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INDIA'S INFORMAL TRADE WITH SRI LANKA

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Foreword

The present study is part of a research project at ICRIER on India's Informal Trade with Sri Lanka and Nepal, which is being carried out in collaboration with the International Center for Ethnic Studies, Colombo and the Nepal Council for Development Research under the aegis of SANEI. This paper prepares quantitative estimates of the informal trade between India and Sri Lanka and spells out the institutional mechanism that governs such trade. The study is based on an extensive survey carried out in the Indian cities of Chennai, Trichy, Thiruvananthapuram, Tuticorin, Mumbai and Rameshwaram.

The study suggests that informal trade between India and Sri Lanka is largely a one way trade from India to Sri Lanka and is almost a third of the total value of trade through formal channels. Informal traders have developed efficient mechanisms for information flows, risk sharing and risk mitigation. The survey data reveals that the transaction costs of trading in the informal channels are significantly lower than in the formal channel. Ethnic trading networks between trading partners continue to facilitate informal trade by reducing transaction costs through minimization of risk costs, market information and search costs. An important policy implication of the study is that improving the transacting environment of formal traders would lead to lower informal trade but such trade would be difficult to eliminate.

I hope that this study will contribute to a larger understanding of the issues involved in informal trade in the South Asian region.

(Isher Judge Ahluwalia)
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April, 2002

India's Informal Trade with Sri Lanka

Nisha Taneja

1 Introduction¹

1.1 Background

Two earlier studies at ICRIER on informal trade have focussed on the empirical documentation of the magnitude and composition of informal trade flows in the region (Taneja 1999) and on an in-depth analysis of the institutional aspects of India's informal trade with Bangladesh and Nepal (Pohit and Taneja 2000). It is pointed out in Taneja (1999) that Chaudhari (1995) provides comprehensive estimates of the magnitude and composition of India's informal trade between India and Bangladesh. The second ICRIER study has examined India's informal trade with Bangladesh and Nepal focussing on qualitative but equally important institutional aspects underlying informal trade in contrast to formal trade: the nature of markets in informal trade, the types of mechanisms supporting information flows as well as the governance of contractual relations in these markets. A third study is currently being undertaken at ICRIER under the aegis of SANEI. It aims at preparing estimates of informal trade in the region where such estimates are lacking or inadequate and examining the institutional aspects of informal trading for countries where such an analysis has not been undertaken. These gaps are with regard to (i) estimation of India's informal trade with Sri Lanka and Nepal, and (ii) analysing institutional mechanisms supporting informal trade between India and Sri Lanka. In this manner the study hopes to achieve a reasonable understanding of the functioning of informal trading markets in the South Asian region.

The present paper highlights partial findings of the ongoing study at ICRIER. It attempts at estimating the magnitude of India's informal trade with Sri Lanka in terms of volume, value and structure. The paper also makes an attempt to understand the

¹ I am extremely grateful to Isher Judge Ahluwalia, K.L. Krishna, T. N. Srinivasan and Mohsin Khan for useful comments. I am also grateful to Sanjib Pohit, Muttukrishna Sarvananthan and Binod Karmacharya for useful comments at various stages of the project. Sumana Mazumdar has provided able research assistance throughout the study.

institutional aspects underlying informal trade between India and Sri Lanka. There is no land border between India and Sri Lanka and informal trade takes place either by air or by sea. While informal trade through the air channel is carried out through passenger traffic, by sea it is carried out by country boats.² The paper is based on the results of a survey carried out in the Indian cities of Chennai, Tiruchirapalli, Thiruvananthapuram, Tuticorin, Rameshwaram and Mumbai.

1.2 Framework for Analysis

What is the rationale for estimating the magnitude of informal trade through primary survey? Perhaps the prime question is why the study does not use secondary data for estimating the value of informal trade. As one of the prime objectives of the study is to prepare estimates of the value of unrecorded trade flows, analysis based on secondary data may not be very meaningful. Some studies have tried to estimate the value of illegal trade activities through the method of Partner-Country Data Comparison.³ In practice, this form of informal trade is carried out by under/over invoicing of exports/imports. Basically, the method is to compare the export/import data of the trading partners concerned. The important point is that the method uses recorded trade statistics. A country's export of a particular good should equal the import of the same good by its trading partner and vice versa. If not, then it may be inferred that false invoicing is taking place. The extent of informal trade is hence measured by the degree of fake invoicing. However there are several caveats to this method. For instance there could be errors in measuring freight and insurance costs because of which trade estimates could be inaccurate. Partner-Country Data Comparisons may not be accurate because one country's export may be accounted in one fiscal year and its trading partner's import of the same good may be accounted in another fiscal year. Also such comparisons may also be less effectual when faking of invoices take place at both ends of the international trade. This is more likely the case when both the trading partners are developing countries. In developing countries of South Asia, where trade recording systems are poor partner country data comparisons may not reveal the real extent of fake invoicing.

² Goods carried by air passengers are not recorded in official trade statistics.

³ For an extremely lucid account see Sarvanathan (2001)

What emerges from the above discussion is that international trade data present considerable difficulties for partner-country data comparison. However, if trade is not recorded at both ends which is a prominent feature in the South Asian countries, then partner-country data comparison is not a valid method. As for the present study we have defined informal trade as unrecorded trade flows, that are not captured by official national statistics, we need to use primary data generated through a survey for quantification of such flows.

In order to understand the functioning of informal trading markets the analysis has been carried out using the framework developed in Pohit and Taneja (2000). In this paper a more formal presentation of the framework is attempted. To begin with, it is useful to draw on the notion of institutions. While there is still a lack of agreement on the precise definition of institutions there is growing consensus on institutions as a set of collectively defined rules, norms and constraints that govern the behavior of individuals or groups. These rules and constraints can be formal or informal (Nabli and Nugent 1989a ; 1989b).

The current analysis is carried out using insights from the New Institutional Economics (NIE). The NIE differs from both neo-classical economics and from the 'old institutional approach'. While neo-classical economics focuses on perfect markets, it is devoid of institutions. The 'old institutional approach' on the other hand, recognizes the importance of institutions but does not provide a theoretical foundation (Langlois 1986).

Four distinguishing features of New Institutional Economics vis-a-vis conventional economics are that; (a) there is more to the economy than the market, (b) the economy is dynamic, evolutionary and holistic and hence it has to be analyzed accordingly, (c) whilst acknowledging the importance of studying individual behavior (methodological individualism) it is more important to study the intricacies and processes of group behaviour (methodological collectivism), and (d) studies of empirical phenomena should not exclusively depend on artificial or contrived a priori deductive exercises but should be

based on appropriate data. (Samuels, Vol. I, 1988: 3). All these features particularly the last one, have a bearing on our study on informal trade in the SAARC region.

Thus a salient feature of the NIE is that acquiring market information and concluding market transactions have costs and this feature is absent in the theoretical framework of neo-classical economics. Institutions are intermediaries through which information and transaction costs are reduced. The NIE incorporates transaction costs in exchange relationships and takes into account the impediments to economic performance caused by institutions, which is an improvement over neo-classical economics (Harriss, Hunter and Lewis, 1995: 3). Accordingly, NIE provides a relatively predictable framework on the role of institutions in facilitating exchange by reducing transaction costs and overcoming imperfect information as compared to neo-classical economics.(Assaad 1993; Bardhan 1989).

Landa (1994) goes beyond the NIE paradigm and brings to focus the role of ethnic trading networks in developing societies as an alternative to contract law in developed societies. Thereby she integrates sociological and anthropological concepts with NIE. Thus, ethnic trading networks function as an institution that facilitates economizing on transaction costs of traders. Landa draws her arguments from the experience of Chinese traders in Southeast Asia. Likewise, MacGaffey and Bazenguissa-Ganga (2000) highlight the ethnic, kinship, religious, and friendship networks of Congolese traders that transcend international boundaries. Sarvananthan (2001) also highlights the role of ethnic affinities of Tamils and Muslims of Sri Lanka for understanding the nature, causes, and effects of Indo-Lanka informal trade.

In the present context it is argued that while both institutional arrangements i.e. the formal and informal, facilitate trade in goods across countries, they are carried out at a cost viz., transactions cost. A rational behavior would imply that a more efficient institution (in terms of lower costs) should be preferred over less efficient one (Coase 1960).

As transaction costs arise from the transacting environment of informal and formal trade, it is important to understand transacting environments in which exchange takes place. In fact examining the transacting environments would enable discerning factors influencing informal trade. What demarcates formal traders from informal traders? Under formal trading arrangements, the recourse to law defines contracts between two contracting parties. This ensures that goods move across borders and payments are guaranteed. At the same time contracting parties in informal trade cannot resort to law for the violation of terms of the contract. Consequently, it is reasonable to assume that individuals trading through informal channel have developed parallel institutional mechanisms for contract enforcement and dispute settlement. It therefore becomes imperative to focus on issues of enforcement mechanisms including aspects of risk and information in informal trading. At the same time, it is important to understand the institutional structure that supports formal trade where exchange is affected by factors, such as, administrative processes, government rules and regulations, infrastructure bottlenecks etc.

1.3 Methodology

Two aspects of informal trade are investigated in the study- (i) estimation of informal trade and (ii) assessment of the characteristics of informal trading. Both aspects are examined through a survey. While the former involves two rounds of survey on the same set of respondents, in the case of the latter only one survey was carried out. An important aspect of the study was to identify a survey team that would carry out the survey. The Economic Information Technology (EIT) of Calcutta was selected to canvass the survey instrument as it has a core team that has carried out several surveys on informal trade.⁴ As the survey instruments were prepared by the author, a training program for the survey team was conducted by the author in Chennai to ensure a complete understanding of the questionnaires.⁵ The author was closely involved with the survey team in the field

⁴ The surveys in the two studies Chaudhary(1995) and Pohit and Taneja (2000) were canvassed by EIT. The team has carried out surveys for estimating informal trade between India and Bangladesh (Chaudhary (1995) and on qualitative aspects of Indo-Nepal and Indo-Bangladesh informal and formal trade (Pohit and Taneja (2000).

⁵ The draft questionnaires prepared at ICRIER by the author were discussed with M Savanathan, B.K. Karmacharya and S. Pohit at a workshop and refined thereafter.

throughout the survey period. The details of the methodology are spelt out in the following section.

1.3.1 Quantitative Aspect

The magnitude and pattern of India's informal trade with Sri Lanka have been estimated through a primary survey using the *Delphi* technique which is essentially a set of procedures for eliciting and refining the opinions of a group over successive rounds of interviews with it. The responses of the first round of interviews with a group of respondents are synthesised and the collective information of the group is presented to each respondent of the group in a second round of interviews to enable them to reconsider their responses. The responses obtained in successive rounds are thus based on feedback provided to the group of previous rounds. The number of rounds or iterations is continued till a consensus emerges. The basic characteristics of this technique are as follows:

- Structured questionnaire based interrogation of experts (knowledgeable people) on the issues being probed.
- Providing summarized responses of the first round to the respondents of the group to enable them to review their response in the second round.
- Repeat iterations till broadly converging responses are received or reasons for lack of convergence are documented.
- Anonymity of responses.

For the purpose of the study, some modifications of Delphi were carried out. First, while the initial effort was to attempt successive rounds, the number of rounds was restricted to two since the respondents were irritated at being visited repeatedly. Moreover, for the surveying team to probe further meant arousing suspicion in the centers where the surveys were being carried out. It was thus decided that in the event of no convergence reasons for divergence would be documented. Second, instead of one group of respondents, three broad groups/categories were interviewed keeping in mind the fact that Indo-Sri Lanka informal trade is entirely airborne and sea-borne (Sri Lanka being an island nation). For estimating air-borne informal trade Category (I) comprises of carriers, Category (II) comprises of informal traders, Category (III) comprises of 'knowledgeable persons' who were identified by the survey teams. For estimates of sea-borne trade, given

the nature of trade, and the associated risk factors, estimates were obtained by identifying respondents in the 'knowledgeable persons' category. To prepare estimates on air-borne informal trade from the 'knowledgeable persons' category information on the proportion of the air passenger traffic between India and Sri Lanka primarily for the purpose of informal trade and on the value of contraband trade by each informal trader/carrier was elicited from airline and customs staff, immigration officials, other knowledgeable persons from chambers of commerce, formal traders, local people, media and any other persons who could be identified by the survey team. The summarised responses of the first round in each category/group were provided to the respondents in the second round where respondents were given the opportunity to revise their estimate.

A weighted average of estimates of all groups was then used to arrive at a single estimate for each country.⁶

1.3.2 Assessment of the Characteristics of Informal Trading

A Qualitative assessment of Indo-Sri Lanka informal trade was undertaken using modified versions of questionnaires used for formal and informal traders in Pohit and Taneja(2000). Two separate questionnaires were used for formal and informal traders.⁷

The qualitative survey questionnaires were based on the discipline of New Institutional Economics so as to detect and comprehend the economic institutional bases of informal trade between India and Sri Lanka, and compare the different institutional mechanisms that govern formal and informal trade. A number of variables were selected on the basis of which it was possible to differentiate between formal and informal traders. A univariate test namely the signed rank test is chosen to evaluate the significance in the differences between the two types of traders. Further, the variables identified by the univariate test as being important in differentiating the two groups of traders are then included in a multivariate test to select variables that account most for the differences in

⁶ Shares of different types of respondents in the sample were used as weights.

⁷ Sarvanathan (2001) revealed that bulk of the informal traders/carriers in Indo-Lanka informal trade are Sri Lankan nationals. However, for statistical purposes roughly equal number of interviews was conducted in both territories.

the two groups of traders. The statistical tests carried out were the same as in Pohit and Taneja (2000).

1.4 Design of the Survey(s)

The survey was carried out during May 2001 and October 2001 to cover the two aspects namely (i) estimating informal trade and (ii) characteristics of informal trade.

1.4.1 Quantitative Estimates

For the quantitative estimation of Indo-Sri Lanka informal trade Sarvananthan (2001) was used as a starting point for identifying centers in the Indian territory. Further discussions held in Chennai, Thiruvananthapuram, Tiruchirapalli, Mumbai and Delhi led us to select only three of these centers namely Chennai, Thiruvanthapuram and Tiruchirapalli. The number of respondents drawn from each center was proportional to the relative importance of that center in informal trading activity. A total of 220 respondents were selected in the three cities. A questionnaire for preparing estimates of informal trade was used to elicit information on value and composition of air-borne and sea-borne informal trade. Also, information was elicited from air-carriers and informal traders on the impact of liberalisation carried out in the two countries in the early nineties on air-borne informal trade.

1.4.2 Characteristics of Informal Trade

For the qualitative analysis, as the objective of the study is to analyse the characteristics of informal trade juxtaposed against formal trade, an equal number of formal and informal traders were covered. The sample of informal traders were selected from the same cities that were identified as being important for the quantitative analysis. Lists of informal traders were prepared through extensive discussions with knowledgeable persons in the important centers/cities. Formal traders on the other hand were selected randomly from lists of registered traders in Chennai, Tuticorin and Mumbai. A total of 110 respondents, i.e., 55 each of formal and informal traders were selected to carry out the qualitative survey in India. The questionnaires for formal and informal traders elicited information on several variables. Some variables pertained to the informal traders only,

some to the formal traders only and some other variables referred to both formal and informal traders. Data was collected on trading activity, commodities traded, mode of entry, age of the firm, contractual arrangements, sources of information, risk attributes, sources of finance, mode of financing, ethnicity, transaction cost, education levels, time taken for trade deals, turnover, number of transactions, trading in same commodities, profits, fluctuation in margins, border price differential, among other things.

It has to be kept in mind that while formal traders were selected randomly from lists of registered traders, the selection of informal traders was done on the basis of information obtained from knowledgeable persons. Such a selection procedure may lead to biased sample. Thus, given the nature of the sample of informal traders, the survey estimates may only be indicative. Also, it has to be borne in mind that the sample size is relatively small and the results to that extent are only indicative but not conclusive.

1.5 Limitations of the Study

Researching illegal activities and those who participate in it, places a special responsibility on the researcher. It is essential on the one hand, to gain the confidence of the participants so as to elicit accurate responses, and on the other to protect the identity and confidentiality of the response. A great deal of reliance has to be placed on the professionalism of the interviewer, and the accuracy of the results depends on this, is no small measure.

The informal trade in high value goods such as gold and silver are also excluded from the purview of the present study. The informal trade in these high value goods mostly takes the form of informal capital transfers rather than commodity trade in the case of Indo-Sri Lanka trade.⁸ Informal trade in labor services between India and Sri Lanka is also excluded from the present analysis.⁹

⁸ See Sarvananthan (2001)

⁹ See Sarvananthan (2001)

A major limitation of the present study is the exclusion of unofficial capital transfers between India and Sri Lanka. As capital transfers are not allowed officially (unless for investment in joint ventures) between India and Sri Lanka there is a thriving informal market for capital transfers (*undiyal*) between the two countries.

2 Survey-Based Estimation of Indo-Sri Lanka Informal Trade

As mentioned earlier, informal trade between India and Sri Lanka takes place largely through air passengers and by sea through country boats. Informal trade by air takes place through air passengers who travel solely for the purpose of informal trade between the two countries. Informal traders/carriers travel between Colombo and the three major cities namely Chennai, Tiruchirapalli and Thiruvananthapuram. In addition, goods are also procured from Delhi and Mumbai, but traders usually carry goods from these cities by train to Chennai from where the goods are carried by air. This is essentially done to cut down on cost of travel. As mentioned earlier in order to prepare estimates of air-borne informal trade three sets of estimates were obtained, one each from the three categories viz., informal traders, carriers and 'Knowledgeable Persons'. The last category comprised of airline officials, customs officials, other knowledgeable persons. For obtaining estimates of sea-borne informal trade information was elicited only from the 'Knowledgeable Persons' category which comprised of officials at the sea-ports and knowledgeable persons. For each of the categories commodity-wise estimates were obtained from respondents.

2.1 Sampling Design of the Survey

A total of 195 respondents were selected in Chennai, Tiruchirapalli and Thiruvananthapuram for preparing estimates of informal trade by air and a total of 25 respondents from Chennai, Tuticorin and Rameshwaram were selected for preparing estimates of sea-borne informal trade. While the focus in the case of air-borne informal trade was to obtain estimates from actual participants in trading, for sea-borne informal trade, information was obtained only from knowledgeable persons. Given the fact that sea-borne trade is largely war-induced, it was not possible to interview actual participants in

trade.¹⁰ As a result estimates of sea-borne informal trade are likely to be more unreliable than the estimates of air-borne informal trade.

The number of respondents in each city and in each category are shown in Table 1. In the case of air-borne informal trade of the total of 195 respondents Chennai accounted for 62%, Tiruchirapalli 23% and Thiruvananthapuram accounted for 15%. Of the total respondents in the three cities, 46% were air carriers, another 46% were traders and 8% constituted the ‘Knowledgeable Persons’ category. In the case of sea-borne informal trade, of the total of 25 respondents 60% of the respondents were from Chennai, and 20% respondents each from Tuticorin and Rameshwaram.

Table 1: Distribution of Sample Size for Estimating Air-borne and Sea-borne Informal Trade by Category of Respondent and Centre

	Air-Borne			
Category	Chennai	Tiruchirapalli	Thiruvananthapuram	Total
Carriers	55	22	13	90
Traders	59	19	12	90
Knowledgeable Persons	7	4	4	15
Total	121	45	29	195
	Sea-Borne			
Category	Chennai	Tuticorin	Rameshwaram	Total
Knowledgeable Persons	15	5	5	25

2.2 Estimates of Air-borne Informal Trade

Actual participants in informal trade were asked to give an estimate of the value of their own commodity-wise informal trade and about their perception on the commodity-wise value of trade carried out on a particular route. The main air routes for informal trade were Chennai/Colombo, Tiruchirapalli/Colombo and Thiruvananthapuram/Colombo. The

¹⁰ The war torn areas of Sri Lanka often trade informally with India in a large variety of items. Also, there are 65 items that are barred from entering the war zone areas in the North and East from the rest of the country.

respondents in the ‘traders’ category and ‘carriers’ category were more open about their perceptions on route-level estimates than about their own trade. Hence, the perceptions on route level estimates of both these categories were used for preparing estimates of informal trade. The estimates for the ‘Knowledgeable Persons’ category were arrived at by consolidating information on value of informal trade per trip, number of passengers travelling and the proportion of informal traders amongst passengers travelling between India and Sri Lanka. (See Table 1a and Table 1b in Appendix for details)

Table 2 shows the center-wise estimates of air-borne informal exports and imports. The estimates reported in Table 2 are from the second round. Average commodity-wise estimates from the first round were tabulated for each of the categories. In the second round the respondents of each category were provided with the commodity-wise average estimates within a range of $\pm 20\%$ around the average rather than the average commodity-wise estimate. As the number of rounds was limited to two, a consensus was sought on a range (defined as $\pm 20\%$ around the average) within which the average commodity-wise estimate is likely to be. The second round commodity-wise average estimates for each category were summed-up to obtain informal trade estimates of each category.¹¹ The reference period for the estimate is April 2000 to March 2001. It is important to mention that the second round could not be carried out for carriers as the survey was carried out at the airports. As the carriers were mobile between countries they could not be contacted again during the survey period. The last column gives the weighted average over different categories of respondents with the number of respondents in each category as weight to arrive at the weighted average for the center. Some respondents gave perceptions on exports, some gave their perceptions on imports and some on both. Hence the weighting pattern used is the same for exports and imports.

Table 2 also reveals that Chennai is the main center for air-borne informal exports and imports. Chennai accounts for 85% of informal exports and 79% of informal imports. Total two-way total air-borne trade was to the tune of US \$ 180.2 million.

¹¹ The same method was applied for estimating sea-borne informal trade.

**Table 2: Alternative Estimates of Air-borne Informal Trade by Category of Respondent for Each Centre: 2000-01
(US \$ million)**

Exports	Category of Respondent			Weighted Average of the Estimate
	AirCarriers	Traders	Knowledgeable Persons	
Chennai	139.1	137.9	112.5	137.0
Tiruchirapalli	17.0	10.6	6.8	13.9
Thiruvananthapuram	13.2	7.6	6.5	10.0
Total	-	-	-	160.9
Imports	Category of Respondent			Weighted Average of the Estimate
	Air Carriers	Traders	Knowledgeable Persons	
Chennai	18.5	11.5	21.2	15.2
Tiruchirapalli	2.2	3.2	1.2	2.5
Thiruvananthapuram	1.3	2.1	1.5	1.6
Total	-	-	-	19.3

Source: Estimated in the Study

2.3 *Estimates of Sea-borne Informal Trade*

The estimate of sea-borne informal trade is quite low at only US\$ 27.1 million. (See Table 3). However these estimates are only indicative. It needs to be noted that estimates of sea-borne informal trade from Chennai do not indicate that the informal trade is taking place from Chennai. Estimates given by ‘knowledgeable persons’ in Chennai of sea-borne informal trade pertain to perceptions on informal trade from the coastal regions around Tuticorin and Rameshwaram respectively.

**Table 3: Estimates of Sea-borne Informal Trade by Centre: 2000-01
US \$ million**

Centre	Exports	Imports	Export+Import
Chennai	15.4	-	15.4
Tuticorin	6.1	1.9	8.0
Rameshwaram	3.1	0.6	3.7
Total	24.6	2.5	27.1

Source: Estimated in the Study

2.4 *Estimates of Trade Balance*

Table 4 gives a summary of estimates of total informal trade and formal trade. The estimates show that:

- (i) Total two-way informal trade (exports plus imports) is 30% of formal trade.
- (ii) Informal exports from India are 48% of formal exports while informal imports are 29% of formal imports.
- (iii) There is a large trade surplus in India's favor in both formal and informal trade.

Table 4: Summary Estimates of Formal and Informal Trade Balance: 2000-01
US \$ million

Type of Trade	Exports(X)	Imports(M)	X+M	X-M
Formal	640.2	45.0	685.2	595.2
Informal	185.5	21.8	207.3	163.7
Ratio of Informal to Formal Trade	28.9	48.4	30.2	27.5

Source: For formal trade -Monthly Statistics of Foreign Trade, DGCI&S, Kolkata
For informal trade- Estimated in the Study

2.5 *Composition of Air-borne Informal Trade*

Estimates on the composition of air-borne informal trade were obtained from two categories of respondents, namely, air carriers and informal traders. A weighted average of each commodity group was arrived at by using the number of respondents in each category as weight.¹² Such estimates were prepared for each center. It can be seen from the last column of Table 5 that sarees with a share of 40% are the single largest item of informal exports. In fact informal traders were of the opinion that sarees are a high value item and are more likely to be traded by air than by sea. Electrical and mechanical items were the second largest item accounting for 20%, followed by garments other than sarees accounting for 17% of total informal exports. These three items together account for 77% of total informal exports; utensils has a share of 12%. The combined share of all other items i.e., food, medicines etc. is only 11%. However, there were some differences in

¹² We were unable to get estimates on composition of informal trade from the 'Knowledgeable Persons' category of respondents.

center-wise composition of informal exports. In Chennai sarees was the most prominent item while in Tiruchirapalli and Thiruvananthapuram garments were the largest item being exported informally, followed by sarees and electrical and mechanical items in that order. (See Table 2 in Appendix for details of commodities exported).

Table 5: Commodity Composition of Air-borne Informal Export Value by Centre: 2000-01 (Percentage Share)

Export Item	Chennai	Tiruchirapalli	Thiruvananthapuram	Share in Total Informal Exports
Sarees	43.4	23.8	19.6	40.2
Garments	13.3	33.1	44.2	17.0
Utensils	11.8	10.5	10.9	11.7
Electrical & Mechanical items and parts	20.3	17.4	14.6	19.7
Brass Items	0.9	0.0	0.0	0.8
Food Items	3.4	6.3	5.4	3.8
Medicines	1.0	1.5	1.3	1.1
Sports Goods	0.3	0.0	0.0	0.3
Electronics	1.4	0.0	0.0	1.2
Agarbatti	0.3	0.0	0.0	0.2
Miscellaneous	3.9	7.4	3.9	4.2
Total	100.0	100.0	100.0	100.0
Total Exports(US \$ mn)	137.0	13.9	10.0	160.9

Source: Estimated in the Study

Table 6: Commodity Composition of Air-borne Informal Import Value by Centre: 2000-01 (Percentage Share)

Import item	Chennai	Tiruchirapalli	Thiruvananthapuram	Share in Total Informal Imports
Electronics	31.6	25.9	19.9	29.8
Cosmetics	23.0	17.6	11.4	21.3
Spices	34.2	45.3	48.5	37.0
Cigarettes	4.3	3.1	1.7	3.9
Liquor	6.9	8.1	3.4	6.8
Ceramics	0.0	0.0	13.5	1.2
Bags	0.0	0.0	1.7	0.1
Total	100.0	100.0	100.0	100.0
Total Imports (US \$ mn)	15.2	2.5	1.6	19.3

Source: Estimated in the Study

Table 6 shows the center-wise composition of informal imports from Sri Lanka. The last column in Table 6 gives the composition of total informal imports from Sri Lanka. Spices are the single largest item being imported informally, followed by electronic items and cosmetics. Except for spices and ceramics, all other items are third country goods. There is not much variation in the center-wise composition of informal imports. (See Table 2 in Appendix for details of commodities imported).

2.6 *Composition of Sea-borne Informal trade*

Tables 7 & 8 give the composition of sea-borne informal exports and imports respectively.

**Table 7: Composition of Sea-borne Informal Export Value by Centre: 2000-01
(Percentage Share)**

Export item	Chennai	Tuticorin	Rameshwaram	Share in Total Informal Exports
Garments	0.0	7.1	3.6	2.2
Electrical and Mechanical	38.8	33.9	32.1	36.8
Grocery items	25.6	42.9	60.7	34.3
Utensils	16.4	0.0	0.0	10.2
Chemicals	18.5	10.7	0.0	14.2
Miscellaneous	0.7	5.4	3.6	2.2
Total	100.0	100.0	100.0	100.0
Total Exports (US \$ mn)	15.4	6.1	3.1	24.6

Source: Estimated in the Survey

**Table 8: Composition of Sea-borne Informal Import Value by Centre: 2000-01
(Percentage Share)**

Import item	Tuticorin	Rameshwaram	Share in Total Informal Imports
Electronics	42.9	38.5	41.9
Cosmetics	5.7	19.2	8.8
Spices	22.9	23.1	22.9
Liquor& Cigarettes	28.6	19.2	26.4
Total	100.0	100.0	100.0
Total Imports (US \$ mn)	1.9	0.6	2.5

Source: Estimated in the Survey

What is noticeable is that electrical and mechanical items and grocery items are the largest items being exported informally from India. Informal imports by sea which are of the order of only US\$ 2.5 million comprise largely of electronic items.¹³

2.7 Perceptions on Impact of Trade Liberalization on Informal Trade

Informal traders and air carriers in all the centers (90 each of informal traders and air carriers as shown in Table 1) were asked about the impact of trade liberalisation on informal exports and imports. Traders were asked whether there was an increase, decrease or no change in the volume of informal trade since 1995.¹⁴ Table 9 shows that since 1995 there was an increase in informal exports of textile items and a decrease or no change in informal exports of all other items. Informal imports of all third country goods experienced a decline since 1995 while there was no change in the informal imports of locally produced spices. It is interesting to note that while there was a very perceptible decline in demand for third country goods from Sri Lanka, a significant amount of third country goods were being procured from other Indian cities, particularly Delhi. Delhi is a major center where third country goods (mostly made in China) are procured from the Indo-Nepal border, Thailand and some countries from the Middle East and South-East Asia. Agents from Delhi go regularly to Chennai and supply third country goods to traders. Another point that emerged during our discussions with traders in Chennai was that third country goods obtained from Sri Lanka were of much better quality (and often branded items) compared to third country goods procured from other Indian cities.

¹³ Composition of sea-borne informal imports could not be obtained from Chennai.

¹⁴ The year 1995 was selected for two reasons (i) by 1995 both countries were on a progressive path of liberalisation- policy liberalisation in 1991 in India coincided with a 'second wave' of liberalisation in Sri Lanka and (ii) in earlier studies on informal trade (Pohit and Taneja; 2000) perceptions on impact of trade liberalisation on informal trade were sought from informal traders since 1995.

**Table 9: Perception Regarding Impact of Trade Liberalization on Informal Trade
(Percentage of Air- Carriers and Informal Traders)**

Export Commodity	Since 1995			
	Increase	Decrease	No Change	Total
Textiles	58	12	30	100
Machinery & Electrical items	46	4	50	100
Utensils	4	62	34	100
Food items	0	67	33	100
Miscellaneous	20	60	20	100
Import Commodity	Since 1995			
	Increase	Decrease	No Change	Total
Electronics	0	100	0	100
Cosmetics	0	85	15	100
Spices	0	18	72	100
Cigarettes	0	72	38	100
Liquor	0	68	32	100

2.8 Summary of Survey-Based Estimates

The survey-based quantitative estimates of Indo-Sri Lanka informal trade show that total informal trade is quite significant and is US \$207mn. Informal trade is largely air-borne constituting 87% of total informal trade, the rest 13% being sea-borne informal trade. Informal trade is largely in one direction from India to Sri Lanka; informal export from India accounts for 89% of the total of US \$207 mn while informal imports from Sri Lanka are only 11%.

Comparisons with formal trade reveal that total two-way informal trade (air-borne plus sea-borne) is 30% of formal trade. Also there is a large trade surplus in favour of India in both formal and informal trade.

The estimates on composition of air-borne informal trade show that textiles are the largest item constituting 57% of total informal air-borne informal exports, followed by electrical and mechanical items constituting 20%. Other items exported informally are utensils, food items, electronic items, sports goods, brass items, medicines and agarbattis. Air-borne informal imports comprise largely of spices accounting for 37%, followed by

electronics accounting for 30%. The other items imported informally are cosmetics, cigarettes, liquor, ceramic and bags.

The estimates of composition of sea-borne informal trade show that the two largest items viz., electrical and mechanical items and grocery items accounted for 71% of sea-borne informal export to Sri Lanka. The other items exported informally by sea are utensils, chemicals and garments. The largest item imported informally by sea from Sri Lanka to India is electronics constituting 42% of sea-borne informal import. The other items imported informally by sea are spices, liquor, cigarettes and cosmetics.

Perceptions on impact of liberalization on air-borne informal trade since 1995 reveal that there was an increase in informal exports of textile items and a decrease or no change in informal exports of all other items. Informal imports of all third country goods experienced a decline since 1995 while there was no change in the informal imports of locally produced spices.

3. Characteristics of Indo-Sri Lanka Informal Trading

This section highlights the qualitative aspect of Indo-Sri Lanka informal trade based on the framework outlined in section 1. The analysis is based on the results of the survey carried out in Chennai, Tiruchirapalli, Thiruvananthapuram, Tuticorin, Mumbai and Rameshwaram during May to October 2001.

This section focuses on the key features of the transacting environment of informal and formal tradings as revealed by the survey. As mentioned earlier, the fact that informal trade continues unabated implies that there is an institutional mechanism that enables such trade to take place. The survey instrument was designed to elicit information on the profile of informal traders in terms of nature of trading activity and commodities traded. The transacting environment of informal trading has also been analyzed in terms of entry characteristics, nature of contracts, information channels, aspects of risk in informal trading and its financing, role of ethnic networks and aspects of transaction costs. The transacting environment of formal trading is analyzed in terms of transaction costs

incurred both in terms of time and money. In the light of comparisons drawn between formal and informal traders factors influencing informal trade flows are identified from the survey. The last sub-section presents a comparative statistical analysis of formal and informal traders in terms of a set of variables. The format for analysis is the same as that in Pohit and Taneja(2000) with suitable modifications. The changes that have been incorporated in the present study are specifically mentioned.

3.1 *Sampling Design*

While the selection procedure of formal and informal traders has already been explained earlier it needs to be reiterated that while formal traders were selected randomly from lists of registered traders in Chennai, Tuticorin and Mumbai, the selection of informal traders was done on the basis of information obtained from knowledgeable persons. Estimates based on such a selection procedure may only be indicative. Formal and informal traders were selected on the basis of information obtained from knowledgeable persons as published data on center-wise formal trade is not available. Discussions with the Directorate General of Commercial Intelligence and Statistics (DGCI&S) in Calcutta helped in arriving at the proportion of formal traders to be selected from each center.¹⁵ Further discussions were held with customs officials in Chennai, Tuticorin and Mumbai to re-confirm the relative importance of each of these centers in formal trade. The center-wise distribution of respondents is shown in Table 10. Selection of informal traders was made using the same criteria as for quantitative estimation of air-borne informal trade. The centre-wise distribution of sample respondents in different centers is given in Table 10.

Table 10 : Number of Respondents in Formal and Informal Trade by Centre

Centre	Informal Trade	Formal Trade
Chennai	35	29
Tiruchirapalli	12	
Thiruvanthapuram	8	
Tuticorin		15
Mumbai		11
Total	55	55

¹⁵ The DGCI&S headquarters based in Calcutta are the assigned authority that publishes India's foreign trade statistics.

3.2 Characteristics of Traders

Trading Activity

Informal and formal traders were classified according to three main trading activities namely exporting, importing and selling in the domestic market. Table 11 shows that the dominant activity of informal traders is exporting and selling in the domestic market. (44 traders). Informal traders did not specialize in either exporting or importing, (one firm was engaged in only exporting and four in importing only) nor were they engaged in the simultaneous activity of exporting and importing (only two traders). Only four traders were engaged in importing and selling in the domestic market. Only two firms were engaged in all three activities. In formal trade, the dominant activity is exporting only (36 traders). Fifteen formal traders were found to be exporting and selling in the domestic market. Formal traders do not engage in exporting and importing (one trader) or in importing only (one trader). Only three firms were importing and selling in the domestic market and only one was engaged in all three activities.

Table 11: Sample Respondents in Different Trading Activities

Trading Activity	Type of Trade	
	Informal	Formal
Exporting only	1	36
Importing only	4	1
Exporting and Importing	2	1
Exporting and selling in domestic market	44	15
Importing and selling in domestic market	4	3
All three activities	2	1
Total number of Respondents	55	55

Note: Figures in parentheses are percentage of total respondents while figures not in parentheses give the number of respondents

Commodities Traded

The important commodities traded between India and Sri Lanka both formally and informally are shown in Table 12. The major categories exported informally are textiles, utensils, electrical items and machinery and parts while those exported formally are

machinery and parts, food and chemicals. Commodities imported informally comprised of food, liquor and tobacco, cosmetics and electronics while those imported formally comprised mainly of textiles and machinery and parts. It appears that there is an overlap of commodities exported formally and informally in some food items, machinery and spares, electrical items and utensils. On the other hand the markets for formal and informal imports are more or less segmented as the only overlapping item is spices. Except for spices, informal imports comprise largely of third country goods.

Table 12: Percentage Distribution of Respondents by Commodity Traded

Commodity Traded	Type of Trade			
	Informal		Formal	
	Export	Import	Export	Import
Textiles	28		10	29
Electrical items	15		6	
Machinery and parts	6		31	29
Utensils	17		4	
Food	13	20	27	14
Chemicals	4		14	
Liquor and Tobacco		20		
Electronics	2	30		
Cosmetics		30	2	
Primary goods			4	14
Miscellaneous	15		2	14
Total	100	100	100	100

Note: See Table 3 in Appendix for index of goods traded

3.3 *Transacting Environment of Informal Trading*

This section highlights the key findings of the survey relating to various aspects of the transacting environment of informal traders.

Entry, Nature of Contracts and Information

Given the nature of informal trading, how difficult is entry into informal trading? The survey revealed that by and large traders located their initial trading partners through friends and relatives rather than on their own initiative. In India 68% of the respondents had entered into informal trading through friends or relatives and only 32% entered on their own initiative. This evidence points to the presence of non-anonymous transactions.

The mode of entry for informal traders is very similar to the evidence obtained in the Indo-Bangladesh and Indo-Nepal surveys.

Further information was sought on whether there were any barriers to entry in informal trading markets. These aspects were not included in our earlier analysis on Indo-Bangladesh and Indo-Nepal informal trade. Traders were asked whether existing participants considered new entrants a potential threat and therefore posed resistance to them. Eighty percent of the informal traders said that the existing firms did not pose any barriers to their entry.

The survey provided further evidence on non-anonymous transacting environment for informal traders. Ninety-two percent of the traders mentioned that they had contact with their trading partners outside their trade deals. In addition, 60% of the respondents had repeat dealings with more than 50% of their trading partners. Repeat dealings is an important indicator of trust between trading partners.

The survey instrument also sought information on contractual arrangements between informal trading partners. The options regarding different modes of contractual arrangement were a modified version of the earlier survey so that more accurate information could be obtained from respondents.¹⁶ Four options posed to respondents were advance payment, credit because of prior dealing, credit because of third party reference and use of collateral. The two predominant modes of finalizing trade deals viz., credit transactions because of prior dealings was indicated by 80% of informal traders and advance payment mode was used by 44%. Only 9% of the informal traders entered a credit arrangement because of third party reference. Traders use more than one mode of payment depending on the informal trader and goods involved. The mode of payment also depends on availability of funds with the importers. According to the advance payment mode the profit margin is high for the importer, but they have to invest capital and take the risk of potential default in delivery of goods. On credit transactions the profit margin is lower for

¹⁶ Pohit and Taneja (2000)

the importer, because the informal trader invests the capital and takes the risk.¹⁷ The predominant modes of payment for informal trade transactions reveal a high degree of honesty and integrity between the transacting parties. The use of collateral was indicated by only 4% of informal traders. The infrequent use of collateral provides indirect evidence supporting absence of significant information asymmetries among transacting traders.

The mechanism that supports information flows is also very important since what transacting parties know and do not know will determine systematically the arrangements that will characterize exchange between them. Informal trade hinges on how traders can obtain information on commodities and quantities to be traded. One of the competitive advantages of informal trade vis-à-vis formal trade is meeting the demand for goods speedier than through the formal channel. Hence, speedier access to market information is *sine qua non* for informal traders. Traders were asked how they obtained such information with the option of giving multiple choices. The informal distribution channel was the most important source of information as was indicated by 76% of the informal traders. Seventy-three percent of informal traders mentioned obtaining information by making personal trips. It is important to note that the distribution network serves the dual purpose of both marketing and information channel. Forty-four per cent of the informal traders said that they obtained information from the formal channel. The dependence on official media was indicated by 18% of informal traders and trade fairs was indicated by only 5% of the informal traders. Thus official media and trade fairs as channels of information flows are less important for traders engaged in informal trade. The evidence on sources of information corroborates our earlier survey findings in informal trading between India and Bangladesh and between India and Nepal.

Risk

A crucial aspect in informal trading is the risk associated with informal trading. Any illegal activity runs a risk, because there are no legal contracts involved. Respondents were asked about the extent of risk faced by traders in risk attributes arising out of the transacting environment of informal traders. Risk for exporters could arise due to, default

¹⁷ (see also Sarvananthan, 2001)

in payment, and due to seizure while that for importers could arise due to goods not conforming to specifications, default in delivery/ delay of goods, and due to seizure by enforcement agencies. Exporters and importers were asked to rank their perception on the extent of risk ranging from never, rarely to frequent. The survey reveals that the modal range for each of the risk attributes for both exporters and importers was either 'never' or 'rarely'. (See Table 13). The responses were marked by the absence of frequent occurrence as the modal range of any risk attribute. These results again indicate a high degree of honesty and integrity among informal traders. It also reveals the laxity of law enforcement because the goods lost due to seizure is very low as perceived by both exporters and importers.(See Table 13). Low risk in informal trading was conspicuous in both Indo-Bangladesh and Indo-Nepal informal trade.

Table 13: Percentage of Informal Traders Reporting Extent of Risk in Modal Class by Risk Attributes

Risk Attribute	Type of Informal Traders	
	Importer	Exporter
Goods not conforming to specifications	91 (Never)	N.A
Default in delivery of goods	64(Never)	N.A
Goods lost due to seizure	65(Never)	90(Never)
Default in payment	N.A	76(Never)
Delay in delivery of goods	100(Never)	N.A

Note: Percent of respondents in the modal class: labels in parenthesis refer to modal class in options – never, rarely and frequently.
NA = Not Applicable

One way of gauging the extent of risk is to look at probability of goods being seized by enforcement agencies. Respondents were asked to give their perception on the probability of being caught by enforcement agencies. Fifty five percent of the respondents claimed that the probability of seizure was nil. (See Table 14). Some of the respondents seemed to include probability of detection which is often cleared on payments of rents to the enforcement agencies. In other words, the probability of seizure may be lower than is revealed in our survey. While these findings are similar to those obtained in Indo-Nepal and Indo-Bangladesh informal trading, it assumes greater significance in the case of Indo-

Sri Lanka as most of the trade takes place visibly through customs, immigration and baggage checks at airports. This is unlike informal trade across large land borders where the means of enforcement are limited.

Table 14: Percentage Distribution of Informal Traders by Probability of Seizure

	Probability of seizure			
	<i>0</i>	<i><0.03</i>	<i>0.3-0.06</i>	<i>.06-.01</i>
Percent of Informal Traders	55	24	18	3

Note: Respondents were asked to tick in the appropriate probability range that was provided in the questionnaire.

If risk perceived by informal traders regarding various attributes is low, then clearly traders have developed mechanisms to mitigate risk. As mentioned earlier, non-anonymous transactions is an important mechanism that minimizes risk in informal trading. Further, informal traders make payments to enforcement agencies to mitigate risk. Ninety-four percent of the respondents paid less than 3% of their turnover to enforcement agencies and only six percent of informal traders paid between 3% to 5%. In fact the average payments made by the informal traders was 2% of their turnover. Similar risk mitigation methods were adopted in Indo-Bangladesh and Indo-Nepal informal trade.

Financing Informal trade

Intrinsic to the activity of informal trading is the issue of financing such activities. If goods are being traded across borders, then the transaction is complete only when payments are made for the goods received. Respondents were asked about the sources of finance with the option of ticking more than one option in case they used more than one source of finance. All informal traders relied to some extent on their own resources for financing trading activities. Own finances were further supplemented with funds from friends and relatives (49%). Only 7% of informal traders borrowed from informal money lenders and 4% borrowed from banks. The important role of own financing and financing from friends and relatives was seen in the case of Indo-Bangladesh and Indo-Nepal informal trade as well.

Information was also sought on the mode of financing informal trade. In the survey there was evidence of different mediums of exchange used by traders e.g., barter, gold, silver Indian currency, Sri Lankan currency and US dollars. However there was a predominance of certain modes of financing. Ninety-eight percent of the exporters and all importers made part of their payments in Indian currency. Exchange was also carried out in US dollars for both exports and imports. Conversions of all currencies into the local currency of the trading country are carried out through the informal money market. Access to which is easy for all informal traders. (See Table 15). Evidence on the use of US \$ was not visible in the case of Indo-Bangladesh and Indo-Nepal trade where local partner country currencies were easily convertible in the informal capital market.

Table 15: Percentage of Informal Traders by Mode of Financing

Mode of Finance	Type of Trading	
	Export	Import
Barter	2	20
Gold	0	0
Silver	0	10
Indian Currency	98	100
Sri Lankan Currency	4	20
US dollar	30	40

Note: Respondents had the choice of ticking more than one option.

An aspect that has not been dealt with is the issue of balance of payments. In Indo-Bangladesh where there is one-way informal trade from India to Bangladesh and hence a balance payments in India's favor, it was found that there was an accumulation of Bangladeshi currency in India. Interestingly, illegal and legal migrants working in India were remitting the Bangladeshi currency in the informal money market back to Bangladesh. In the case of Indo-Sri Lanka informal trade we did not find any such evidence. Discussions with traders revealed that the informal money market operates through a colossal international network, where financing informal trade in goods is only

one of the activities. However, what is evident is the domination of the Chettiar caste in the informal money market between India and Sri Lanka.¹⁸

Ethnicity of Informal Traders

Ethnic trading networks are a key to understanding the modalities of informal trade in various parts of the world. A common language, religion, culture, etc, play a critical role in facilitating trading across the border. This is particularly so where the same ethnic community is divided into two national boundaries; for example, the division of the Bengali nation into Bangladesh and West Bengal state of India.

The distribution of the total sample among different ethnic communities is reflective of the participation of different ethnic communities (in the order of importance) in the informal trade between India and Sri Lanka. In India 56% of the informal traders were Tamils from Tamil Nadu , 23% were nationals from rest of India, 15% were Muslims and 6% were Sinhalese migrants from Sri Lanka residing in India.¹⁹ In the Sri Lankan territory 60% of the survey respondents were hill-country Tamils, 24% of the respondents were Muslims, 12% were North-East Tamils, and the rest 4% were Sinhalese (See Table 16).

Table 16: Percentage Distribution of Informal Traders by Ethnic Community

Ethnic Community	Percent of Informal traders
Sinhalese of Sri Lanka	6
Tamils of Sri Lanka	0
Muslims	15
Tamils in India	56
Nationals of Rest of India	23
Total	100

¹⁸ The Chettiar community went to Sri Lanka well before the plantation workers migrated from Tamil Nadu to Sri Lanka in the late nineteenth century. See Sarvananthan (2001)

¹⁹ Through informal discussions it was gathered that the Sinhalese were residing as illegal migrants In India.

Perception of Ethnic Domination of Informal Trade

There is a considerable literature on the ethnic dimension of informal trade in various parts of the world, for example in Africa and South East Asia.²⁰ Very often particular ethnic groups are responsible for organizing and controlling informal trading activities. According to the survey, 58% of the respondents perceived that informal trade between India and Sri Lanka was controlled by the Tamils of Sri Lanka (hill-country), 27% of the respondents felt that informal trade was controlled by the Tamils of Tamil Nadu, 8% felt that informal trade was controlled by nationals of other Indian states and 7% believed the control was by Muslims. (See Table 17).

Table 17: Percentage Distribution of Informal Traders by Perception on Ethnic Domination

Ethnic Community	Percent of Informal traders
Sinhalese of Sri Lanka	0
Tamils of Sri Lanka	58
Muslims	7
Tamils in India	27
Nationals of Rest of India	8
Total	100

Transaction Cost

Informal traders incur transaction costs in the form of payments made to enforcement agencies as bribes, transportation costs, cost of currency conversion, cost of credit and imputed risk premium for safe delivery of goods. The categories of components of transaction cost was widened (from the earlier survey) to include imputed risk premium.

Majority of the informal traders incurred transaction costs between 10% and 20% of turnover. (See Table 18). The average transaction cost incurred by informal traders was 10% of their turnover.

²⁰ See Sarvanathan (2001), Chapter 2 and references therein.

Table 18: Percentage Distribution of Informal Traders by Transaction Cost as Percent of Turnover

	Transaction Cost (TC) as Percent of Turnover			
	<i><10%</i>	<i>10% to 20%</i>	<i>>20%</i>	<i>Total</i>
Percent of Informal traders	25	75	0	100

Note: The average transaction cost for the sample of informal traders is 10% of their turnover.

3.4 Transacting Environment of Formal Trading

Research studies have shown that high transaction costs in official trading exacerbate informal trade. Institutions (the rules and regulations that affect economic activities and trading) determine transaction costs, the incentives and disincentives of compliance, and the benefactors and losers of these arrangements. Below, we review the transacting environment of formal trading in Indo-Sri Lanka trade with a view to understanding and quantifying the sources of transaction costs in formal trading.

The transaction costs in the formal channel may arise at the following stages of international trade transactions: (1) securing import/export licenses, (2) procedural delays at the customs, (3) processing cost at the banks, (4) movement of merchandise. All these procedural complexities along with institutional bottlenecks and lack of information transparency give rise to rent-seeking behavior by the officials at various stages of trading. These may cost traders time and money including demurrage charges, making it more expensive to trade formally. The additional time taken is estimated as the difference between the actual time taken and the average of trader's perception about the time that should be required at different stages of transactions. The survey reveals that licensing takes up-to 10 extra days for 54% of formal traders. Further, all formal traders reported that there was a delay of up-to 10 additional days in getting clearances from customs. Additional time for clearances from banks took up-to 10 additional days by 88% of the formal traders. Transportation of merchandise between India and Sri Lanka takes up to 10 extra days than expected by 98% of formal traders. (See Table 19).

Table 19: Percentage Distribution of Formal Traders by Elements of Transaction Cost in terms of Additional Days

Stage of Transactions	Percent of Traders Reporting Additional Time Required (in days)			
	1-10	10-20	>20	Total
Licenses	54	10	36	100
Customs	100	0	0	100
Banks	88	5	7	100
Transportation	98	2	0	100

Transaction Cost

Formal traders incur transaction costs in the form of payments made at various stages of trading, transport costs including insurance and cost of credit. In addition, transaction costs of formal traders include payments made to clearing agents. In Pohit and Taneja (2000) transaction costs of formal traders have not included payments made to clearing agents as such payments were not very significant in the case of goods moving across land borders between India and Nepal and between India and Bangladesh. However, such costs were significant in the case of Indo-Sri Lanka trade as formal trade is mostly carried out by sea. Moreover, we gathered from clearing agents that costs of clearing agents did not vary with the destination of goods.²¹ This would imply that Sri Lanka being relatively closer to India formal traders incur a relatively higher costs towards clearing agents when trading with Sri Lanka.²² Majority of formal traders in India (50%) incurred transaction costs between 10% and 20 %. (See Table 20). The average transaction cost incurred by formal traders is 21% of their turnover. Note that the average transaction cost for formal traders is roughly double that for informal traders.

²¹ However, payments to clearing agents did vary with type of commodities traded.

²² See Pohit and Taneja(2001)

Table 20: Percentage Distribution of Formal Traders by Transaction Cost as Percent of Turnover

	Transaction cost as Percent of Turnover				
	<10%	10% to 20%	20% to 30%	>30%	Total
<i>Percent of Formal Traders</i>	24	50	16	10	100

Note: The average transaction cost for formal traders is 21% of their turnover.

3.5 Factors behind Informal Trading

As discussed in Pohit and Taneja (2000) the traditional argument is that informal trade takes place due to trade and domestic policy distortions. As and when such distortions are corrected informal trade would shift to the formal channel. In the present context both India and Sri Lanka have undergone a significant wave of liberalisation in the 1990s. Under the initiative of the South Asian Preferential Tariff Arrangements (SAPTA) both countries offer concessions to each other. But the most significant development is the Indo-Sri Lanka bilateral Free Trade Agreement that was signed between the two countries in March 2000. We have observed in Section 2 that with liberalisation informal trade between the two countries has declined in some commodities but it continues to be significant. Clearly then, there could be other factors including those inherent in the transacting environment of formal and informal trading. The factors can be classified into three broad categories: (i) those that are related to the policy environment, (ii) institutional factors, and (iii) other non-economic factors.

Based on the survey it has been attempted to identify and analyse the relative importance of institutional factors influencing informal trade flows, *vis-à-vis* factors related to trade and policy distortions. Table 21 shows that the most important factor influencing informal trade flows from India to Sri Lanka is the ability of the informal channel to deliver goods much faster than the formal channel. In fact traders said that it was possible to meet an order at one day's notice. Given the fact that most formal trade takes place by sea and that there were several formalities that had to be completed before goods could reach their destination, the informal channel could meet demand much more

quickly. The next important factors were absence of procedural delays and paper work in the informal channel. The fourth most important factor was ethnic ties between trading partners. In fact traders mentioned that they had closer cultural ties with Sri Lankans than with nationals in other Indian states. The fifth most important factor was quick realization of payments. It needs to be mentioned that ethnic ties play a crucial role in ensuring that payments are made promptly. Interestingly, as was found in our earlier study, very few respondents considered tariff and non-tariff barriers to be an important factor in influencing informal trade flows. (See Table 21). On the import front, demand for third country goods was considered the most important factor influencing imports. This factor is clearly related to the difference in tariffs with the rest of the world prevailing in India and Sri Lanka. In the context of the FTA this implies that third country goods do not meet the requirements of rules of origin principles and are therefore traded informally from Sri Lanka to India. However, such trade is significantly lower than was witnessed in the early nineties when informal exports were roughly equal to informal imports. Lowering of tariffs has led to a reduction in informal imports of third country goods in recent years.²³ Other factors considered important in influencing informal imports are ethnic ties, quick realisation of payments, no procedural delays and lower time to reach destination. It is important to mention that informal imports are carried out in locally produced items as well. Our estimates of air-borne informal trade reveal that spices and ceramic are two locally produced items constituting 38% of total informal imports. (see Table 6). Such inflows would take place due to factors other than those related to trade barriers. While third country imports are significant in Indo-Sri Lanka informal trade, a distinguishing feature in Indo-Nepal informal trade is that informal imports are almost as large as informal exports.²⁴

²³ See Sarvanathan (1994)

²⁴ Findings from ongoing study at ICRIER.

Table 21: Percentage of Informal Traders Reporting Reasons for Informal Trade

Reasons	Type of Trading			
	Export		Import	
	(1)	(2)	(3)	(4)
Low transportation cost	20	8	0	
Lower time to reach market	81	1	75	4
Demand for third-country goods	0		80	1
No paperwork	76	3	72	5
No procedural delays	78	2	76	3
Lower bribes than formal channel	47	6	0	
Lower bribes in air-borne than sea-borne informal trade	13	9	0	
Quicker realization of payments than formal channel	57	5	76	3
<i>Presence of bazaars/haats</i>	0		0	
Ethnic ties across the border	72	4	78	2
Leakage of administered price goods from India	2	11	n.a	
Presence of high tariffs in official channel	0		65	6
Presence of high domestic taxes on imports	0		0	
Imports are restricted or banned	n.a		0	
Exports are restricted or banned	0		n.a	
Rules of origin certification under the FTA	26	7	n.a.	
Easier to meet demand from across the border than the domestic market	4	10	0	

Note: Respondents had the option of ticking more than one option.

Columns (1) and (3) indicate percentage of respondents and column (2) and (4) indicate ranking of export factors and import factors respectively.

3.6 *Discriminating Characteristics of Formal and Informal Trading*

In the previous section we have examined several differential characteristics of formal and informal trading between India and Sri Lanka as well as important modalities of such trade. We shall now undertake a more technical statistical analysis of the differential characteristics. The significance of the differences is first evaluated in terms of a univariate test for each of the variables followed by a multivariate test.

3.6.1 *Univariate Analysis of Differences*

The univariate test applied here is the Wilcoxon signed-rank test. The advantage of using a non-parametric test is that it is free of specific assumptions about the form of the distribution of the variable, which is appropriate in our case. As many of the variables

considered here are qualitative in nature they can be classified or ranked but not measured accurately, hence non-parametric tests are more appropriate for our analysis.²⁵

The database comprises of fifty-five pairs of traders and sixteen parameters. A one-tailed test has been conducted (at a 10% level of significance) since we have prior hypotheses regarding the direction of the difference in many cases. The results for the selected variables are given in Table 22.

The earlier sections have emphasized the role of transaction cost in informal and formal trading arrangements. One of the key hypotheses in the paper is to test whether informal trade flourishes because of lower transaction cost in informal trading than in formal trading. We have used our survey data to arrive at the transactions costs of trading in the two channels. The sign-rank test suggests that transaction costs in formal trade are significantly higher than in informal trade.

Not only are transaction costs important in terms of actual costs incurred, but traders often incur costs in terms of additional time at various stages of transactions. Ideally there should be an imputed cost on time taken for transactions as this would be the correct method of quantifying transaction costs in terms of additional time taken. However, traders were unable to give an imputed value of time cost hence the second best solution had to be adopted viz., eliciting information on time taken at various stages to carry out the trade transactions between the two countries. In the Indo-Bangladesh and Indo-Nepal survey transaction costs for formal and informal traders were considered only in terms of costs. In the present study transaction costs have been measured both in terms of money and time. The survey was used to elicit information on time taken by formal traders to obtain licenses, to get clearances from banks and customs, realization of payments and time taken to transport goods to the destination. Informal traders on the other hand were asked about the time taken for realization of payments and time taken for transportation. The sign rank test shows that the time taken at various transaction stages significantly higher for formal traders than for informal traders.

²⁵ For details see Taneja and Pohit (2002)

In some cases, traders trade informally not because they are unwilling to abide by laws and regulation, but rather they lack the necessary resources to do so (see Kuchta-Helbling, Catherine, 2000). For example, the lack of education deters traders from using the formal channel. Alternatively, the lack of resources may preclude them from updating their knowledge in respect of changes in trade policy. A sign rank test of education levels of two types of traders does indicate that informal traders have lower education levels than the formal ones. Also we find that the awareness levels of formal traders on Free Trade Arrangements between India and Sri Lanka is significantly higher for formal traders than for informal traders. In fact some informal traders who indicated awareness about the FTA did not have much knowledge on the details of the FTA.

Much informal trade takes place due to ethnic ties between trading partners in the trading countries. This is very much true of Indo-Sri Lanka informal trade which flourishes because of traditional, historical and ethnic links. A sign-rank test on our survey data indicates that informal traders show significantly more ethnic linkages than the formal ones. Ethnic ties amongst trading partner-countries in the informal channel help not only in ensuring that payments are made (even in the absence of formal contracts) but also go towards reducing risk and other transaction costs in carrying out trade across borders.

Table 22: Results of Wilcoxon Signed-Rank Test

		India	
		Z	Inference
1.	Transaction cost(TC)	5.7152	$\mu > 0$
2.	Time taken for transactions (Ttime)	6.326	$\mu > 0$
3.	Education (Edu)	3.638	$\mu > 0$
4.	Awareness of FTA (FTA)	2.514	$\mu > 0$
5.	Ethnic ties (Ethnic)	-2.969	$\mu < 0$
6.	Time taken for first trade deal (Timfr)	-1.279	$\mu = 0$
7.	Time taken for current trade deal (Timcur)	2.463	$\mu > 0$
8.	Risk (Xr)	-2.182	$\mu < 0$
9.	Own finance (Ownfin)	-3.261	$\mu < 0$
10.	Average number of transactions/year (Notrdl)	-2.09	$\mu < 0$
11.	Average value per transaction (Avaltran)	5.587	$\mu > 0$
12.	Age of firm (Age)	2.39	$\mu > 0$

13.	Trading in same commodities (Same)	-0.61	$\mu = 0$
14.	Profit	-1.373	$\mu < 0$
15.	Margin fluctuation (Marfl)	3.939	$\mu > 0$
16.	Border price differential (Borpr)	-2.175	$\mu < 0$

Null Hypothesis: $\mu = 0$ for all variables. Where μ is the population median. Depending on a-priori judgement the alternative hypothesis is $\mu > 0$ or $\mu < 0$ for the variable in question.

Note: The results have to be treated with caution because the sample of informal traders is not a random one.

The efficiency of the information channel for informal trading arrangements is judged by the following two attributes: (a) time taken for first trade deal and (b) time taken for current trade deals. The result shows that there is no significant difference between formal and informal traders in the time taken to finalize the first trade deal. However for current trade deals that were taking place between trading partners, time taken to finalize trade deals was significantly higher for formal traders than for informal traders.

The next attribute relates to the combined risk (viz., goods not conforming to specification, incidence of default/delay in delivery and seizure) that traders face in carrying out their transaction. Since informal trade is not legal, do informal traders face higher risk? The statistical test shows that risk is significantly higher in the informal channel than in the formal channel.

The next variable looks at the financing part of formal and informal traders. Do informal traders have access to finance from legal financial institutions? How do they meet their financing need? Do they use a higher proportion of own finance than formal traders for carrying out business? Inference from the test shows that own finance plays a significantly larger role in informal trade than in its formal counterpart.

Do informal traders have a larger number of transactions than formal traders? One way that informal traders could mitigate risk is by having a larger number of transactions. Our test shows that the average number of annual transactions is significantly higher in the informal channel than in the formal channel. This brings us to the next hypothesis, i.e., is informal trade characterized by large number of transactions, each having low volume of trade. This variable was not considered in our earlier analysis of Indo-Bangladesh and

Indo-Nepal informal trade. We find that value of trade per transaction (Avaltran) is larger for formal traders than the informal ones.²⁶ This also implies that as formal traders trade in larger volumes, they require larger amounts of working capital. This explains why own finance and finance from friends and relatives play a minor role in financing formal trade.

Is the formal trader typically in business over a longer period than the informal one? The test reveals that the age of firms was higher for formal than for informal traders.

Informal traders could play a role to narrow down the short-term demand/supply gap. If that is so, the informal trader relative to formal counterpart should not carry out transaction in the same commodity over time. The test however shows that there is no significant difference between formal and informal traders on this count.

Maximization of profits is the objective function at individual level in any trading activity. Naturally, one ponders whether there is significant difference between the profit margins in the two channels. The test on differences in profit margin shows that profit margins are significantly higher for informal traders than for formal traders. Also if profits are higher for informal traders do their profits show higher fluctuations than formal traders? The test shows that margin fluctuation is higher for formal traders than for informal traders.

Border price differential is a driving force for sustaining informal/formal trade activities. Is the border price differential higher for informal traders than for formal traders? The test shows that border price differential is higher for informal traders than for formal traders.

3.6.2 Discriminant Analysis

The factors identified by the univariate tests as important in differentiating the two groups are then simultaneously included in a multivariate test. Our preferred choice of

²⁶ This variable is generated by dividing annual turnover of a trader by the number of transactions carried out during the year.

multivariate technique is step-wise discriminant analysis.²⁷ The procedure begins by selecting the individual variable that provides the greatest univariate discrimination (in terms of groups mean difference or partial F-ratio or F to enter). It then pairs the first variable with each of the remaining variables to locate the combination, which produces the greatest discrimination. The variable, which contributes to the best pair, is selected. In the third step, the procedure goes on to combine the first two with each of the remaining variables to form triplets. The best triplet determines the third variable to be entered, and so on.

The univariate analysis of statistical significance of differences traders has identified 14 attributes. Since discriminant analysis demands that none of discriminating variables should have high correlation with other variables, one needs to drop several of the variables. Our multivariate analysis begins with the following ten variables, namely trading period or age of firms, ethnic ties, education levels and awareness of FTA, fluctuation in margins, profits, time taken for current trade deals, risk, total time for various stages of transactions, transaction costs, and average value of transaction.²⁸

Table 23: Correlation Matrix

	Age	Ethnic	EduFta	Marfl	Profit	Timcur	Risk	Ttime	TC	Avaltran
Age	1.000									
Ethnic	0.071	1.000								
Edu Fta	0.156	0.154	1.000							
Marfl	-0.266	-0.060	-0.148	1.000						
Profit	0.203	0.008	-0.005	0.172	1.000					
Timcur	0.272	-0.018	0.100	-0.069	-0.005	1.000				
Risk	-0.174	-0.015	0.035	0.178	0.008	-0.047	1.000			
Ttime	0.140	0.099	0.204	-0.242	-0.184	0.178	-0.143	1.000		
TC	0.116	0.146	0.147	-0.164	-0.037	0.051	-0.071	0.323	1.000	
Avaltran	0.242	0.121	-0.015	-0.155	-0.204	0.089	-0.162	0.197	0.019	1.000

Note: See Table 22 for details of notation of variables.

²⁷ For details see Taneja and Pohit (2002)

²⁸ The variables, awareness of FTA and education level, are correlated with each other. So, we have constructed a variable called “EduFta” combining the variables education level & awareness of FTA for including in the discriminant analysis. It is expectedly statistically significant with z-statistics 3.73.

Table 23 presents "within group correlation matrix" on all 10 possible discriminating variables included in our analysis. It can be seen from the table that all the correlations are small in magnitude. (variables with correlation greater than ± 0.4 have been excluded from entering the discriminant analysis). Thus, the assumption of the discriminant analysis that none of the possible discriminating variables have high correlation holds true.²⁹

The discriminant function estimated in the last step is as follows:

$$Y = -5.05 + 0.04Ttime - 1.25Ethnic + 0.08Avaltran + 0.94EduFta + 1.06 Marfl$$

Table 24 provides the summary of the step-wise procedure and variables selected with their relative contribution to the discrimination in terms of their partial F-ratio (F to enter or remove). The procedure selects only 5 of the 10 variables to be significant discriminants, namely total time for various stages of transactions (Ttime), ethnic ties(Ethnic), average value of transaction(Avaltran), education levels and awareness of FTA (EduFta) and fluctuation in margins(Marfl). In other words the five variables selected in the discriminant analysis are the ones that account most for the differences in the average score profiles of the two groups of formal and informal traders.

Table 24: Summary of Step-wise Discriminant Analysis

Steps	Discriminating variable entered	F to enter/ remove	Degrees of Freedom	Variables Included
1	Ttime	10.79	(1,108)	Ttime
2	Ethnic	9.39	(1,107)	Ttime, Ethnic
3	Avaltran	9.07	(1,106)	Ttime, Ethnic, Avaltran
4	EduFta	8.24	(1,105)	Ttime, Ethnic, Avaltran, EduFta
5	Marfl	6.04	(1,04)	Ttime, Ethnic, Avaltran, EduFta, Marfl

Note: See Cautionary note at Table 22.

The remaining ones are not significant in the multivariate context. These variables might be good discriminators on their own, but they do not add to the discriminating information contributed by the significant variables. Hence their unique contributions to

²⁹ See Table 22 for explanation on the notations of the variables.

the analysis are inadequate. Our discriminant functions are able to classify correctly nearly 82 per cent of the formal respondents and 91 per cent of the informal respondents. So, they appear to be a good fit.

While the variables selected in the final stage of the discriminant analysis differ amongst countries viz., Indo-Bangladesh, Indo-Nepal and Indo-Sri Lanka, the two common variables selected in all the country studies are education levels and transaction costs. It needs to be mentioned that in the case of Indo-Sri Lanka transaction cost in terms of time but not in terms of money gets selected in the discriminant analysis. Also, the three surveys are not strictly comparable on this count as the latter variable is introduced in the Indo-Sri Lanka survey as part of the modifications carried out on measuring transaction costs.

4. Summary and Policy Implications

This study makes an attempt to prepare estimates of informal trade between India and Sri Lanka and also provides an in-depth analysis of the institutional mechanism that enables informal trade to take place between the two countries. Using insights from New Institutional Economics, informal and formal institutions engaged in cross-border trade are contrasted to examine the transacting environments of formal and informal traders- to understand whether informal trading arrangements provide good institutional solutions.

The survey data point to the evidence of a one-way informal trade from India to Sri Lanka. Informal imports, significant until the early nineties have declined rapidly. While informal trade from India to Sri Lanka takes place in goods produced in India, informal trade from Sri Lanka to India takes place in both goods domestically produced in Sri Lanka and goods that originate in third countries. The important commodities exported informally from India are sarees, garments, electrical and mechanical items/ parts and utensils. The important commodities imported are spices, electronic items and cosmetics. The survey also reveals that since 1995 there has been a decline in most of the commodities exported informally to Sri Lanka and a decline in all commodities imported. The total two-way informal trade is still quite significant estimated at \$207 million and is

30% of formal trade. As in the case of formal trade, in informal trade too there is a balance of trade in India's favor. The study has not looked into the issue of financing of informal trade deficit that Sri Lanka has with India. It is a much larger problem and is beyond the scope of the study. Informal money markets have colossal international networks and financing cross-border informal trade is only one of their activities.

The study provides evidence on various aspects of the transacting environment for informal trading. It reveals that in the absence of formal contracts between trading partners, the informal trading arrangements have developed efficient institutional mechanisms that ensure trade across national boundaries. Evidence from the survey supports the view that informal trading arrangements are characterized by non-anonymous transactions that not only facilitate the entry of firms into informal trading but also serve as important channels of information flows on quantities and commodities to be traded. The survey revealed that risk in informal trading activity is very low.

Our analysis of transacting environment of formal traders indicates they have to incur high costs in terms of time and money at various stages of transactions. The inefficiencies of the formal channel also give rise to rent-seeking activities of concerned authorities.

The survey results confirm our hypothesis that the transaction costs in terms of both money and time in the informal channel are significantly lower than in the formal channel. This aspect was further highlighted when informal traders were asked about why they opted for the informal channel. The survey revealed that factors like quick delivery of goods, absence of procedural delays and paper work, ethnic ties between trading partners, and quick realization of payments were important in driving traders to trade informally between India and Sri Lanka. Tariff differentials were an additional factor influencing informal imports from Sri Lanka. The other reasons for the preference of informal channel appear to be the lower level of education, and lack of awareness of trade rules among the informal traders.

The multivariate test selects five variables, namely, total time for various stages of transactions, ethnic ties, average value of transaction, education level and awareness of FTA and fluctuation in margins that account most for the differences in the two groups of formal and informal traders.

What are the policy implications of the study? It is evident that the magnitude of informal trade is quite large and cannot be ignored in any policy dialogue. It is also evident that the channels through which informal trade takes place are rooted in the strong ethnic ties among the traders and in the historical linkages in these societies. Ethnic trading networks that operate on trust and honesty mitigate risks associated with such trading. The involvement of law enforcement agencies to collect rents (thereby mitigating informal trading risks) also makes the transacting and transporting processes smooth and acts as an added incentive to carry on such trade. It is easily perceived that informal trade under these circumstances would be difficult to eliminate. While it can well be argued that if the transacting environment for informal trading is more efficient than for formal trading, why not let it continue - the danger is that such routes are conduits for drugs/narcotics and arms/ammunition. The aim of policy makers should be to reduce the occurrence of such transactions so that more revenue accrues to the exchequer through duty-collections and the danger of entry of illegal substances into the country is reduced. The associated money laundering to finance such trade deals might prove to be a threat to the smooth functioning of formal capital markets. However focus on law enforcement agencies to detect and obstruct informal transit of goods across borders is not a viable solution as increase in enforcement mechanisms could only lead to increase in rent collections. What would be more effective would be to reduce the impediments to trade in the formal channels and allow free capital movement between the two countries. The reduction of impediments to trade would also have a much larger impact in the form of trade expansion from the South Asian region. It may be stated here that the study finds that the incidence of informal trade between India and Sri Lanka has gone down after liberalization and further reduction of tariffs might reduce the incidence of informal trade.

Information is another important aspect which has to be looked into. It is true that a major proportion of informal traders are locals who do not have high levels of education or are only conversant with local languages. It cannot be expected of them to understand and subsequently follow the terms and conditions of the FTA which is a document only available in English (not in any local language spoken in the two countries) and often difficult even for conversant persons to follow. Such gaps have to be filled by suitable dissemination of information and creation of awareness among traders of the various norms. Time delays due to unnecessarily long and complicated procedures need to be reduced by simplifying the procedures.

In sum, while informal trade is unlikely to be totally eliminated because ethnic trading networks between trading partners would continue to facilitate informal trade by reducing transaction costs through minimization of risk costs, market information and search costs, further reduction of tariffs, improvements in the transacting environment of formal trade, improving awareness and education levels and improving information dissemination would lead to a decline in informal trade flows.

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Appendix

Table 1(a)
Estimates of Air-borne Informal Exports by ‘Knowledgeable Persons’: 2000-01

(1)	Number of Passengers (2)	Proportion of passengers doing informal trade (3)	Value in US \$ per trip (4)	Value of estimated annual exports in US \$ mn (5)
Chennai- Colombo(SL)	104224	50%	1423	74.2
Chennai- Colombo(IA)	48913	55%	1423	38.3
Chennai (SL+IA)				112.5
Tiruchirapalli- Colombo(SL)	22922	30%	985	6.8
Tiruchirapalli (SL+IA)				6.8
Thiruvanthapuram- Colombo(SL)	41879	10%	876	3.7
Thiruvanthapuram- Colombo(IA)	14534	20%	876	2.5
Thiruvananthapuram (SL+IA)				6.5
Total				125.8

Note: SL is Sri Lankan Airlines and IA is Indian Airlines

Data Source for Column (2) : From Airline officials of SL and IA.

Data Source for Column (3) : Given by sample of ‘Knowledgeable Persons’

Column (5)= [Column (3) of Column (2)] x Column (4)

Table 1 (b)
Estimates of Air-borne Informal Imports by ‘Knowledgeable Persons’: 2000-01

(1)	Number of Passengers (2)	Proportion of passengers doing informal trade (3)	Value in US \$ per trip (4)	Value of estimated annual exports in US \$ mn (5)
Chennai- Colombo(SL)	108033	50%	263	14.2
Chennai- Colombo(IA)	48194	55%	263	7.0
Chennai (SL+IA)				21.2
Tiruchirapalli-Colombo(SL)	23715	30%	175	1.2
Tiruchirapalli (SL+IA)				1.2
Thiruvanthapuram-Colombo(SL)	42570	10%	175	0.7
Thiruvanthapuram-Colombo(IA)	14385	20%	175	0.8
Thiruvananthapuram (SL+IA)				1.5
Total (All centers)				23.9

Note: SL is Sri Lankan Airlines and IA is Indian Airlines

Data Source for Column (2) : From Airline officials of SL and IA.

Data Source for Column (3) : Given by sample of ‘Knowledgeable Persons’

Column (5)= [Column (3) of Column (2)] x Column (4)

Table 2

List of Commodities Traded Informally in Quantitative Survey

Exported from India to Sri Lanka

Electrical and Mechanical Items

1. Switches
2. Bulb
3. Tubes
4. Cable
5. Casket
6. Lamp Shade
7. Chokes
8. Copper Wire
9. Fan
10. Armature of Fan, other motors
11. Switch gear
12. Stabilizer (voltage)
13. Inverter
14. Hand Generator
15. Transformer (Small size)
16. Fan Regulator
17. Pumps/Spares
18. Jet Pumps
19. Elect. EPL Tools
20. Hydro Pneumatic Engine
21. Small Lathe Machine
22. Mixers/grinders
23. Piston

Automotive Parts

1. Clutch Wire
2. Gear Box
3. Ball Bearing
4. Crank Shaft
5. Head Light
6. Magnets
7. Dynamo
8. Helmets
9. Guard
10. Tool Box
11. Rear Light
12. Indicator
13. Bush (Rubber+Metal)

14. Brake Shoe
15. Curboratore
16. Brake wire
17. Brake oil
18. Decorative items for automobiles
19. Chain
20. Spark Plugs

Textiles

1. Sarees
2. Lungi
3. Cotton Sarees
4. Bedsheet and Towels
5. Linen
6. Salwar Kameej
7. Hosiery Items
8. Fabric

Chemicals

1. Ayurvedic medicines
2. Allopathic medicines

Food/Grocery Items

1. Rice
2. Pulses
3. Spices
4. Garlic
5. Curry Powder
6. Onion
7. Potato
8. Cashew
9. Resins

Utensils

1. Steel pots and pans
2. Plates
3. Bowls
4. Cutlery
5. Woks
6. Storage boxes
7. Pressure cookers
8. Gas stoves

9. Miscellaneous kitchen ware

Electronics

1. Video cassettes and C.D.s

Miscellaneous

1. Toys
2. Imitation/Gold Plated Items
3. Other ladies imitation jewellery
4. Decorative Items
5. Writing Paper/Books
6. Handicrafts Items

Brass items

Sports goods

Aggarbattis

Import Items

Electronics

1. Music system
2. Calculators
3. Cameras
4. Watches
5. Video cassettes & C.D.s

Cosmetics

1. Body spray/Deodrants
2. Soap and Shampoo
3. Perfumes

Spices

1. Cinnamon
2. Cloves
3. Cardamom
4. Pepper

Ceramic items

Travel bags

Table 3: Index for Goods Traded in Qualitative Survey

(For Table 12)

Informal Exports

food includes garlic, dry grape, cashew, rice, pulses, onion, potato, curry powders

textiles include fabrics, cotton sarees, lungi, salwar kameez, towel, bed sheets, linen, hosiery items

chemicals include allopathic and ayurvedic medicines

machinery and spares include small lathe machines, automotive parts, fibretube wire

electrical items include motor pumps, water and jet pumps, mixers/grinders, inverter, hand generators, transformers, fan regulators, switches, plugs, bulbs, tubes, cables

electronics include CDs, video cassettes

utensils include steel utensils, pressure cooker and spare parts, kitchenware

miscellaneous includes decorative items, writing paper, metal brass religious articles, sports goods, handicraft toys, paper book gift articles, bags, etc.

Informal Imports

Food includes spices

Liquor & cigarettes,

cosmetics include soap, perfumes, body spray

electronics include CDs, videos, calculators, cameras

Formal Exports

food includes garlic, coriander, gingeroil, onion, sama pods and leaves, curry powder and spices, salt, vegetables, rice, chillies, turmeric, lentils, groundnut.

textiles include cotton shirts, fabrics, cotton fabric, spun yarn dyed polyester blended fabric.

chemicals include lab chemicals, anti corrosive products, medicines, poly bags

cosmetics include hair oil, perfumes

machinery and spares include rubber lining of steel articles, lab instruments, break lining, mechanical typewriter, LPG cylinder, medical equipment, plant machinery, tools, industrial scraps, clutch fittings, raw materials for industry, spare parts, engine with chassis, automotive parts,

electrical items include electric kitchen machines, electric spike buster, air conditioner,

utensils include steel utensils,

primary goods including timber, stones, sand.

miscellaneous includes nets

Formal Imports

food includes spices

textiles include thread, padding

machinery and spares include industrial scraps

primary goods include timber

miscellaneous include waste papers