sector is being feminised; e.g. clustered development in Tiruppur versus informalised development through vertically integrated factories in Delhi.
- Deregulation has proceeded more slowly in practice than in procedure.
- Exports and FDI are confined to certain product lines and regions within India.
- Access to credit is essential for informal firms to take advantage of liberalisation.
- Workforces need social protection against deterioration in the terms and conditions of work.

#### *Dissemination*

The project has generated widespread interest ranging from national accounts experts to the economic press. It has informed work on the informal sector in the ILO and in the major NGOs working with informal labour. A dissemination workshop in New Delhi in January 2004 was attended by experts from the Ministry of Commerce, the National Accounts, politics, the IAS, the print media and TV, NGOs and academics, DFID and UNCTAD.

The detailed results can be found in URL:

<http://www.ncaer.org/Upload/others/110/unctad.html>

A Book entitled *Trade Liberalisation and India's Informal Sector: Macro meets Micro* is being edited for publication.

**Disclaimer**

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**Contacts:**

Barbara Harriss-White  
Queen Elizabeth House, 21, St Giles,  
Oxford , OX1 3LA, UK  
[barbara.harriss@qeh.ox.ac.uk](mailto:barbara.harriss@qeh.ox.ac.uk)

Anushree Sinha  
NCAER, 11, Indraprastha Estate,  
New Delhi, 110 002, India  
[asinha@ncaer.org](mailto:asinha@ncaer.org)