MAHAWELI ENTERPRISE DEVELOPMENT

MED/EIED PROJECT

(USAID/Sri Lanka Project No. 383 - 0090)
(Contract No. C-00-0031-00)

A STUDY OF AIR FREIGHT RATES AND SPACE AVAILABILITY FOR PERISHABLE HORTICULTURAL PRODUCTS AND LIVE FISH

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INTERNATIONAL SCIENCE AND TECHNOLOGY INSTITUTE, INC.

WITH :

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CONSULTANTS TO THE MAHAWELI AUTHORITY OF SRI LANKA

The Mahaweli Enterprise Development Project

The development of the natural and human resources of the Mahaweli river basin has been a high priority of the Government of Sri Lanka and international agencies since the late 1970's. Largely completed are the construction of dams, irrigation and power systems, roads and other physical infrastructure, the settlement of the land and the formation of the agricultural production base. The challenge for the 1990's is to build a diverse, dynamic economy generating higher incomes for Mahaweli families. In meeting this challenge, the private sector has a leading role to play.

The Mahaweli Enterprise Development Project (MED) is a special initative of the Mahaweli Authority of Sri Lanka, with the support of the United States Agency for International Development. MED promotes private investment and job creation in agribusiness, manufacturing, tourism, minerals and services by directly assisting entrepreneurs and companies with technical expertise, marketing support, training, business advisory services and credit. MED also provides policy analysis support to improve official frameworks for sustainable enterprise development in the Mahaweli areas.

The Employment, Investment and Enterprise Development Division of the Mahaweli Authority is responsible for MED implementation. Technical consultancy is provided by a consortium led by the International Science and Technology Institute, Inc., a private consulting firm with head offices in Washington, D.C. Also in the consortium are Agroskills, Development Alternatives, Ernst and Young, High Value Horticulture and Sparks Commodities. Marketing services are provided by SRD Research and Development Group, Inc.

PREFACE

This report is based on a study carried out by Chris Whittle, over the period February 4 - 19, 1993. Mr Whittle, an airfreight specialist, was engaged for this assignment by ISTI through its subcontract with High Value Horticulture, PLC.

The report emphasizes the need to attract a private freight forwarder who would concentrate on expanding perishable exports. It points out that air freight rates for perishables, which have not been adjusted in dollar terms since 1990, should not be lowered as this would be a disincentive to existing carriers and to the entry of new ones. The result encourages sea freighting as this is how large volumes are shifted and developing, for air freight services, perishables which are of high value.

The key elements of an action plan are included. These cover:

- tackling the immediate problems of servicing the Maldive export market by air and sea cargo facilities,

- examining the options and opportunities for increasing air cargo capacity (including that the export sector is able to take full advantage of the increase in capacity expected in May, 1994, with the bringing on line of the first Air Lanka A340),

- designing a system, probably centered on a private freight forwarder, which can build the perishable export trade and actively seek additional air cargo space (this is a critical element and Government support should be in place should the program require it for specific activities),

- establishing the true opportunities for switching suitable cargo on to seafreight, and

- ensuring that the necessary support services are in place at the airport (to include identifying how the proposed cool storage facilities at the airport can be funded, managed and marketed).

The assistance of exporters/freight forwarders, airline representatives and Government officials is recognised. The cooperation of Air Lanka is especially noted.

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1. SUMMARY OF MAIN POINTS

Cargo Volumes

Katunayake airport annually handles some 50,000 tonnes of air freight which represents a small cargo market.

Currently some 28,500 tonnes of products are exported by air from Sri Lanka. Garments and general cargo amount to over 50% of this total and 70% of these commodities are destined for Europe. Over 85% of airfreighted food products are destined for the Middle East and Maldive markets. Live fish exports are principally destined for the Far East (75%) and Europe (25%). The majority of floriculture exports are routed to Europe and particularly Amsterdam (70%). Betel leaves account for 10% of total exports and are flown to Pakistan.

Airfreight Exports by Commodity and Region April 1991 to March 1992

Commodity Group	Indian Sub Cont	Far East	Middle East	Europe	Australia	Total	% Total
Foodstuff	3369	448	3816	564	8	8205	29
Betel Leaves	2754	0	76	0	0	2830	10
Live Edible Fish	1	801	24	285	1	1112	4
Flowers/ Foliage	1	110	34	180	15	340	1
Plants	11	42	159	725	0	937	3
Garments on Hangers	0	312	272	80	0	664	2
Garments	28	3915	2575	1929	30	8477	30
General Cargo	808	1941	1162	1982	103	5996	21
Total 1991/92	6972	7569	8118	5745	157	28561	100
Total 1990/91	6363	5859	6586	5083	111	24002	
% Increase 1991/92	10%	29%	23%	13%	41%	19%	

Currently very little of Sri Lanka's perishable exports are transported to either Europe or the Far East. A far greater proportion of floricultural and live fish exports are destined for these more distant markets.

Cargo Capacity

Air Lanka is the dominant carrier of perishable products carrying 65% of foodstuffs, 60% of live fish and 82% of floricultural products. Other carriers take a greater proportion of the higher yielding products i.e. general cargo 66% and garments circa 70%.

In general cargo capacities are fully utilised. Shortfalls in cargo demand occur in March, April and May.

Of the 24 tonnes per week of cargo going to the specified European cities, i.e., Amsterdam and London, Air Lanka's capacity amounts to 75%. The weekly capacity to Dubai is 47 tonnes of which Air Lanka can lift 57%. Air Lanka account for all the 12 tonnes capacity lifted to Hong Kong but only 20% of the 70 tonne capacity lifted to Singapore. Currently the total weekly cargo capacity to these destination amounts to 150 tonnes per week (equivalent to 8,000 tonnes per year).

Export Airfreight Capacity from Colombo to Specified Destinations

Destination	Airline	Tonnes per week
Amsterdam	Air Lanka	6
	KLM	6
London	Air Lanka	12
Dubai	Air Lanka	27
	Emirates	20
Hong Kong	Air Lanka	12
Singapore	Air Lanka	15
	Air France	3
	Emirates	12
	Singapore A/L	40

Freight Rates

Air cargo rates are easily the single greatest unit cost for perishable exports. They often amount to between 50 and 70% of landed cost. For airfreighted cargo these rates are the most critical component in cost competitiveness for an export country.

Typical Cargo Airfreighted Rates (in US$/kilo) from Colombo

	Europe Amsterdam	Middle East Dubai	SE Asia Hong Kong
General cargo	2.20	1.10	1.10
Garments	2.20	1.10	1.10
Live fish	2.37	1.54	1.59
Fruit and vegetables	1.24	0.82	0.99
Floriculture	1.54	N/A	1.24

The table below sets out typical rates for fruit and vegetables from alternative and competing sources.

Fruit and Vegetable Commodity Rates

	N. Europe	Middle East	S.E. Asia
Colombo	1.24	0.82	0.99
Kenya	1.57	1.33	N/A
India	1.35	0.69 - 0.84	0.85
Ghana/Lagos	0.72 - 0.80	N/A	N/A
Bangkok	2.00 - 2.50	2.38	0.44
Cairo	0.90	N/A	N/A
Jamaica	0.80	N/A	N/A
Guatemala	1.80	N/A	N/A
Zimbabwe	1.60 - 1.75	N/A	N/A
Sydney	2.57	2.07	0.78 - 0.91

As the table indicates the Sri Lankan commodity rates for perishable products are in line with, and possibly below, those of countries with similar flying distances. Nevertheless West Africa, North Africa and the Caribbean all have significantly cheaper air cargo rates. Countries such as Thailand, Kenya and Zimbabwe with airfreight rates of over $1.20 per kilo have continued to expand and develop their businesses. This growth is achieved by focusing on products with extremely high unit values e.g. baby corn, asparagus, mangetout, extra fine beans and by diversifying into floricultural products.

Air Lanka

Air Lanka is the major cargo supplier and services more destinations than any other carrier. The air line's major focus is that of a passenger carrier. Cargo revenues account for just over 10% of total revenue. Air Lanka stands about 50th in the ARTA lead table of leading cargo carriers.

Air Lanka's long haul flights (i.e., over 3 hours flying time) are all flown by Tristars. Of all the long haul wide bodied aircrafts available Tristar has the lowest cargo capacity (i.e. 8 tonnes verses 15 tonnes for 747s and 12 tonnes for DC10s). The aircraft are operated on tight schedules with high utilisation (12.3 hours per day as against 9.3 hours for Air India's 747s). Different versions of the Tristars are flown with various cargo capacities. As a result the cargo capacity on any service varies in accordance with which airplane is used. Inconsistent volumes make planning and orderly exporting difficult. As a result of the tight scheduling any aircraft breakdowns have ramifications throughout Air Lanka's services and contribute to the airline's poor punctuality record. The Tristar fleet is not modern and plans are in place to re-equip.

The management of Air Lanka's cargo operations is experienced and high quality. The booking of air cargo space is carried out manually and the company does not use Electronic Data Interchange (EDI). Automation would facilitate the work of the cargo division and in particular improve the operation of transhipments. Air Lanka operates perishable space by booking one week in advance. This is normal practice and the systems operates relatively smoothly with the major horticultural export companies. Typically problems occur with the small scale and ad hoc exporters. Air Lanka have in place contingency plans in the event of off-load. Perishable products are given priority.

Air Lanka is the monopoly cargo handler. Although no other airline seriously criticized Air Lanka's performance, most agreed that competition from another cargo handler would probably benefit the system.

Air Lanka was established in 1979 and only registered its first profit in 1990. It is not a cash rich company. After consultation, Air Lanka sets the air cargo tariffs to which other air lines adhere. The company does not discount rates but offers over-riding commissions to freight forwarders as their incentive programme. Air Lanka claim to have a genuine commitment to servicing all exporters in all sectors. They are expecting the garment sector to decline and have therefore attempted to work with a broad base of other industries, such as exporters of perishable products.

Other Airlines

Singapore Air Lines is an important distributor with a 40 tonne capacity per week and is willing to carry perishables to Singapore. However, the company is unwilling to tranship Sri Lankan perishable produce from Singapore onward because higher rates can be obtained for other products and from other destinations. Singapore Airlines is most interested in carrying high yielding traffic such as fish, garments and general commodities.

A weekly 747 freighter is run by Korean Airlines to Seoul. They are primarily interested only in garment traffic for onward shipment to the USA.

Gulf Air carries significant volumes of perishable produce to the Middle East and are committed to the trade in the belief that the high density of vegetables offsets the low cargo rates.

Emirates Air carry few perishables, preferring to concentrate on higher yielding cargoes.

KLM carries over 2,700 tonnes of Betel leaf to Karachi, Pakistan from where they lift high yielding cargoes on to Europe. In April this service will change and KLM will route via Muscat, Oman. The new routing is expected to provide additional cargo space from Colombo and will particularly benefit the floriculture sector. This change in routing will create a serious problem for the Betel leaf exporters unless Air Lanka and/or PIA can accommodate this high value export crop.

There are no restrictions on charter flights lifting freight out of Sri Lanka. Any increase in tourism will expand cargo capacity. Typically charter companies wholesale their freight capacity to freight forwarders who will in turn retail the cargo capacity particularly to the high yielding freight commodities.

LTU fly three times a week to Germany. The cargo space is marketed by a freight forwarder and is almost exclusively utilised by the garment industry and for general cargo. This service probably provides the greatest single cargo capacity to Europe.

There are currently no cargo charters operating in Sri Lanka. Cargolux tested the market in December 1992 with flights to Luxembourg and Abu Dhabi. Cargolux were invited into Sri Lanka by Air Lanka who agreed to purchase 50% of Cargolux's cargo capacity as an encouragement. Cargolux claim that the onward transport arrangements from Luxembourg were problematic. It is believed that Cargolux may start again in March/April 1993.

Principal Problems

Existing exporters identify the principal problem as airfreight capacity to supply perishable products to the Maldives. Most problems have occurred with small adhoc exporters who cannot match the disciplines of being able to commit a week in advance to specific cargo space requirements. Whilst most exporters will argue for cheaper cargo rates the major companies acknowledge that cargo rates are not out of line with similarly located suppliers.

Air Lanka's long haul fleet of Tristars have both a low cargo capacity and because of the variants flown also have variable capacity. This lack of defined capacity undermines orderly and reliable exporting. Foreign services are relatively infrequent. Off-loaded product may wait two or three days for the next flight, seriously detracting produce freshness.

The airport currently has no cool rooms available for fresh produce. There are three 40' reefer containers but these have not been utilised. It is planned that the new Terminal 2 will have cool rooms. Although these are generally considered to be "a good thing" there has so far been no rigorous analysis as to the cost of these facilities, how they will be managed and how they will be paid for.

In global terms Sri Lanka is a relatively small market for air cargo. Air cargo rates for perishable produce are not sufficiently high to be attractive to airlines, nor can the low commodity rates be currently offset against guaranteed volumes. Producers and exporters will not seek new markets and lift their volumes unless the cargo space is available and the rates are competitive. Sri Lanka's geographical location means that it cannot be a low cost supplier to Europe, where as West African and Caribbean suppliers will always have cheaper air freight rates because of shorter flying distances, the existence of backhauls and greater volumes of passenger traffic. In general the higher priced markets in South East Asia, particularly Japan and Hong Kong, are likely to be supplied by regional suppliers such as China, Thailand, Indonesia with cheaper transport costs. The Middle East is a relatively small market where Sri Lanka will compete directly against India. In global terms Sri Lanka will have cargo rates in the medium to high range. Products which can justify these rates have to be high quality, typically perishable (or they would be sea freighted) and with high unit prices. High unit priced products, almost by definition are low volume products.

2. RECOMMENDATIONS AND ACTION PLAN

2.1 Not Lowering Air Cargo Commodity Rates

In view of Sri Lanka's location and the size of its cargo market, the air cargo rates for perishable products are competitive with other countries. Lowering the rates would make shipping perishable products even more unattractive for cargo suppliers and make it difficult to attract in new services. We recommend that no attempt is made to lower commodity rates for perishable products. Sri Lanka has to remain a medium to high cost supplier to the European and South East Asian markets.

The emphasis should be on attracting more cargo capacity. Additional capacity may, in turn, bring downward pressure on rates.

2.2 Supplying the Maldives

Air Lanka in effort to relieve the pressure on the limited 737 cargo capacity to Male occasionally substitute a Tristar on this service at considerable cost. Flying Cargo are planning to introduce a service to Male using an AN12 which will lift 20 tonnes of produce. The start of the service has been delayed and it is not confirmed that the service will definitely start. We suspect that this is a speculative venture. The low tariffs and one way traffic make it difficult to operate a profitable service.

In the longer term it will be to the benefit of both countries if a fast, regular, reliable refrigerated shipping service can be operated. Rapid clearance and onward distribution of perishable product to tourist resorts needs to be facilitated. The practicability and financial viability of such a service needs to be properly investigated.

2.3 Marketing the Added Cargo Capacity on the new A340

About 40% of the world's air freighted horticultural produce is carried in specialist cargo planes.

In 1990 Air Lanka leased a 707 freighter. The export sector did not, or could not, provide the necessary volume of cargo on the nine services operated and the scheme was abandoned as unprofitable.

Given Sri Lanka's location and small cargo market we believe that a dedicated cargo service based in the Island would have difficulty operating profitably. Air Lanka have in the past attracted in specialist cargo services by committing themselves to taking a proportion of the air freight capacity. Other air cargo companies could be attracted into Colombo if such a service can be fitted conveniently into their existing schedules.

Air Lanka are seriously considering having a $10 million cargo conversion carried out on one of their Tristars. The plane would be capable of lifting 65 tonnes. This single plane could carry 34,000 tonnes of freight per year and therefore increase cargo capacity at Katunayake by over 60%. We believe that Sri Lanka is unlikely to be able to fully utilise such a dramatic increase in cargo capacity. We have serious concern whether such a service would be financially viable, particularly in the short term.

Air Lanka are hoping to replace their Tristar fleet with A 340s. The first plane is due May 1994 and is expected to be used for a non-stop service to Europe, probably to London with four services per week. The exact cargo capacity is unknown but is likely to be in the range of 10 to 18 tonnes per shipment. This will increase annual cargo capacity to London four fold to about 3000 tonnes, an increase in total airfreight export capacity of A 340 aircraft, probably at yearly intervals. This investment programme would lift cargo capacity by about 50% but the costs are expected to severely test Air Lanka's resources. Nevertheless, the introduction of the first A 340 provides an ideal opportunity for the additional cargo space to be marketed in advance. The lead times are sufficient for exporters to programme production to match opportunities at the intended destination.

2.4 Increasing Tourist Passenger Services to Increase Cargo Capacity

Passenger airplanes carry about 60% of the air freighted horticultural produce.

As Sri Lanka is typically a tourist market passenger, charter flights play an especially important role. Although there are some difficulties in utilising their cargo space, additional services will provide greater capacity particularly during the winter months. The need is for a freight forwarder who can wholesale the capacity to the perishable sector. Additional cargo space will be linked to expansion in the tourist trade.

2.5 Using New Freight Forwarder

The expansion of air cargo capacity and its utilisation by the perishable export sector needs a focus. It will require an organisation which will actively seek new air cargo services, improve communication between the export sector and the providers of air freight and whose financial viability is inextricable linked to the amount of freight exported.

The rapid expansion of both Ghanaian and Zimbabwean horticultural exporter sectors has been underpinned by the activities of a dynamic, freight forwarding company. They actively sort out charter and other cargo services to match the increase in export output. The freight forward consolidates loads to fill committed air space, imposed discipline on exporters and acted as an interface between the exporters and the suppliers of air cargo. In Sri Lanka a freight forwarder could:

* market the additional cargo capacity before it comes on stream with the new A 340s,

* actively set out to attract additional air cargo services into Sri Lanka,

* fully exploit any additional cargo capacity brought by passenger charter services.

The presence of such a company would:

* act as a focus where the necessary critical mass of export volume can be built from the disparate export companies,

* be able to anticipate the expansion in demand for air cargo space and work with the air cargo suppliers to satisfy that demand,

* give the necessary confidence to possible new investors in perishable export operations,

* provide the vital channel of communication between exporters and the cargo sector.

We would recommend that a freight forwarder with suitable track record who is acceptable to both the major exporters and the cargo suppliers be identified and a clear mode of action be agreed between them and the players in the sector. At some point it may be necessary for the Government to make a clear commitment to underwrite a new service for short period whilst the volume is built up to commercial levels.

2.6 Constructing Cool Storage at New Terminal

It is planned to construct cool storage facilities at the new terminal and possibly also install oxygenated fish tanks. It is understood that no company has committed itself to installing and running these facilities. The practical realities of who will pay for the capital costs of the equipment, what utilisation is expected, how exporters will be charged for its use and how the system will be managed have not been thought through. A feasibility study needs to be carried out and commitments made by the interested companies.

2.7 Encouraging the Seafreight of Suitable Products

The pressure on air cargo space will be relieved if suitable products are diverted on to seafreight. The bulk of intentional horticultural product is transported by sea using refrigeration. Support should be given to pioneering the sea freighting of produce.

One third of all the export cargo space is taken up with garments. Air is only used when orders lag behind delivery schedule, or to meet unexpected demand. As the industry becomes more professional the proportion air freighted should decline.

2.8 Improving Cargo Operational Procedures

Air Lanka should review procedures for advising shippers of perishable goods of aircraft substitution or major delays, to ensure that, wherever possible, sufficient notice is given. Also, the exporters, working with Air Lanka and the foreign airlines, should seek to plan requirements in line with known peaks and troughs in available air cargo capacity.

2.9 Action Plan

The key next steps to be taken to develop long term increased air freight capacity for perishables are:

1. Present and obtain support for the concept of a specialist freight forwarder agency to work on behalf of the industry.

2. Design the method of operation of the freight forwarder and especially its mode of interaction between exporters, cargo suppliers and the Government and its agencies. The freight forwarder, would build the perishable export trade and actively seek additional air space. Government support should be in place should the programme require it for specific activities.

   Components of this work will need to examine and specify:

   * options whether to use an existing company or whether a new company needs to be established, possibly with investment from the major export companies,

   * the exact level and nature of Government assistance to the perishable export sector,

   * opportunities for attracting in new cargo services and for exploiting existing destinations,

   * agreement with Air Lanka on advance warning of additional air space, and commitment on space for perishables.

3. Investigate the true opportunities for increasing sea freighted exports and particularly perishable products. This study will need to examine:

   * the constraints on the uptake of refrigerated sea freight in terms of facilities at Colombo port and shipping services available facilities at the destinations,

   * the research and development programmes under way into refrigerated shipping and methods of involving perishable export companies,

   * the level of technical knowledge amongst the perishable export sector on sea-freighting,

   * the feasibility of establishing a sea freighted service to the Maldives for food products,

   * opportunities for increasing the proportion of sea freighted garment exports,

4. Do the detailed design and feasibility study of how the proposed cold store facilities at the airport can be funded managed, marketed to the industry and what level of utilisation is likely to be achieved. The obective is to ensure that the necessary support services are in place at the airport.

5. Prepare for the new A340. If a perishable freight forwarding operation can be established one of its first activities will be undertaking the necessary planning an co-ordination so that the perishable sector can take full advantage of the first A 340 as it comes into service in May 1994. This will involve:

* understanding the true capabilities of the plane and the markets which will be services,

* alerting the exporters of the additional space in advance and its destination,

* ideally obtaining a commitment for a portion of the cargo space specifically for perishable products,

* having in place a system for underwriting space not fully utilised during the start up phase by the Government,

* liaison with the exporters so as to ensure that supply of product will match space committed.

3. THE DEMAND FOR AIR FREIGHT FROM SRI LANKA

3.1. Sri Lanka's External Trade

The single source of information used to report Sri Lanka's external trade performance is Sri Lanka Customs. It is known that Customs' reporting of export quantities are generally understated. However, export F.O.B. values are regarded as accurate.

Attachment 1 details the annual growth in export volume, for the period 1985-1991, of those products considered most likely to require, in varying degrees, transportation by air. These products are :

- "minor" agricultural products : (comprising vegetables, fresh and dried fruits (excluding coconuts), arecanuts, coffee, pepper, cinnamon, cloves, nutmeg & mace, cardamoms, sesame seeds, betel leaves, cocoa products, essential oils, cashew nuts and other minor agricultural crops)
- textiles and garments
- industrial products (excluding petroleum products).

Since 1989, the annual growth in export volume of textiles and garments and other industrial products has been at a faster rate than for minor agricultural products.

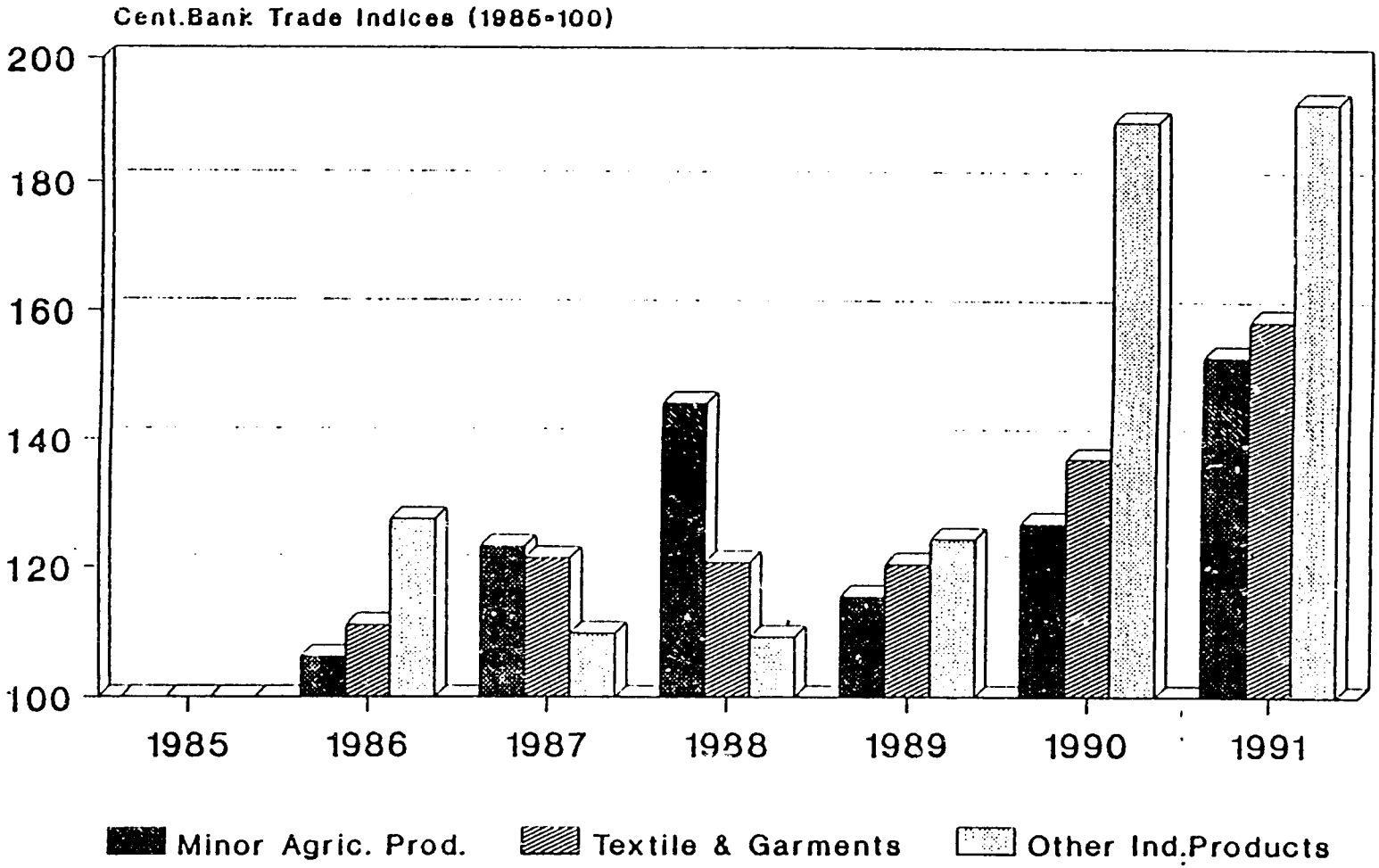
The export volume and value of vegetables and fresh and dried fruits for the first six months of 1992 were well down on the same period the preceding year.

Table 1 Export Volume and Value : Vegetables, Fresh & Dried Fruit (excl. coconuts)

	January - June 1992		January - June 1991		% Change 1992 v 1991	
	Volume (Tonnes)	Value (Rs Mn)	Volume (Tonnes)	Value (Rs Mn)	Volume	Value
Vegetables	2891.7	79.8	4199.7	112.5	- 31%	- 29%
Fresh & Dried Fruit	2319.9	40.0	3811.1	44.8	- 39%	- 11%

Source : Customs, Sri Lanka

Sri Lanka - External Trade
By Volume - 1985-1991



Source : Central Bank of Sri Lanka
Annual Report - 1991

Export earnings, by "air eligible" categories, for the period January to June 1992 are detailed in Table 2 below.

Table 2 Export Earnings By "Air Eligible" Categories (January-June 1992)

Category	Rupees (Million)		% Increase 1992 v 1991
	Jan-Jun 1992	Jan-Jun 1991	
Textiles & Garments	21999.8	15241.7	44%
Industrial Exports (excl.Textiles & Garments, Petroleum Products)	8254.8	6843.1	21%
Minor Agricultural Products Of which : Vegetables,Fresh & Dried Fruit	1906.8 119.8	446.8 157.3	2% -24%
Total Air Eligible Products	32161.4	23531.6	37%

Source : Customs, Sri Lanka

The table illustrates the continuing increase in demand for air freight capacity, across all air eligible categories.

3.2. Exporting by Air Freight

Exporting efficiently by air is an important requirement of the Sri Lanka economy, particularly for perishable products. Attachment 2 illustrates the incidence of using air freight for transporting sample perishable items. The live fish and fresh cut flowers sectors are wholly dependent upon air freight. Generally, fruits and vegetables require the speed of air freight to avoid spoilage.

This is contrasted with the penetration achieved by air freight in the garments sector, where air is generally only used where orders lag behind delivery schedule, or to meet unexpected demand quickly.

3.3. Exports of Perishable Items, 1990 - 1992

Attachment 3 summarises the total export volume and value of live fish, edible and frozen fish, cuttings, fresh cut flowers, plants, foliage, vegetables, edible fruits and nuts for years 1990, 1991 and January - June 1992. Exports of live fish, plants and foliage are the only products which have shown consistent growth over the 1990 - 1992 period. Attachment 4 summarises exports of these commodity groups to the target destination countries, United Arab Emirates, USA, UK, Netherlands, Hong Kong and Singapore, for years 1990, 1991 and January - September 1992.

A detailed breakdown of products, defined by six digit harmonised commodity code is given in Appendix 2.

Air Freight Penetration of Sample Perishable Commodities and Garment Traffic

Harmonised Code No.	Description	Total Exports Jan-Dec 1991		Exports By Air Jan-Dec 1991		Air Freight Penetration (%)	
		Quantity (Tonnes)	Value (LKR000s)	Quantity (Tonnes)	Value (LKR000s)	By Quantity	By Value
030110	Ornamental Fish	98.1	43797	98.1	43797	100.0%	100.0%
030199	Live Fish - Other	97.8	49108	97.8	49108	100.0%	100.0%
060120	Bulbs, Tubers, Corms	106.0	20044	106.0	20044	100.0%	100.0%
060210	Unrooted Cuttings	215.0	48641	197.0	47702	91.6%	98.1%
060310	Fresh Cut Flowers	145.5	29720	145.5	29720	100.0%	100.0%
060491	Fresh Foliage	365.7	34508	215.4	29952	58.9%	86.8%
060499	Other Foliage, Branches	182.1	40851	177.1	40719	97.3%	99.7%
070390	Leeks & Other Alliaceous Veg.	626.5	16461	626.5	18459	100.0%	100.0%
070960	Capsicum	522.6	12310	522.0	12169	99.9%	98.9%
070990	Other Vegetables	1533.5	142525	1526.0	141981	99.5%	99.6%
08011001	Fresh Coconuts	24434.3	152315	105.9	1333	0.4%	0.9%
080430	Pineapples	823.7	21894	513.5	14663	62.3%	67.0%
081090	Other Fruit	452.1	13138	431.1	12228	95.4%	93.1%
		(Numbers)		(Numbers)			
620339	Articles of Apparel or Clothing-Men	1800684	908195	177894	66232	9.9%	7.3%
620349	Articles of Apparel or Clothing-Men	3771741	765580	326344	63465	8.7%	8.3%
620462	Cotton Apparel or Clothing - Women	5429646	1165902	1259591	250897	23.2%	21.5%
620520	Men or Boy's Shirts - Cotton	10251762	1969270	1242550	258492	12.1%	13.1%
62064u	Women or Girls' Blouses-Man-made	10347622	2486883	3548214	848004	34.3%	34.1%
620690	Women or Girls' Blouses-Other Mat'ls	4675884	818942	667680	125305	14.3%	15.3%

Source : Customs, Sri Lanka

Exports of Perishable Products from Sri Lanka
1990, 1991, January - June 1992

Code	Description	1990			1991			January - June 1992		
		Quantity (Tonnes)	Value (LKR000's)	Value - LKR/Kilo	Quantity (Tonnes)	Value (LKR000's)	Value - LKR/Kilo	Quantity (Tonnes)	Value (LKR000's)	Value - LKR/Kilo
0301	Live Fish	200	96117	481	200	93655	468	121	73739	609
0302	Fresh or Chilled Fish	69	4212	61	19	1236	65	16	445	28
0303	Frozen Fish	155	7364	48	353	43805	124	1	221	221
0304	Fish Fillets,Fish Meat,Fresh/Chilled	68	12432	183	1	15	15	0	4	0
0306	Crustaceans	2192	691729	316	1524	648542	426	1031	385534	374
03	Total	2684	811854	302	2097	787253	375	1169	459943	393
0601	Bulbs, Tubers, Tuberous Roots	69	7571	110	112	20763	185	55	10077	183
0602	Other Live Plants	341	91989	270	583	132917	228	348	64336	185
0603	Cut Flowers and Flower Buds	150	31043	207	190	32320	170	26	10513	404
0604	Foliage,Branches,Other Parts of Plants	280	60336	215	561	77797	139	330	59507	180
06	Total	840	190939	227	1446	263797	182	759	144433	190
07	Edible Vegetables	15456	401096	26	11366	405445	36	4182	117823	28
0801,0802	Coconuts and Other Nuts	79561	1909510	24	75415	2083628	28	39207	1374045	35
0803-0810	Fresh Fruit	1577	43693	28	1414	42136	30	1028	27249	27
0811-0814	Frozen,Preserved,Dried Fruit	846	7710	9	3507	27563	8	1291	12774	10
08	Edible Fruit and Nuts	81984	1960913	24	80336	2153327	27	41526	1414068	34

Source : Customs, Sri Lanka

Attachment :

3.4. Commodities Flown From Katunayake Airport

Air Lanka are the only cargo handling company at Katunayake, and therefore the only source of information on commodities flown from the airport. Air Lanka provided details of eight export commodity groupings, by region of destination for the period April 1991 to March 1992, and the previous year. The details are shown below in table 3.

Table 3. Air Freight Exports By Commodity/Region, April 1991 - March 1992

Commodity Group	Indian Sub-Cont.	Far East	Middle East	Europe	Australia	Total	% Total
Foodstuff	3369	448	3816	564	8	8205	29
Betel Leaves	2754	0	76	0	0	2830	10
Live, Edible Fish	1	801	24	285	1	1112	4
Flowers/Foliage	1	110	34	180	15	340	1
Plants	11	42	159	725	0	937	3
Garments on Hangers	0	312	272	80	0	664	2
Garments	28	3915	2575	1929	30	8477	30
General Cargo	808	1941	1162	1982	103	5996	21
Total 1991/92 Total 1990/91 % Increase '91/'92	6972 6363 10%	7569 5859 29%	8118 6586 23%	5745 5083 13%	157 111 41%	28561 24002 19%	100

Source : Air Lanka
Note : Air Lanka did not provide information on commodities exported by air for individual routes.

The Region shown as destination is not necessarily the true one, as the information used to produce the table was taken from the flight cargo manifests to first point of landing only. This may not be final destination.

The table highlights the dominance of export of foodstuffs to the Maldives and the Middle East, betel leaves to Pakistan and garment traffic to all regions except the Indian Sub-Continent and Australia. Live fish exports were greatest to both the Far East and Europe, some of this traffic being destined for the USA, via either Far Eastern or European gateway airports. There was an increase in air freight exports of 19% over the previous year, with strong growth recorded to the Far East and the Middle East.

Exports of Perishable Products from Sri Lanka to Target Destinations Years 1990, 1991 and January - September 1992.

Country	Harmonised Commodity Code	1990			1991			January - September 1992		
		Quantity (Tonnes)	Value (LKR000's)	Value - LKR/Kilo	Quantity (Tonnes)	Value (LKR000's)	Value - LKR/Kilo	Quantity (Tonnes)	Value (LKR000's)	Value - LKR/Kilo
United Arab Emirates	03	9	1623	180	12	1756	146	11	2233	203
	06	43	7818	182	24	4293	179	14	1709	122
	07	728	14384	20	1013	25848	26	790	25060	32
	08	8140	176441	22	10096	260078	26	8747	254019	29
USA	03	370	119270	322	172	103007	599	162	91309	564
	06	2	451	226	2	321	161	1	687	687
	07	1516	42709	28	713	22942	32	604	14617	24
	08	365	13950	38	559	16712	30	563	24768	44
UK	03	35	10555	302	46	12211	265	60	12091	202
	06	13	3409	262	20	5208	260	21	6958	331
	07	1309	26990	21	2434	43210	18	947	22865	24
	08	11183	247485	22	7059	139470	20	5052	134373	27
Netherlands	03	247	59708	242	65	27460	422	131	49096	375
	06	207	70456	340	502	99167	198	480	83910	175
	07	540	16032	30	291	9362	32	197	6235	32
	08	7962	214594	27	5293	172855	33	5017	208271	42
Hong Kong	03	52	34676	667	61	46897	769	58	36460	629
	06	21	7667	365	67	7914	118	11	4253	387
	07	1	40	40	0	0	0	3	2786	929
	08	4	627	157	8	1332	167	23	4321	188
Singapore	03	404	89217	221	617	117227	190	1139	208770	183
	06	33	6893	209	81	18255	225	60	12535	209
	07	44	7051	160	7	213	30	4	754	189
	08	117	2740	23	180	6178	34	85	2710	32

Note :

03 = Aquarium Fish, Fresh and Frozen Fish, Crustaceans
06 = Bulbs, Plants, Flowers, Foliage
07 = Edible Vegetables
08 = Edible Fruits and Nuts

Source : EDB/ Customs, Sri Lanka

Air Lanka's share of exports flown from Katunayake, by commodity grouping, is shown in table 4 below :

Table 4. Air Lanka's Share of Commodities Flown From Katunayake Airport

Commodity Grouping	Air Lanka	Other Airlines
Foodstuffs	65%	35%
Betel Leaves	0.5%	99.5%
Live/Edible Fish	60%	40%
Flowers/Foliage	82%	18%
Garments On Hangers	39%	61%
Garments	23%	77%
Plants	80%	20%
General Cargo	34%	66%

Source : Air Lanka

The table confirms Air Lanka as the prime mover of perishable freight from Katunayake. The betel leaf traffic is flown almost entirely by KLM to Karachi. Gulf Air were the only airline interviewed that admitted to carrying significant amounts of fruits and vegetables traffic.

3.5. Exports by Sea Freight

Sea freight, because of long transit times and insufficient quantities available, is not widely used for the export of perishable goods. The only agricultural products moved in significant quantities during 1991 were betel nuts, primarily to Pakistan and gherkins to the UK and other European countries and Australia. Some live plants shipments were made to Europe, Japan and the Far East. There were also shipments of frozen fish to the Far East.

Garment traffic is the second largest commodity shipped by sea from Sri Lanka. A total of 294,000 freight tons were exported by sea in 1991, an increase of 12% over the previous year. The main destinations in 1991 were the USA, accounting for 60% of total traffic, Europe 33%, with the rest of the world accounting for 7%. There are sea-air services being offered from Colombo, by sea to the Gulf ports thence by air to Europe and the USA. Currently some garment traffic is being exported by this method.

3.6. Forecast Demand For Exports of Perishable Items, 1993 - 2000

No forecasts have been produced by the Export Development Board for the period up to year 2000. The current National Export Development Plan covers the period 1990-1994. Targets for perishable commodities for 1990 - 1994 are shown below:

Table 5. Sectoral Export Targets, 1990-1994 (in constant 1989 LKR Millions)

	1989 Actual	1990	1991	1992	1993	1994	Av. Annual Growth %
Fruits & Vegetables	314.6	377.8	453.7	544.8	654.3	785.7	20.1
Flowers & Foliage	145.1	181.2	226.3	282.6	352.8	440.6	24.9
Aquarium Fish	74.0	92.3	115.3	143.7	179.4	223.8	24.8
Edible Fish	606.3	674.1	750.7	837.3	935.2	1046.2	15.3
Garments	16888.2	18254.1	19797.9	21566.0	23623.1	26060.5	9.1
Manufactures	5536.4	6496.5	7683.8	9206.1	11088.2	13525.3	19.6

Source : Export Development Board, National Export Development Plan 1990-1994.

Such strong forecast growth rates, across all sectors, will put considerable pressure upon existing air freight capacity.

4. THE SUPPLY OF AIR FREIGHT CAPACITY FROM SRI LANKA

4.1. Air Lanka - Background

Air Lanka is a Company substantially owned by the Government of Sri Lanka. The Government is very keen to promote exports, and Air Lanka are viewed as a vital link between exporters and overseas markets.

Air Lanka are the major suppliers of air freight capacity from Sri Lanka. All services are operated from Colombo (Katunayake) Airport. Attachment 5 details Air Lanka's share of air freight and mail traffic at the airport. Air Lanka are carrying around 50% of the total combined air exports and imports.

Attachment 6 details Air Lanka's export freight and mail traffic by destination for years 1991 and 1992. Export freight traffic to Male accounted for 23.4% of total in 1992.

During the financial year 1 April 1991 - 31 March 1992, Air Lanka's revenue from the carriage of freight was Rs 1063.34 million and from mail Rs 83.15 million, which, when combined, was 11.1% of total operating revenue. Compared with the previous financial year, freight traffic increased by 14.5% and combined freight and mail revenue by 23.4%.

In calendar year 1991, Air Lanka were listed as number 50 in the top 50 IATA Members' ranking of international scheduled freight tonnes carried. Air Lanka's total of 24,000 tonnes compares with Thai Airways, 199,000 tonnes, ranked 11th, Malaysian Airline System, 172,000 tonnes, ranked 14th, Qantas, 164,000 tonnes, ranked 16th and Air India, 67,000 tonnes, ranked 30th.

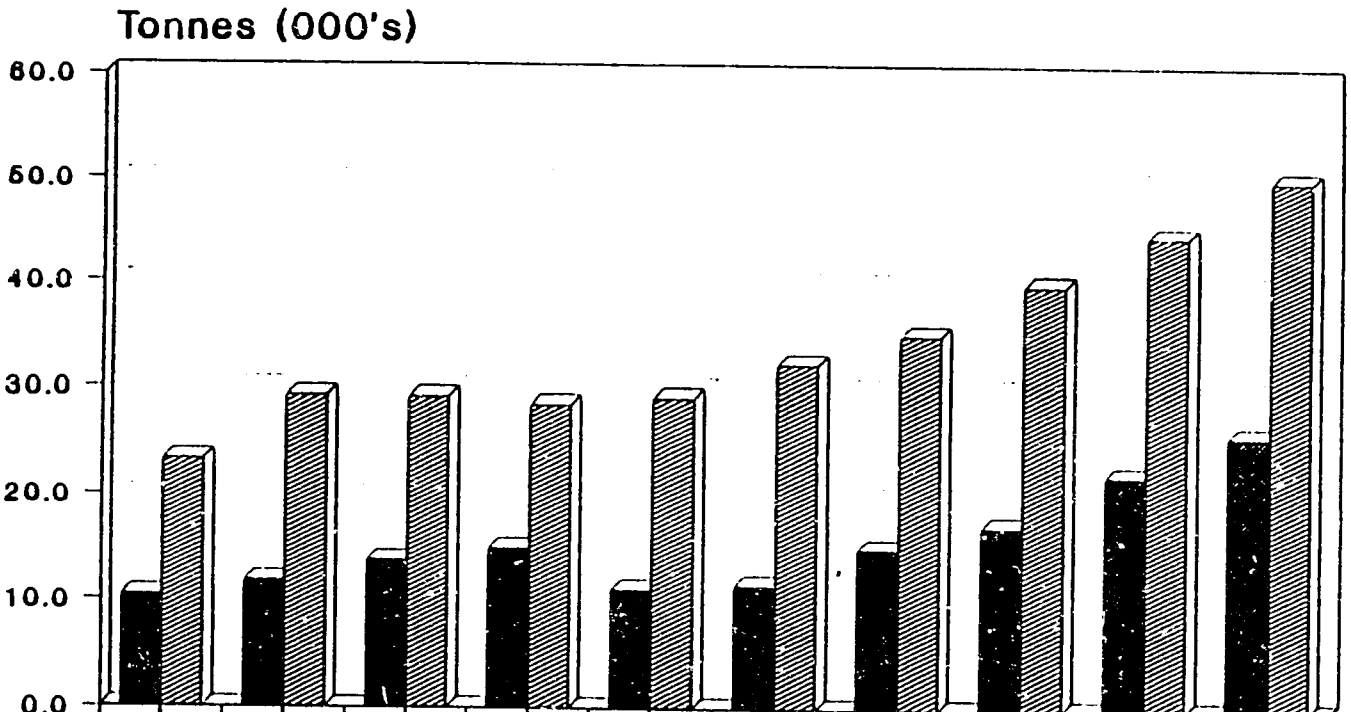
4.2. Air Lanka - Cargo Organisation

Air Lanka does not have a separate cargo division. The Manager, Cargo Development and Cargo Services Manager are responsible to the Chief Marketing Officer. These two key managerial positions in Air Lanka Cargo are held by people with extensive knowledge and experience of the air cargo industry, both with Air Lanka and other airlines.

Air Freight & Mail Traffic at Katunayake

Air Lanka and Total

1983-1992



	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Air Lanka	10.4	11.8	13.8	15.0	11.0	11.5	15.0	17.2	22.1	25.8
Total Frt & Mail	23.3	29.2	29.1	28.4	29.1	32.2	35.0	39.8	44.6	50.1

Air Lanka Total Frt & Mail

Source : Air Lanka / AASL

Export Air Freight and Mail Traffic by Air Lanka by Destination 1991 & 1992

Freight& Mail (Tonnes)	1991 Freight	% Total	1991 Mail	% Total	1992 Freight	% Total	1992 Mail	% Total
Male	3440	28.1%	19	7.8%	3594	23.4%	19	7.6%
Madras	72	0.6%	13	5.3%	72	0.5%	13	5.2%
Tiruchirapalli	2	0.0%	0	0.0%	3	0.0%	0	0.0%
Trivandrum	11	0.1%	1	0.4%	14	0.1%	0	0.0%
Bombay	34	0.3%	1	0.4%	28	0.2%	0	0.0%
Karachi	118	1.0%	3	1.2%	143	0.9%	3	1.2%
Indian Sub-Continent	3677	30.1%	37	15.2%	3854	25.1%	35	13.9%
Bahrain	277	2.3%	1	0.4%	241	1.6%	1	0.4%
Dubai	710	5.8%	25	10.3%	867	5.6%	22	8.8%
Abu Dhabi	57	0.5%	3	1.2%	83	0.5%	2	0.8%
Muscat	293	2.4%	3	1.2%	268	1.7%	7	2.8%
Dhahran	24	0.2%	2	0.8%	33	0.2%	2	0.8%
Riyadh	446	3.6%	1	0.4%	353	2.3%	2	0.8%
Kuwait	130	1.1%	1	0.4%	344	2.2%	11	4.4%
Jeddah	60	0.5%	0	0.0%	187	1.2%	2	0.8%
Doha	1	0.0%	0	0.0%	50	0.3%	1	0.4%
Middle East	1998	16.3%	36	14.8%	2426	15.8%	50	19.9%
Singapore	1209	9.9%	17	7.0%	1440	9.4%	15	6.0%
Kuala Lumpur	125	1.0%	2	0.8%	234	1.5%	1	0.4%
Bangkok	513	4.2%	2	0.8%	505	3.3%	3	1.2%
Hong Kong	320	2.6%	5	2.1%	338	2.2%	5	2.0%
Fukuoka	87	0.7%	0	0.0%	71	0.5%	0	0.0%
Tokyo	606	5.0%	12	4.9%	1961	12.8%	12	4.8%
Brisbane	4	0.0%	0	0.0%	0	0.0%	0	0.0%
Sydney	87	0.7%	17	7.0%	202	1.3%	8	3.2%
Melbourne	43	0.4%	8	3.3%	60	0.4%	2	0.8%
Far East & Australia	2994	24.5%	63	25.9%	4811	31.3%	46	18.3%
London	1021	8.3%	58	23.9%	1126	7.3%	67	26.7%
Zurich	538	4.4%	22	9.1%	647	4.2%	23	9.2%
Frankfurt	391	3.2%	10	4.1%	636	4.1%	13	5.2%
Amsterdam	773	6.3%	6	2.5%	838	5.5%	3	1.2%
Paris	354	2.9%	3	3.3%	563	3.7%	8	3.2%
Rome	482	3.9%	3	1.2%	394	2.6%	4	1.6%
Vienna	1	0.0%	0	0.0%	20	0.1%	1	0.4%
Brussels	0	0.0%	0	0.0%	44	0.3%	1	0.4%
Berlin	1	0.0%	0	0.0%	9	0.1%	0	0.0%
Europe	3561	29.1%	107	44.0%	4277	27.8%	120	47.8%
GRAND TOTAL	12230	100.0%	243	100.0%	15368	100.0%	251	100.0%

Source : Department of Civil Aviation

4.3. Air Lanka - Current Fleet and Available Cargo Capacity

Air Lanka's current fleet, with approximate available cargo capacity, by aircraft type are:

Table 6. Air Lanka - Fleet and Cargo Capacity

Aircraft Type	Number in Fleet	Date of Manufacture	Cargo Capacity (LD-3 Containers)	Approximate Payload (Kgs)*
Tristar - 100	1	1973	8	5600
Tristar - 200	2	1979/'81	16	11200
Tristar - 50	1	1974	8	5600
Tristar -500	3	1981/'82	12	8400
Boeing 737-200	2	1968/'69	None	1500
Airbus A320-200	1	1992	None	1500

Source : JP Airline Fleets/Air Lanka
Note :* The payload of a LD-3 container assumed to be 700 Kgs

Both of the Tristar -200 variants and one -500 aircraft are on operating leases from other airlines.

4.4. Air Lanka - Future Fleet and Cargo Payload Capacity

Air Lanka have the following aircraft on order :

Table 7. Air Lanka - Aircraft Orders

Aircraft Type	Number on Order	Delivery Date(s)	Cargo Capacity (LD3-Containers)	Approximate Payload (Kgs)
Airbus A320-200	1	1994	None	1500
Airbus A340-300	5	1994 - ?	23	16100

Source : JP Airline Fleets/Airbus

Air Lanka plan to take delivery of the first Airbus A340 aircraft in Summer 1994. There are no firm delivery dates for aircraft numbers 2 to 5. No firm decision has yet been taken on which routes the aircraft will operate. It is assumed they will be used on non-stop operations to European destinations and to Japan and Australia.

The A340's will stabilise freight capacity and five aircraft, on a simple comparison, will increase the freight lift currently offered by the 7 Tristars by 150%.

As deliveries of the Airbus 340 proceed there is uncertainty about the deployment of the Tristar fleet. Air Lanka will almost certainly want to phase out the older -100 and -50 variants as soon as possible. They may also want to return the leased -500 aircraft, and keep the owned -500 aircraft. The fate of the -200 aircraft remains uncertain. In response to the increased demand for air freight capacity, Air Lanka are carrying ou a feasibility study into the conversion of one or two of the -200 variants into full freight mode. The conversion of a -200 aircraft to full freighter configuration would cost circa US$ 10 million, to produce an aircraft capable of carrying 65 tonnes for 2,500 nautical miles, i.e. non-stop from Colombo to Dubai, Kuwait, Hong Kong and Manila.

A single converted aircraft would make a significant impact on air cargo capacity, based on the following assumptions :

Annual Aircraft Utilisation 3,000 hours/per annum
Average sector time 3.75 hours
Weight load factor 65%
Annual cargo uplift: 3000 hours/3.75 = 800 sectors x 65 tonnes x 65% = 33,800 tonnes
1992 cargo exports and imports at Katunayake Airport = 50,092 tonnes

Funding for the conversion is currently being sought. Two organisations, Marshall/Lockheed Aeronautical Systems Company and Avtec/Lockheed Aircraft Service Company are marketing Tristar freighter conversions, while Pemco Aeroplex has completed the only Tristar freighter in commercial service.

4.5. Other Airlines Operating From Katunayake Airport

A once-weekly operation to/from Seoul by Korean Airlines with Boeing 747 -200F aircraft is currently the only dedicated cargo service operating from Colombo.

All other cargo capacity is offered in the bellyholds of scheduled and charter passenger aircraft. Details of the cargo capacity offered by the aircraft types of these airlines is shown in table 8 below:

Table 8. Other Scheduled Airlines - Fleet and Cargo Capacity

Airline	Aircraft Type	Cargo Capacity (LD-3 Containers)	Approximate Payload (Kgs)*
Singapore Airlines	A310-300	11	7700
Singapore Airlines	Boeing 747-200	22	15400
Gulf Air	Tristar -200	16	11200
Emirates	A310-300	11	7700
KLM	Boeing 747-300	22	15400
LTU	MD-11	22	15400
Korean Airlines	Boe. 747-200F		80000-100000
PIA	Airbus A300B4	15	10500
Kuwait Airways	Airbus A310-200	10	7000
Saudia	Boeing 747-300	22	15400
Air France	Boeing 747-100	20	14000
Thai Airways	Airbus A300B4	15	10500

Source : JP Airline Fleets/Air Lanka
Notes : Assumes 80% passenger load factor
The payload of a LD-3 container assumed to be 700 Kgs

4.6. The Regulation of Air Cargo Services

Sri Lanka has an "open-skies" policy toward the operation of freight services. There are no restrictions on any operator wishing to commence cargo services to or from Colombo. There are no restrictions on charter operators offering their bellyhold capacity to the market.

If tourist arrivals to Sri Lanka, from Europe in particular, continue to grow there will be more scheduled and charter services able to offer freight capacity.

During February 1993, two all-cargo operators are planning to commence services to/from Colombo, demonstrating the application of the "open-skies" policy. Flying Cargo are planning to operate regular services between Colombo and Male using An-12 aircraft with a freight payload of around 20 tonnes and South African Airways are planning to operate Johannesburg-Mauritius-Colombo-Singapore and return with IL-76 aircraft, offering a payload of 40 tonnes.

Sri Lanka also adopts an "open-skies" policy towards passenger services. However, the Department of Civil Aviation and Air Lanka consider applications closely before agreements are made. This is in response to the need to protect levels of passenger traffic and maintain yields.

Export Airfreight Capacity From Colombo To Target Destinations, Week : 15/02/93-21/02/93

Destination	Airline	Flt.No	Dep.Time	Aircraft Type	Day(s)* Operated	Estimated + Freight Capacity Per Week - Tonnes	No.of Stops	Via
Amsterdam	Air Lanka	567	0100	L10	357	6	2	Abu Dhabi/Brussels
	KLM	802	0400	Boe.747	47	6	1	Karachi
Capacity Per Week - Amsterdam						12		
London	Air Lanka	503	0230	L10	246	9	1	Dubai
		503	0830	L10	7	3	1	Dubai
Capacity Per Week - London						12		
Dubai	Air Lanka	541	0130	L10	57	6	0	en route Berlin/Frankfurt
		547	0200	L10	357	9	0	en route Zurich/Frankfurt
		503	0230	L10	246	9	0	en route London
		503	0830	L10	7	3	0	en route London
	Emirates	049	0230	A310	135	12	0	origin Singapore
		813	1045	Boe.727	4	2	0	
		811	1520	Boe.727	6	2	0	
		811	1615	Boe.727	1	2	0	
		811	2030	Boe.727	5	2	0	
Capacity Per Week - Dubai						47		
Hong Kong	Air Lanka	424	0845	L10	46	12	0	
Capacity Per Week - Hong Kong						12		
Singapore	Air Lanka	344	0900	L10	36	6	0	en route Taipei
		312	0900	L10	15	6	1	Kuala Lumpur
		458	2240	L10	6	3	0	en route Fukuoka
	Air France	156	0800	Boe 747	6	3	0	en route Kuala Lumur
	Emirates	048	1010	A310	247	12	0	
	Singapore A/L	401	2355	A310	23457	40	0	
Capacity Per Week - Singapore						70		

Notes : * Day 1 = Monday, 2 = Tuesday, 3 = Wednesday, 4 = Thursday, 5 = Friday, 6 = Saturday, 7 = Sunday

+ Freight capacity estimated, capacity on day dependent on freight available by sector

Source : SH & E Schedule Database

4.7. Air Freight Capacity to Target Destinations

Attachment 7 details the current services operated and cargo capacity offered to each of the target destinations listed in the terms of reference, i.e. Hong Kong, Singapore, Dubai, London and Amsterdam.

Although there are no direct services operated from Colombo to the USA, cargo is regularly transhipped via Singapore, Seoul, or Tokyo to the West Coast cities and via most European points, or Jeddah to cities on the East Coast.

Although no foreign airlines operate directly from Colombo to Hong Kong, Singapore Airlines regularly interline cargo via Singapore.

Air freight capacity is in very short supply to the Maldive Islands. Generally, there were few instances reported of serious under capacity on other routes, although the peak for garment traffic exports around March each year does cause severe space shortages.

4.8 Initiatives For Increasing Air Freight Capacity From Katunayake Airport

With the burgeoning increase in the demand for export air freight capacity, such initiatives will be vital in the future.

4.8.1 Air Lanka

Air Lanka, as the national carrier, should be a catalyst for increasing air freight capacity. In 1992 they were instrumental in persuading Cargolux, an all-cargo airline, to operate a series of Boeing 747F flights from Colombo to Abu Dhabi and Luxembourg. Air Lanka bought 50% of the capacity offered by Cargolux from Colombo. Cargolux are due to fly another series of charters from April of this year. They are primarily interested in moving higher rated freight.

4.8.2 Export Development Board

The EDB could, additional to its pivotal role of promoting Sri Lanka's exports, take on the responsibility for marketing Colombo as a potential air cargo destination to airlines. This would need to be done in conjunction with Air Lanka.

4.8.3 The Exporters

In a number of African countries, initiatives have been taken by individual growers and producers to charter their own aircraft capacity. This is conditional on having regular demand, in sufficient quantities to attract airline interest. The need is for a consolidator, able to exert discipline in the market place to ensure regular supply to overseas markets. In 1990, Air Lanka chartered a Boeing 707 freighter aircraft at the request of certain exporters to operate a series of flights to Amsterdam. Due to lack of support and the unserviceability of the aircraft the exercise was unsuccessful.

4.8.4 Back-Hauls

With the introduction of long range aircraft such as the Boeing 747-400 and the Airbus A340 the need for airlines to transit points between Europe and the Far East and Australia is becoming much less.

4.9. Potential for Transfer of Air Freight Commodities to Sea Freight

The Post Harvest Technology unit of the Ceylon Institute of Scientific and Industrial Research (CISIR) are examining the feasibility of marine freshtainer technology being used for the exports of fresh fruit and vegetables produced in Sri Lanka. These containers automatically control all elements of the internal atmospheric conditions to ensure the correct conditions for each product. Freshtainers are already in use around the world. Research at CISIR is currently concentrated on the feasibility of exports of pineapples and bananas. Longer term, other products which could be considered for transportation using freshtainers, include melon, okra, yard long beans and baby corn plus horticultural products such as cut flowers, foliage and plants.

The Sri Lanka garment industry is considered to generally disorganised. The current high utilisation of comparatively expensive air freight, rather than cheaper sea or sea-air options may be symptomatic of this. The number of garment factories in Sri Lanka is planned to grow substantially. This expansion of the industry may well lead to better organisation, and less need for air freight capacity.

5. CONSTRAINTS ON AIR FREIGHT SERVICE AND CAPACITY

5.1 Air Lanka - Current Constraints

The biggest constraints facing Air Lanka are its fleet of Tristar aircraft, lack of adequate handling facilities for perishable goods and Government policy directives which affect the day to day running of its cargo business, plus the activities of a section of the exporting community.

5.1.1. Air Lanka - Fleet Constraints

The fleet of 7 Tristar aircraft comprises 4 different variants, 3 of which offer different cargo capacities. There are also differences in the technical specifications for each type. The Tristar -500 is capable of flying 5,600 miles with a total passenger and cargo payload of 44,500 Kgs, compared to the -100 variant which will fly for 4,500 miles with a combined payload of 35,000 Kgs.

In calendar year 1991 each Tristar aircraft was flown for an average of around 12 hours per day, a very high figure for aircraft of their age. By comparison, Air India flew their Boeing 747-200 fleet for an average of around 9.33 hours per day during the same period.

High aircraft utilisation and tight scheduling means that there is little room for manoeuvre in the event of a technical problem, or if an aircraft is subjected to delays caused by bad weather or air traffic control. Such tight scheduling results in inevitable delays, and perhaps, more importantly from the cargo point of view, aircraft substitutions. When this happens, Air Lanka's cargo reservations having booked cargo for a Tristar -200 service, on the day may find they are operating with a -100 variant, leading to an off-load situation.

The Boeing 737-200 and Airbus A320 aircraft do not offer containerised freight capability. These aircraft have limited cargo capacities and offer little opportunity to develop regional feeder services for freight transport.

The cargo capacities previously shown for Air Lanka and the other airlines are illustrative. Available cargo payload on a flight is dependent on the following factors:

i) the distance flown; the payload offered is conditioned by the range over which the aircraft will fly

ii) the number of passengers; their baggage and excess baggage requirements

iii) the density and mix of commodities offered for transport

iv) the packing efficiency of warehouse staff in building pallets and stuffing containers

v) en-route weather conditions on the day. Severe headwinds may require the Captain to take extra fuel at the expense of cargo.

5.1.2 Air Lanka - Government Policy Directives

The Government of Sri Lanka is keen to promote exports. Sri Lanka has a small domestic market, a world market enables production to take place on a much larger scale. The Export Development Board (EDB) and various exporter's associations, representing different product groupings, are keen to develop and promote exports to worldwide markets.

The current National Export Development Plan 1990-1994 identifies inadequate air cargo space as :

"a critical and acute bottleneck in the development and expansion of perishable exports such as cut flowers and foliage plants, live fish, fruit, vegetables etc."

The Plan further states that :

"It should be a central concern of national aviation policy to ensure that adequate air cargo services are available to meet Sri Lanka's export needs. It should also ensure that priority on the regular, scheduled services is given to the export of perishable cargoes"

Air Lanka are frequently called to account by the EDB in circumstances where Members of the various exporter's associations can show that the airline has not performed in accordance with the stated aims. A recent example was a meeting held between several exporter's associations and Air Lanka to discuss the problems that shipper's faced when the airline cancelled a direct cargo flight to Brussels and off-loading other Europe bound cargo from other flights at the last moment. The meeting was fully documented in the business section of a leading Sri Lankan newspaper the following day. (Appendix 3)

There is consistent pressure exerted upon Air Lanka to provide additional air freight capacity between Colombo and the Maldive Islands, for the transport of perishable produce to supply tourist hotels. Air Lanka have responded to this pressure by operating additional Tristar services and substituting Tristars for Boeing 737 aircraft on some services. Flying the Tristar on this short sector, with few passengers and one-way freight traffic is a highly unprofitable way of using a scarce resource.

The commitment on Air Lanka to service the fruit and vegetable exporters means that the opportunity is lost to them to compete for the carriage of higher yielding cargo.

5.1.3. Air Lanka - Exporter Constraints

Air Lanka seek to work closely with, and wherever possible, assist the exporters of perishable products. They are keen to promote a positive image of Sri Lanka's products in overseas markets. There is however a small section within the exporting community which causes Air Lanka significant problems. These tend to be small, irregular shipper's of fruit and vegetables, consigning local produce to relatives in the Middle East and Europe. The main problems caused are :

i) not supplying freight on the day to the booked requirement

ii) bad packaging, leading to spoilage and resulting claims on the airline.

Air Lanka is committed to becoming an aggressive, business-oriented and selective niche carrier. The pressures described above are a serious constraint to running their cargo business on a truly commercial basis.

5.2. Foreign Airlines

The other airlines operating from Katunayake Airport are generally in a better position than Air Lanka because they are able to offer a consistent amount of cargo capacity on each flight.

They are constrained, however, in their ability to offer air freight capacity to all sectors of the export market. They will be seeking to secure high yield air freight traffic because :

i) they need to achieve revenue targets set by Head Office

ii) as out-stations, they have to compete for scarce capacity on services from their major hubs. Decisions on allocation of space are usually made on the basis of highest yield.

The foreign airlines will only be interested in offering capacity to lower rated commodities where traffic is consigned to first point of landing only.

5.3. Security at Katunayake Airport

The security arrangements at Katunayake require non-perishable cargo to be delivered to the airport at least 24 hours prior to aircraft departure; for perishable cargo 6 hours. Perishable cargo is X-rayed prior to entering the Air Lanka terminal, and may be subject to search. The possibility of search means that shippers generally send a representative with each consignment to supervise any unpacking and re-packing that may be required.

The security arrangements are generally acknowledged by exporters as being necessary. A repetition of the incident where an Air Lanka aircraft was destroyed on the ground at Katunayake by terrorist action could have disastrous consequences for tourism and damage Sri Lanka's reputation with overseas buyers.

Exports of Vegetables to the Maldive Islands

		Total Exports		Exports to Maldives		Maldives Share	
Code	Description	1991 Quantity (Tonnes)	1991 Value (000 Rs)	1991 Quantity (Tonnes)	1991 Value (000 Rs)	By Quantity	By Value
070110	Seed Potatoes	9.4	537	9.4	509	100.0%	94.8%
070190	Other	17.7	1201	11.3	1063	63.8%	88.5%
070200	Onions, Shallots,Garlic, Leeks	35.7	1344	35.4	1325	99.2%	98.6%
070310	Onions and Shallots	1.2	33	0.2	12	16.7%	36.4%
070320	Garlic	15.5	1067	0.3	29	1.9%	2.7%
070390	Leeks & Other Alliaceous Veg.	626.5	18461	114.1	4288	18.2%	23.2%
070410	Cauliflowers and Headed Broccoli	4.1	175	4.1	175	100.0%	100.0%
070490	Other	5.1	156	5.0	145	98.0%	92.9%
070511	Cabbage Lettuce	37.0	1003	36.7	996	99.2%	99.3%
070519	Other	2.2	125	2.2	122	100.0%	97.6%
070529	Other	3.5	128	3.4	123	94.4%	96.1%
070610	Carrots and Turnips	33.2	905	32.9	898	99.1%	99.2%
070690	Other	5.7	188	5.0	134	87.7%	71.3%
07070001	Gherkins	46.6	986	20.9	373	44.8%	37.8%
070820	Beans	8.5	245	8.1	230	95.3%	93.9%
070890	Other Leguminous Veg.	0.3	8	0.3	8	100.0%	100.0%
070910	Globe Artichokes	2.3	77	1.8	62	78.3%	80.5%
070930	Aubergines	3.6	78	3.6	78	100.0%	100.0%
070940	Celery	1.9	101	1.8	92	94.7%	91.1%
070951	Mushrooms	0.6	155	0.1	59	16.7%	38.1%
070960	Capsicum	522.6	12310	60.8	2564	11.6%	20.8%
070970	Spinach	0.6	12	0.6	12	100.0%	100.0%
070990	Other	1533.5	142525	744.5	123582	48.5%	86.7%
071010	Potatoes	15.3	769	13.6	728	88.9%	94.7%
071021	Peas	0.5	10	0.5	10	100.0%	100.0%
071022	Beans	6.5	158	5.8	143	89.2%	90.5%
071029	Other	4.6	123	0.1	3	2.2%	2.4%
071030	Spinach	0.1	2	0.0	1	0.0%	50.0%
071080	Other Vegetables	2.2	94	0.0	15	0.0%	16.0%
071090	Mixtures of Vegetables	22.1	469	1.1	67	5.0%	14.3%
071110	Onions	65.7	481	0.8	42	1.2%	8.7%
071120	Gherkins	6989.7	185648	0.2	4	0.0%	0.0%
071190	Other Veg. Mixtures of Veg.	3.2	335	0.0	0	0.0%	0.0%
071210	Potatoes	0.1	73	0.1	2	100.0%	2.7%
071220	Onions	3.1	2687	0.1	3	3.2%	0.1%
071290	Other Veg. Mixtures of Veg.	15.8	1015	11.0	288	69.6%	28.4%
07131001	Black Gram	444.1	4904	0.0	0	0.0%	0.0%
07131003	Green Gram	1.1	55	1.0	40	90.9%	72.7%
07131009	Other	1.9	140	1.0	94	52.6%	67.1%
071320	Chickpeas	0.3	19	0.3	19	100.0%	100.0%
071332	Small Red Beans	0.1	4	0.0	0	0.0%	0.0%
071340	Lentils	0.5	40	0.5	40	100.0%	100.0%
071390	Other	0.8	84	0.5	68	62.5%	81.0%
071410	Manioc (Cassava)	735.0	19796	1.3	77	0.2%	0.4%
071490	Other	135.8	3716	0.5	15	0.4%	0.4%
Total 07	Edible Veg.& Certain Roots & Tuber	11365.9	405442	1140.9	138518	10.0%	34.2%

Source : Customs, Sri Lanka

Exports of Edible Fruits to the Maldive Islands

		Total Exports		Exports to Maldives		Maldives Share	
Code	Description	1991 Quantity (Tonnes)	1991 Value (000 Rs)	1991 Quantity (Tonnes)	1991 Value (000 Rs)	By Quantity	By Value
080300	Banana (Incl.Plantains)	53.8	1671	0.5	28	0.9%	1.6%
080410	Dates	17.3	418	12.5	333	72.2%	79.7%
080420	Figs	4.2	349	4.2	349	100.0%	100.0%
080430	Pineapples	823.7	21894	369.2	8607	44.8%	39.3%
080440	Avocados	2.8	178	1.8	115	63.1%	64.6%
08045002	Mangoes	8.4	523	5.6	307	66.5%	58.7%
08045003	Mangosteens	0.4	57	0.3	24	73.5%	42.1%
080510	Oranges	0.9	187	0.9	187	100.0%	100.0%
080520	Mandarins	0.1	13	0.0	0	5.7%	0.0%
080530	Lemons	17.1	851	16.3	813	95.5%	95.5%
080540	Grapefruit	0.9	85	0.9	82	97.8%	96.5%
080590	Other	7.7	304	3.5	156	45.4%	51.3%
080610	Fresh Grapes	0.1	47	0.1	47	100.0%	100.0%
080620	Dried Grapes	0.3	60	0.3	60	100.0%	100.0%
080710	Melons	0.0	1	0.0	1	100.0%	100.0%
080720	Papayas	6.0	181	5.5	99	92.2%	54.7%
080810	Apples	1.5	86	0.7	37	45.6%	43.0%
080820	Pears and Quinces	2.3	297	1.8	162	78.0%	54.5%
080910	Apricots	2.5	78	0.0	0	0.0%	0.0%
080930	Peaches	0.7	15	0.6	14	93.4%	93.3%
080940	Plums and Sloes	1.0	139	0.1	60	4.9%	43.2%
081010	Strawberries	8.9	1264	0.0	2	0.2%	0.2%
081030	Black,White or red Currants	0.9	300	0.0	7	2.1%	2.3%
081090	Other	452.1	13138	54.2	3798	12.0%	28.9%
081110	Strawberries	3.1	472	0.0	0	0.0%	0.0%
081290	Other	71.6	109	0.7	28	1.0%	25.7%
Total 08	Edible Fruit	1488.6	42717	479.6	15314	32.2%	35.8%

Source : Customs, Sri Lanka

5.4. Fruit and Vegetable Exporters

Air Lanka offer more services to more destinations than any other carrier from Katunayake Airport. The fresh produce exporters are particularly reliant on Air Lanka offering them an outlet to both develop new and service existing markets. In order to compete effectively in overseas markets the exporters must have guaranteed capacity, with competitive air freight rates.

The constraints under which Air Lanka currently operates means that they cannot offer the consistent air freight capacity to ensure reliable supplies to overseas buyers. Air Lanka offer less than daily service to the majority of destinations on their network. If a perishable shipment is off-loaded, there may not be a service the following day, and even if there were it may well already be fully booked.

The most pressing problem currently facing this sector is the lack of air cargo capacity to the Maldive Islands. Despite the relatively close proximity of the Islands, air freight is the only mode that can reliably deliver perishable produce to service the rapidly growing tourism industry. Attachments 8 and 9 give details of the fruit and vegetable products exported to the Maldives, and the total share of this market.

India is viewed as the major threat to Sri Lanka's fruit and vegetable exporters. India can produce fruits and vegetables at a much lower cost than Sri Lanka. India has closer proximity to the major markets of the Middle East and Europe, enjoys considerable export air freight capacity via Madras and Bombay airports, and therefore lower air freight costs.

The air freight rates for exporting fresh produce are lower than for any other commodity, which consequently makes airlines, other than Air Lanka generally reluctant to carry this type of freight, whilst there is sufficient demand from other export sectors.

5.5. Live Fish Exporters

The live fish exporters also have the major constraint of dealing with Air Lanka. Their cargo is particularly time-sensitive. Prior arrangements have to be made with their buyers for meeting flights at destination airports to enable a swift transfer of the fish to oxygenated tanks. If a live fish consignment is off-loaded in Colombo, the buyer at the other end may have a wasted journey.

It is essential that Air Lanka, wherever possible, advise live fish exporters of circumstances that might cause the consignment not to fly as booked, before the shipper leaves his premises to go to the airport.

Live fish exports attract a higher air freight rate than fresh produce and general cargo, consequently Air Lanka and the other airlines are keen to secure this traffic.

5.6. Cut Flowers, Plants, Cuttings and Foliage Exporters

Constraints faced in this sector are very similar to those faced by live fish exporters.

6. THE PRICE AND COST OF AIR FREIGHT CAPACITY FROM SRI LANKA

6.1. Air Freight Pricing Policy

The underlying philosophy of air cargo pricing policy is of charging what the traffic will bear, or market oriented pricing. It is only on routes where freight capacity is limited in relation to the demand for freight space that the official tariff will be generally adhered to. Where surplus capacity is available from an originating point, there is a strong likelihood that official rates may be discounted further.

Table 9 details the Asian airlines currently operating with maindeck air cargo capacity. Most of the carriers listed also operate with significant fleets of combination aircraft. It is these carriers who dominate the air freight market and set market freight rates.

Table 9 : Asian Airlines Operating Maindeck Cargo Aircraft

Airline	Main-Deck Cargo Fleet
MAS	1 x DC-10 Freighter 1 x B.747-300 (SCD), 2 x B.747-400 (SCD) 1 x B.737-200 Freighter (On order 1 x B.737-300 Freighter)
Air Hong Kong	2 x B.747-100 Freighter 2 x B.707-300 Freighter
Air China	1 x B.747-200 Freighter 1 x B.707-300 Freighter 3 x B.747-200 (SCD), 3 x B.747-400 (SCD)
China Eastern	1 x MD-11 Freighter 2 x Lockheed Hercules Freighter
Cathay Pacific	4 x B.747-200 Freighter (On order 2 x B.747-400 Freighter)
China Airlines	2 x B.747-200 Freighter 1 x B.747-200 (SCD)
Garuda	1 x B.747-100 (SCD), 2 x B.747-200 (SCD)
Japan Airlines	1 x B.747-100 Freighter 10 x B.747-200 Freighter
Korean Airlines	9 x B.747-200 Freighter 2 x A300-200 Freighter 1 x B.747-300 (SCD), 1 x B.747-400 (SCD) (On order 1 x B.747-400 (SCD))
Asiana	(On order 7 x B.747-400 (SCD))
Nippon Cargo Airlines	6 x B.747-200 Freighter
Philippine Airlines	1 x B.747-200 (SCD)
Qantas	2 x B.747-200 (SCD)
Singapore Airlines	3 x B.747-200 Freighter 3 x B.747-300 (SCD) (On order 1 x B.747-400 Freighter)
Thai International	None

Note: SCD = Side Cargo Door - main deck freight configuration optional
Source: JP Airline Fleets (1992/93)

6.2 Air Lanka - Air Freight Tariff

Air Lanka publish freight all kinds (FAK) rates in US Dollars, converted to Sri Lankan Rupees, based on a conversion rate of $1 = 46.00 LKR. The conversion rate changes in line with currency depreciation or appreciation. The conversion rate has recently been changed from $1 = 44.00 LKR, an effective increase in the LKR rates of 4.5%.

The current tariff, which has been in operation since 1990, features general freight rates, specific commodity rates at different weight breakpoints and container rates. The current rates were agreed following meetings held between Air Lanka and representatives from the exporter's associations.

Specific commodity rates are individual low rates for specific and clearly defined commodities. These rates may be as low as 20% or less of the general cargo rate. Tables 10 and 11 below detail Air Lanka's FAK rates to Hong Kong and Amsterdam.

Table 10. Air Lanka's FAK Tariff to Hong Kong

USD/Kilo	45 K	100 K	250 K	300 K	500 K
General Cargo Rate	2.20	1.87	n/a	1.55	1.10
SCR 0007: Fruit, Vegetables	n/a	n/a	n/a	n/a	0.99
SCR 0300: Edible Fish (Seafood)	n/a	n/a	1.38	n/a	1.21
SCR 0495: Strawberries	n/a	1.76	1.32	n/a	n/a
SCR 1024: Live Fish	n/a	1.83	1.59	n/a	n/a
SCR 1401: Bulbs,Plants,Flowers	n/a	1.24	n/a	n/a	n/a

Source : Air Lanka

Container rates are offered to Hong Kong as follows :

Type	USD	Minimum Chargeable Weight (Kilos)
LD3	836.00	755
LD11	1500.00	1155
LD9	2300.00	1650

Table 11. Air Lanka's FAK Tariff to Amsterdam

USD/Kilo	45 K	100 K	250 K	300 K	500 K
General Cargo Rate	3.02	2.57	n/a	2.45	2.20
SCR 0007: Fruit, Vegetables	n/a	n/a	n/a	n/a	1.24
SCR 0300: Edible Fish (Seafood)	n/a	3.13	n/a	n/a	n/a
SCR 0495: Strawberries	n/a	2.48	1.93	n/a	n/a
SCR 1024: Live Fish	n/a	2.76	2.37	n/a	n/a
SCR 1401: Bulbs,Plants,Flowers	2.37	1.87	n/a	n/a	1.54
SCR 1550: Tobacco,Tobacco Prod.	n/a	n/a	n/a	n/a	2.64
SCR 2203: Wearing Apparel	n/a	n/a	n/a	n/a	2.20

Source : Air Lanka

Container rates are offered to Amsterdam as follows :

Type	USD	SCR	Minimum Chargeable Weight (Kilos)	
LD3	1600.00		755	
LD11	3000.00		1155	
LD9	4500.00		1650	
LD3	1100.00	1401-Bulbs,Plants,Flowers		755
LD3	1540.00	0850-Mushrooms	755	
LD3	1497.58	2311-Hanging Garments	755	
LD11	2640.00	2311		1155
LD9	3850.00	2311		1650

Air Lanka state that they do not need to discount their FAK rates, since they currently operate with virtually no spare capacity on any route. The only incentives they offer are additional commissions paid to appointed freight forwarders.

6.3. Other Scheduled Airlines - Air Freight Tariff

The airlines interviewed for this study, offering lower hold capacity, said that they used the Air Lanka tariff, and that in certain circumstances offered additional commission as incentive. As with Air Lanka, they did not need to discount rates since they operate with virtually no spare capacity.

Korean Airlines, as the only dedicated operator of freighter aircraft, offer pallet rates to the larger freight forwarders. The forwarder pays for a pallet, it is then up to him to build it as efficiently as possible.

If Air Lanka were to offer lower SCR rates, there is no way in which they could, or would want, to force other carriers to reduce their rates accordingly. Air Lanka are operating in a global environment; any action they take in Colombo to regulate other carrier's pricing policies may be reflected in Air Lanka's freedoms at other airports.

6.4. Fruit and Vegetables

For fruit and vegetables shipped by air the pricing of transportation by air is of crucial importance. The final market price is made up of two elements :

i) the cost of production

ii) the cost of transportation

The transportation cost can be, for some products, a very high percentage of total cost to the customer.

The EDB currently offers a rebate of 4 LKR's per kilo for consignments of fruits and vegetables sent to the Middle East. This the only subsidised air freight rate offered from Sri Lanka.

6.5. Comparison Between Rates Offered From Sri Lanka and Competitor Countries

Attachments 10 - 12 detail the official specific commodity rates for live fish, edible animal and vegetable products and bulbs, flowers, seeds, tubers, plants and cuttings between Colombo, Sydney, Perth, Melbourne, Bombay, Delhi, Calcutta; Bangkok, Nairobi and Lagos to Hong Kong, Singapore, Dubai, London, Amsterdam, New York, Los Angeles and Chicago. Rates were converted to US Dollars assuming the following exchange rates :

Currency	USD Equivalent
Australian Dollar	1.3411
Indian Rupee	30.3629
Thai Baht	25.2399
Kenyan Shilling	32.4958

SCR rates for item 0007 are generally the lowest in the market. From the analysis carried out Colombo is price competitive with other airports in competitor countries, based on geographical proximity to major markets. On the day, any carrier may be prepared to offer heavily discounted rates. This will be a function of excess supply chasing demand. Some sample market rates ex Bangkok are detailed below. These do not come in below the official tariff charged from Colombo.

6.5.1. Market Rates ex Bangkok

Market rates for SCR 0007 from Bangkok to London/Amsterdam are around US$2.20 per kilo, for cut flowers around US$2.50 per kilo. Rates to Europe on dedicated freighter aircraft can be as low as $1.80 per kilo for all commodities. SCR 0007 traffic from Bangkok to Tokyo/Taipei sells at around US$1.50 per kilo, cut flowers around US$1.35 per kilo. Perishable traffic to West Coast USA is around US$2.10 per kilo, East Coast USA is around $2.40 per kilo. Bangkok to Dubai is around $1.45 per kilo.

Comparative Tariffs for Movement of Goods under SCR 1024 (Live Fish)

Origins	Destination Markets															
	Hong Kong		Singapore		Dubai		London		Amsterdam		New York		Los Angeles		Chicago	
	SCR US$ per kilo	Quant.	SCR US$ per kilo	Quant.	SCR US$ per kilo	Quant.	SCR US$ per kilo	Quant.	SCR US$ per kilo	Quant.	SCR US$ per kilo	Quant.	SCR US$ per kilo	Quant.	SCR US$ per kilo	Quant.
Colombo	1.83 1.59	100 250	1.50 1.32	100 250	1.76 1.54	100 250	2.76 2.37	100 250	2.76 2.37	100 250	3.78 3.30	100 250	3.78 3.30	100 250	3.78 3.30	100 250
Sydney	1.91	45	1.68	45	n/a	n/a	9.01 3.60	45 250	9.01 3.60	45 250	n/a	n/a	n/a	n/a	n/a	n/a
Perth	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Melbourne	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bombay	n/a	n/a	n/a	n/a	n/a	n/a	2.15 A80 2.76 SR 2.67 AZ 2.76	100 100 100 100	2.13 2.81 2.64 2.73	100 100 100 100	n/a	n/a	n/a	n/a	n/a	n/a
Delhi	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Calcutta	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bangkok	n/a	n/a	n/a	n/a	n/a	n/a	4.04	100	3.76	100	3.80 3.41	100 300	3.57 3.21	100 300	3.76 3.36	100 300
Nairobi	n/a	n/a	n/a	n/a	n/a	n/a	2.69	100	2.69	100	3.33	100	n/a	n/a	n/a	n/a
Lagos	n/a	n/a	n/a	n/a	n/a	n/a	1.91 1.68 0.68	100 500 1000	1.87 1.68	100 500	4.09	100	n/a	n/a	n/a	n/a

Source. Air Lanka FAK Rates, Feb.1993, JSC Air Cargo Guide, Jan. 1993.

Attachm

Comparative Air Freight Tariff for Goods under SCR's 0001-0099, (Edible Animal and Vegetable Products)

Origins	Destination Markets															
	Hong Kong		Singapore		Dubai		London		Amsterdam		New York		Los Angeles		Chicago	
	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q
Colombo (SCR0007)	0.99	500	0.66	250	0.82	500	1.24	500	1.24	500	n/a	n/a	n/a	n/a	n/a	n/a
Sydney	* 0.91	* 500	* 0.76	* 500	* 2.07	* 100	* 2.57	* 100	* 2.57	* 100	n/a	n/a	n/a	n/a	n/a	n/a
							2.37	500	2.37	500						
							2.13	1000	2.13	1000						
Perth	* 0.83	* 500	* 0.71	* 500	* 1.98	* 100	* 2.48	* 100	* 2.48	* 100	n/a	n/a	n/a *	n/a *	n/a	n/a
							* 2.01	* 1000	* 2.01	* 1000						
Melbourne	* 0.91	* 500	* 0.78	* 500	* 2.07	* 100	* 2.57	* 100	* 2.57	* 100	n/a	n/a	n/a *	n/a *	n/a	n/a
							2.37	500	2.37	500						
							2.13	1000	2.13	1000						
Bombay	1.08	100	0.75	500	0.69	250	1.35	100	1.35	100	1.78	200	n/a	n/a	n/a	n/a
	A80 1.29	100	0.89	500	0.84	250	1.79	100								
	SR 1.34	100	0.92	500	0.72	250	1.68	100								
	0.85	500					AZ 1.74	100								
	A80 1.02	500														
	SR 1.06	500														
Delhi	08	100	0.74	500	0.69	250	1.35	100	1.35	100	1.78	200	n/a	n/a	n/a	n/a
	A80 .29	100	0.89	500	0.83	250	1.78	100	1.79	100	A82 1.57	200				
	SR 1.34	100	0.92	500	0.72	250	1.68	100	1.68	100	A84 1.51	200				
	0.85	500					AZ 1.73	100	1.74	100	BA 2.61	100				
	A80 1.02	500														
	SR 1.06	500														
Calcutta	n/a	n/a	n/a	n/a	1.21	250	1.44	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
					A80 1.46	250	1.90	100								
					SR 1.25	250	1.79	100								
							AZ 1.85	100								
Bangkok	0.63	100	0.52	100	2.38	100	2.50	100	2.50	100	n/a	n/a	2.38	100	n/a	n/a
	0.44	100											2.26	100		
	0 52	100														
Nairobi	n/a	n/a	n/a	n/a	1.33	100	1.57	500	1.57	500	n/a	n/a	n/a	n/a	n/a	n/a
Lagos	1.17	250	n/a	n/a	n/a	n/a	0.80	250	1.15	250	n/a	n/a	n/a	n/a	n/a	n/a
	1.10	500					0.72	500	0.71	500						

Source. Air Lanka FAK Rates Feb 1993, ABC Cargo Guide, Jan 1993

Comparative Air Freight Tariff for Goods under SCR's 1400-1499, Floral and/or Nursery Stock and Bulbs, Flowers, Seeds, Tubers, Plants and Cuttings

Origins	Destination Markets															
	Hong Kong		Singapore		Dubai		London		Amsterdam		New York		Los Angeles		Tokyo	
	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q	SCR US$ per kilo	Q
Colombo	1.24	100	1.16	100	1.38	100	1.87	100	1.87	100	3.34	300	n/a	n/a	1.71	100
			1.10	250			1.54	500	1.54	500						
Sydney	1.70	45	n/a	n/a	n/a	n/a	3.16	45	3.16	45	n/a	n/a	3.06	45	2.74	100
													2.95	100	2.43	500
															2.27	1000
Perth	n/a	n/a	n/a	n/a	3.57	500	3.16	45	3.16	45	n/a	n/a	3.56	100	2.74	100
					2.89	1000							3.02	1000	2.43	500
															2.27	1000
Melbourne	n/a	n/a	n/a	n/a	n/a	n/a	3.16	45	3.16	45	n/a	n/a	3.41	45	2.74	100
													3.26	100	2.43	500
															2.27	1000
Bombay	n/a	n/a	0.89	100	0.91	100	1.35	100	1.39	100	n/a	n/a	n/a	n/a	1.52	100
Bangkok	0.83	45	0.83	45	2.46	45	3.48	45	3.21	45	3.65	100	3.25	100	1.78	45
			0.79	100	2.34	100	3.29	100	3.05	100	3.29	300	2.93	300	1.70	100
Nairobi	n/a	n/a	n/a	n/a	1.06	100	2.38	100	2.38	100	1.48	500	n/a	n/a	3.99	100
							1.91	500	1.91	500	1.34	1000			2.87	500

Source: Air Lanka FAK Rates Feb.1993, ABC Cargo Guide, Jan 1993.

6.6. Marginal Cost of Carrying Cargo

Air Lanka use a joint product approach to assess the marginal costs of carrying cargo. In effect, they allocate the full costs of carrying cargo against the revenue earnt, i.e. identifiable freight related costs plus overheads. Air Lanka did not disclose details of marginal cargo rates.

British Airways estimated that 51% of its cargo revenue on passenger aircraft went to cover freight-related costs. This, however, assumed cargo as a by-product, and only identifiable, cargo related costs were allocated against revenue.

United Airlines allocate all of their direct flying costs to the passenger side of the business, thereby making cargo revenue pure profit.

7. AIR CARGO HANDLING SERVICES

7.1 Current Cargo Throughputs

Total air cargo handled at Katunayake Airport in 1991 was 44,500 tonnes. This compares with 389,100 tonnes at Bangkok, 163,600 tonnes at Bombay, 321,500 tonnes at Sydney. Cargo traffic at Katunayake increased by 12.5% in 1992 to 50,100 tonnes. Export cargo accounted for 63% of total traffic.

Attachment 13 details air freight and mail traffic handled, by direction, for years 1983 to 1992. Attachment 14 shows the seasonality of export air freight traffic at Katunayake Airport. For each year since 1988, there is a marked increase in traffic between January and March, followed by a dip in April and May, increasing through to July, then tapering down to December.

7.2. Cargo Handling Facilities

Airport and Aviation Services (Sri Lanka) Ltd, a private company are responsible for the development, construction and maintenance of the infrastructure at Katunayake Airport.

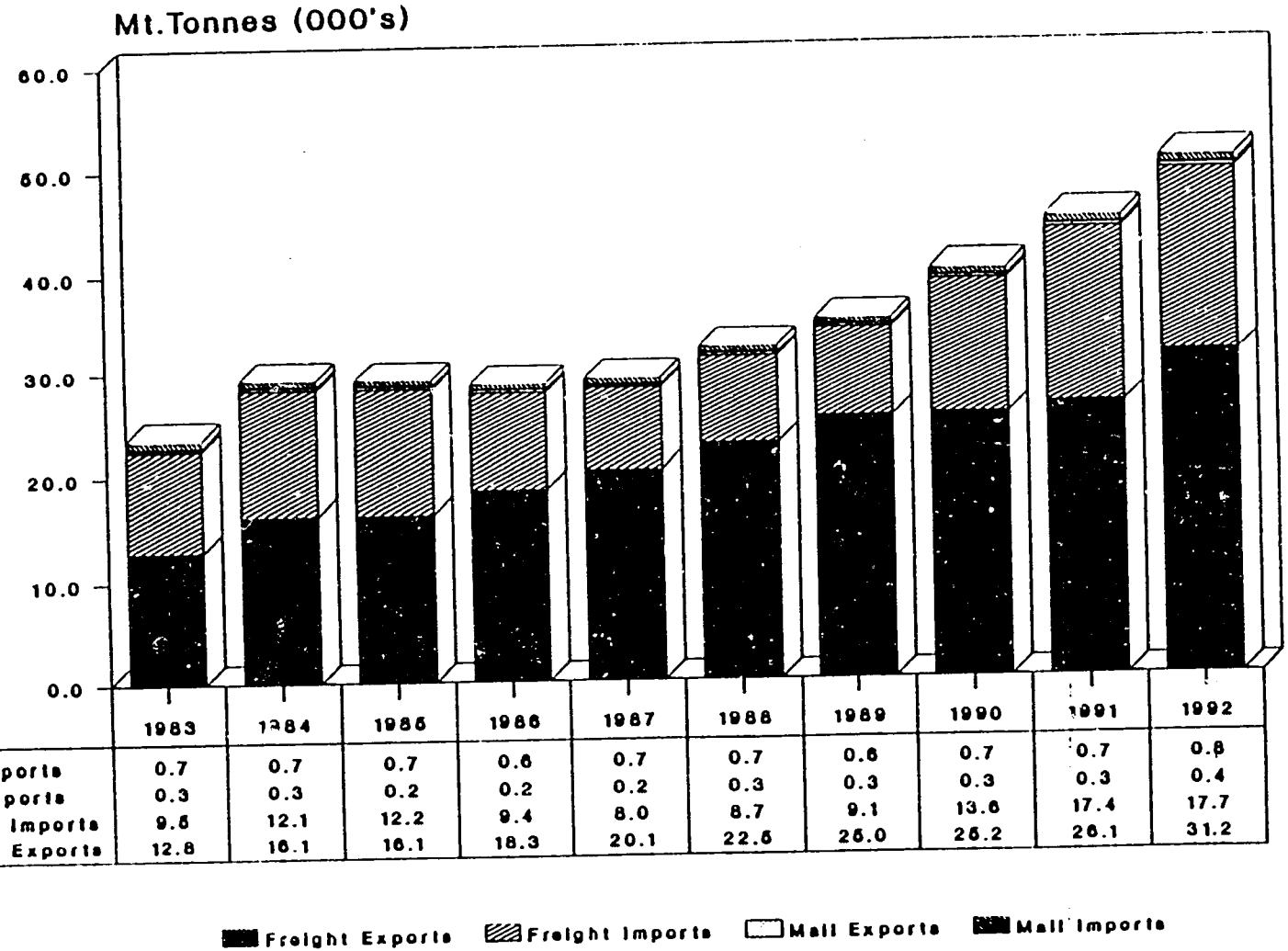
A plan of the current facilities is shown in Attachment 15. They consist of the Air Lanka cargo terminal, cargo village, Terminal 1, used by 19 air freight forwarders, primarily to receive pallets of garment exports and the new Terminal 2, currently under construction and due to be completed by the end of May 1993.

The cargo facilities at the airport are inadequate to cope with present levels of demand from the perishables sector. In the event of an off-load, produce generally cannot be put into a cold store facility to await the next flight. The produce is usually taken back to the shipper's premises to be either reconsigned to another destination or sold to the wholesale markets in Colombo. The Air Lanka cargo terminal has a small cold room and a small freezer room. Neither room can accommodate an LD-3 container. They are no oxygenated fish tanks available to accept off-loads of live fish.

The new Terminal 2 has reserved space for TESS (Pvt) Ltd, for the storage and processing of refrigerated and frozen cargo as well as perishables. TESS already operate the "cold chain" facility in the Mahaweli B area. Space has also been reserved by the postal authorities for an air mail office and CDE for an avionics workshop and spares store. There will still be space available, maybe for an aquarium if the demand exists. Three reefer containers have already been installed in the shell of the new building. These containers, measuring 40 ft x 8ft x 8.5ft, are serviceable and have the capability of providing cold storage facilities between temperature ranges of +5 degrees and -15 degrees centigrade.

There is no cargo apron to accommodate freighter aircraft

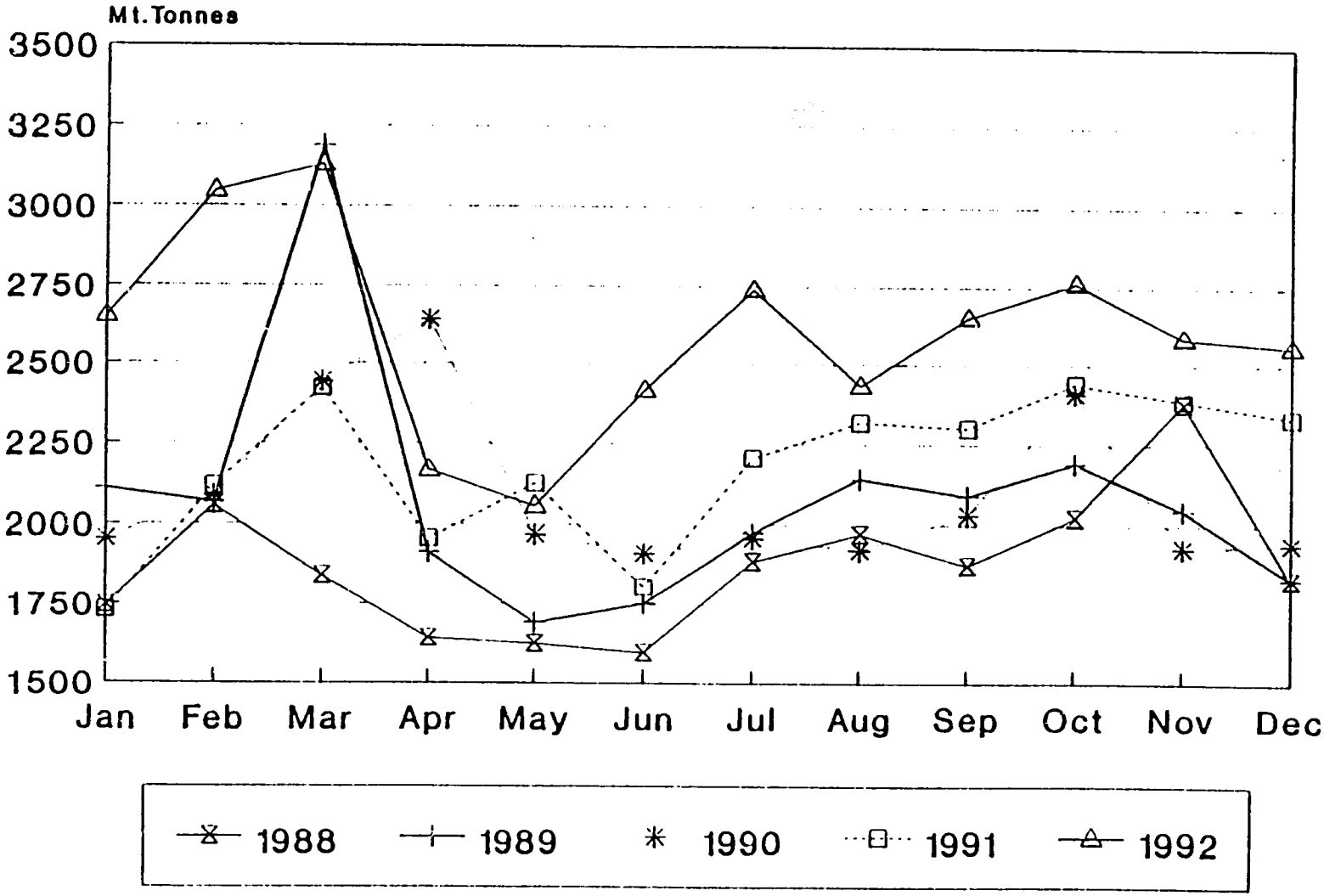
Air Freight & Mail Traffic at Katunayake
1983 - 1992



	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Mail Imports	0.7	0.7	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.8
Mail Exports	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
Freight Imports	9.6	12.1	12.2	9.4	8.0	8.7	9.1	13.6	17.4	17.7
Freight Exports	12.8	16.1	16.1	18.3	20.1	22.6	26.0	26.2	26.1	31.2

Source : Airport and Aviation Services

Export Air Freight Traffic at Colombo
1988 - 1992



Source : AASL

COLOMBO AIRPORT

1990 PHASE

Attachment 15

7.3. Handling Agents

Air Lanka are the monopoly cargo handling agents at Katunayake Airport. Air Lanka staff are responsible for receiving perishable products, building pallets, stuffing containers and despatch to aircraft of export shipments on Air Lanka's services and those of all other airlines.

From the interviews carried out with a sample of foreign airlines operating from the airport, all were generally happy with the standards of handling offered. However, all of the airlines employ their own staff at the airport to supervise pallet building and other activities. All airlines agreed that there should be another, independent, handling agency appointed to provide competition, or even to replace Air Lanka. There were some complaints about the lack of staff at peak periods and the general level of training offered. There is a high turnover of trained handling staff, mainly because once a level of proficiency is reached people can compete for better paid jobs in the Middle East.

7.4. Cargo Allocation Policy

As previously described, Air Lanka experience considerable problems with fleet deployment and punctuality. Given these circumstances Air Lanka have adopted an allocation and off-load policy for each and every flight they operate. The Cargo Marketing and Sales Department indicate by the order of listing on the cargo manifest consignments to be off-loaded, if the requirement arises. Air Lanka state that precedence is always given to the shipment of :

i) diplomatic mail
ii) live animals
iii) perishable cargo
iv) general cargo

7.5. Cargo Handling Costs

Cargo handling costs are not identified separately to airlines operating at Katunayake. The cost of an aircraft turnround at Katunayake is billed as a single amount covering all services offered. Because of this, the cargo manager's of foreign airlines interviewed could not comment on the level of handling costs, compared to other stations.

Air Lanka were asked to supply details of the handling costs for a Tristar turnround at a number of airports on their route network. This information was not forthcoming.

7.6. Fuel Price at Katunayake Airport

The price for jet fuel at Katunayake Airport is set by the Ceylon Petroleum Corporation. The official posted price for jet fuel at the airport is US$ 1.15 per litre. It is likely that Air Lanka pay significantly less than this, probably around US$ 0.90 per US gallon. Contract fuel prices at airports are subject to secrecy. It is considered that Katunayake is expensive, compared with other airports in the Region. The price of fuel at Indian airports is considered to higher than at Katunayake.

7.7. Landing Charges, Parking Charges and Navigation Fees at Katunayake Airport

A comparison of the charges levied at Katunayake and at Hong Kong, Bangkok, India and Australia is shown in Table 12 below.

Table 12. Airfield Charges: Katunayake, Hong Kong, Bangkok, India and Australia

Currency: US$ Aircraft: Tristar - 200	Katunayake	Hong Kong	Bangkok	India	Australia
Landing - Peak Time	860.00	1616.50	828.10	1096.50	1186.50
Parking (2 hour turnround)	Nil	Nil	Nil	Nil	Nil
Navigation	200.00	Unspecified	Unspecified	120.00	538.00

Source : AASL/IATA Airport & En Route Aviation Charges Manual

On the basis of this analysis, Katunayake is not an expensive airport compared to airports in competitor countries.

TERMS OF REFERENCE, METHODOLOGY AND CONTACTS

This report has been prepared in response to Terms of Reference dated 5 January 1993.

The terms of reference required the report to investigate:

- the current cargo capacities of scheduled services operated from Colombo by Air Lanka and other airlines to Hong Kong, Singapore, Dubai, London, Amsterdam and US destinations.

- the amount of cargo capacity used for the transport of horticultural commodities, live fish and other products in total and in particular to Hong Kong, Singapore, Dubai, London, Amsterdam and US destinations.

- the constraints faced by fresh produce and live fish exporters under current conditions of air freight services.

- the constraints faced by Air Lanka and other airlines operating from Colombo under current conditions of air freight services.

- reforms to current freight administration, information and operational procedures to optimise use of available resources.

- the current priorities for allocating cargo space to different categories of cargo.

- the demand for air freight capacity from the fresh horticultural and live fish exporters in the years 1990-1992 and the projected demand over the period 1993-2000. Projected demand should be viewed from two standpoints; firstly with air freight services being expanded in line with current policies and secondly, with a revised structure expanded in line with the recommendations resulting from this report.

- marginal cargo rates and minimum breakeven costs for fresh horticultural and live fish exports to Hong Kong, Singapore, Dubai, London, Amsterdam and US destinations for the Tristar aircraft.

- the effect on Air Lanka of a price reduction for space sold to the exporters of horticultural products and live fish.

- the effect on Air Lanka of reserving significant cargo capacity to the exporters of horticultural products and live fish.

- the reactions of foreign airlines if Air Lanka were to reduce prices for the transport of horticultural products and live fish.

- under what circumstances might the foreign airlines be encouraged to reduce prices and make more capacity available for the transport of horticultural products and live fish.

- the development of action plans, in consultation with Air Lanka and the foreign airlines, to introduce lower rates and make more capacity available for fresh produce and live fish exports.

- the efficiency of cargo handling methods at Colombo Airport.

- the cost-effectiveness of the cargo handling service offered at Colombo airport, by comparison with other airports in the Region.

- the effect of air freight handling charges on the total air freight cost structure of Air Lanka and other airlines.

- ways to increase the competitiveness of the cargo handling services.

- the likelihood and effect of more dedicated freighter aircraft serving Colombo.

- the competitive position of Sri Lanka's air freight market rates for the export of fresh horticultural produce and live fish exports to Hong Kong, Singapore, Dubai, London, Amsterdam and US destinations, compared to the market rates offered to those points from Australia, India, Thailand and Kenya.

1.1. Methodology

Chris Whittle, an air freight specialist, visited Colombo from the 5 to 19 February, 1993 to carry out the study. Meetings were held with:

i) representatives from the Exporters Associations' of fresh fruit and vegetables, cut flowers, plants and foliage, live fish, edible fish, fresh and frozen fish.

ii) exporters

iii) Air Lanka and 6 foreign airlines (Gulf Air, Emirates, Korean Airlines, KLM, Cargolux, Singapore Airlines), plus one off-line carrier, British Airways.

iv) representatives from the Export Development Board (EDB) dealing specifically with fruit and vegetable, live, fresh and frozen fish exports.

v) freight forwarders.

vi) representatives of the Ministry of Lands, Irrigation and Mahaweli Development and the Mahaweli Authority.

vii) the Department of Civil Aviation

viii) representatives from Airport and Aviation Services (Sri Lanka) Ltd.

ix) representatives from the sea-freight industry

x) representative from the Ceylon Institute of Scientific and Industrial Research, (CISIR).

xi) Sri Lanka Customs

xii) representatives of USAID, the Mahaweli Enterprise Development Project (MED) and the Mahaweli Agriculture & Rural Development Project (MARD).

A full list of the contacts made is attached.

Contacts made during C.Whittle's visit to Colombo, 4th-19th February 1993

i) Export Development Board :

Mr K. Gunaratnam	Chairman
Mr Daya Wijayawardena	Director, Agriculture Export Division
Mr M.Z.M. Farhad	Assistant Director, Agriculture Export Division
Dr D.E.M. Weerakoon	Deputy Director (Policy & Planning)
Mrs W.M.D. Weerakoon	Deputy Director - Data Processing

ii) Exporters and Exporters Associations :

Mr Siri Wanniarachchi	Ocean and Tropical Fish Exports (Pvt) Ltd. President, Association of Live Tropical Fish Exporters of Sri Lanka.
Mr Shanthi Wijesinghe	Consolidated Business Systems Ltd. President, Sri Lanka Fruit and Vegetable Producers, Processors and Exporters Association.
Mr D.J.V. Perera	Princess Enterprise (Pvt) Ltd. Secretary, Sri Lanka Fruit and Vegetable Producers, Processors and Exporters Association.
Mr Arne Svinningen	Green Farms Ltd Sri Lanka, President, Floricultural Produce Exporters Asscciation.
Mr A.S.M. Muzzammil	Sea & Land Foods (Pvt) Ltd. President, Fresh and Frozen Fish Exporters Association.

iii) Exporters :

Mr Roger Ratnayake	Samudra Aquarists Fish Gate Pvt Ltd. - Ornamental and live fish.
Mrs Dawn S.Austin	NIDRO - Fruit and Vegetables.
Mr Zahedi Alif	Expolanka Limited - Fruit and Vegetables
Mrs Hubert Jayakody	Huejay Group - Cut Flowers.
Mr W.S. Jason	Agro-Marine Ltd. - Live, edible fish.
Mr C.B. Jayasundera	Andriesz Mariculture Ltd. - Chilled and frozen fish

iv) Airlines :

Air Lanka -

Mr Dunstan Jayawardena	Chairman/Managing Director
Mr D.P.C. Lawrence	Financial Advisor to the Chairman/Managing Director
Mr Naveen Gunawardene	Manager, Cargo Development
Mr Bede Masilamony	Cargo Services Superintendent
Mr Nalin Rodrigo	Marketing Executive (Cargo Sales Planning and Development)
Miss Mayura K Wijesinghe	Senior Executive - International Relations

British Airways

Mr Aruna Ratnayake	Cargo Manager Sri Lanka

Cargolux -

Mr H.R.S. Weerasinghe	Cargo Manager

Emirates -

Mr Shennal Angunawela	Cargo Manager
Mr Kanishka Wijesinghe	Sales Manager Cargo - President of the Sri Lankan Cargo Airlines Association

Gulf Air -

Mr Sarath E.Jayasinghe	Cargo Manager

KLM -

Mr Aubrey de Zilva	Manager Airlines Division/Freight Sales

Korean Air -

Ms Deepthi de Saram	Director/General Manager
Mr Priyantha Mendis	Cargo Manager

Singapore Airlines -

Mr Duleep Samaranayake	Cargo Manager
Mr Shiranka Leo	Sales & Services Executive (Cargo)

v) **Department of Civil Aviation :**

Mr M.L.U. DE S Malalgoda	Director General of Civil Aviation
Mrs C.R. Piyatissa	Statistics Section

vi) **Airport and Aviation Services (Sri Lanka) Ltd. :**

Lt Col. K.M.S. Perera	Chief Commercial/Properties
Mr John de Saram	Consultant

vii) **Freight Forwarders :**

Ace Cargo (Pte) Ltd.:

Mr Rohantha Peiris	Director/General Manager
Mr Bevis Kelly	Manager - Air Freight

Dart Express :

Mr Martin Abayasekara	General Manager

Expolanka Freight Ltd :

Mr Hanif Yusoof	Director - also President of the Sri Lankan Air Freight Forwarders Association
Mr Chandana Rodrigo	Marketing Manager

Roton-Vander (Freighting) Ltd :

Mr Mana Jayawardana	Director
Mr Ravi Karunanayake	Director/General Manager

viii) **Others :**

Mr T.D.S.A. Dissanayaka	Director, Federation of Chambers of Commerce & Industry of Sri Lanka
Mr H.N. Gunewardene	Director, Aitken Spence & Co. Ltd.
Mr Shiran Fernando	Director, Tess (Pvt) Ltd., Tess Agro (Pvt) Ltd.
Mr R.N. Bopeartchy	Chemical Industries (Colombo) Ltd.
Mr H. Harmon	Marketing, Mahaweli Agriculture & Rural Development Project (MARD)
Mr M.West	MARD
Ms J. Boardman	MARD
Mr Wasantha Talagala	General Manager, Ceylon Shipping Corporation
Dr Shanthi Wilson	Team Leader, Post Harvest Technology Unit, Ceylon Institute of Scientific and Industrial Research
Mr Gunarathna	Statistician, Customs Department.
Mr Gary Alex	USAID
Mr G.M. Premachandra	Secretary, Ministry of Lands, Irrigation and Mahaweli Development
Mr K.H.S. Gunatilake	Director General, Mahaweli Authority of Sri Lanka
Mr Ariya Abeysinghe	Director, Employment, Investment and Enterprise Development (EIED)
Mr Sunil Amerasinghe	Manager, EIED
Dr Jim Finucane	Chief of Party, Mahaweli Enterprise Development Project (MED)
Mr Jayantha Jayewardene	Deputy Chief of Party/MED

Exports of Cuttings, Fresh Cut Flowers, Plants and Foliage

Code	Description	1990 Quantity (Kgs)	1990 Value (LKR000's)	Value - LKR/Kg	1991 Quantity (Kgs)	1991 Value (LKR000's)	Value - LKR/Kg	Jan-Jun'92 (Kgs)	Jan-Jun'92 (LKR000's)	Value - LKR/Kg
060110	Bulbs, Tubers, Tuberous Roots,	14764	605	41	5631	719	128	753	448	595
060120	Bulbs, Tubers, Tuberous Roots,	53765	6966	130	106016	20044	189	54338	9629	177
Total 0601	Bulbs, Tubers, Tuberous Roots,	68529	7571	110	111647	20763	186	55091	10077	183
060210	Unrooted cutting and slip	37347	32314	865	215017	48641	226	92328	9420	102
060220	Edible Fruit or Nut Trees	1173	199	170	3940	681	173	134	119	888
060230	Rhododendrons and Azaleas	350	259	740	0	0	ERR	0	0	ERR
060240	Roses	1195	322	269	881	968	1099	1570	421	268
060291	Mushroom Spawn	55025	12058	219	116749	29700	255	75274	18592	247
060299	Other	245621	46837	191	246096	52837	215	178201	35784	201
Total 0602	Other Live Plants	340711	91989	270	582683	132917	228	347507	64336	185
060310	Fresh cut flowers	135373	27693	205	145488	29720	204	23929	9972	417
060390	Other	14501	3350	231	44044	2600	59	2319	541	233
Total 0603	Cut Flowers and Flower Buds.	149874	31043	207	189532	32320	171	26248	10513	401
060410	Mosses and Linchens	10533	203	19	12813	2436	190	4061	1158	285
060491	Fresh Mosses and Linchens	38376	13641	355	385691	34508	94	193929	19023	98
060499	Other	230974	46492	201	182124	40851	224	131840	39326	298
Total 0604	Foliage, Branches, Other Parts o	279883	60336	216	580628	77797	139	329830	59507	180

Exports of Live Fish, Edible and Frozen Fish

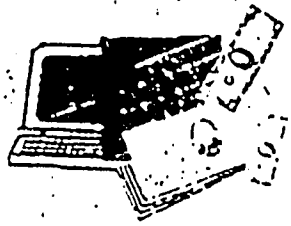
Code	Description	1990 Quantity (Kgs)	1990 Value (LKR000's)	Value - LKR/Kg	1991 Quantity (Kgs)	1991 Value (LKR000's)	Value - LKR/Kg	Jan-Jun'92 (Kgs)	Jan-Jun'92 (LKR000's)	Value - LKR/Kg
030110	Ornamental Fish	129671	57097	440	98084	43797	447	83354	38596	609
030191	Trout	0	0	0	390	274	703	0	0	0
030193	Carp	2951	444	150	3595	476	132	0	0	0
030199	Other	67112	38576	575	97836	49108	502	37687	35144	609
Total 0301	Live Fish	199734	96117	481	199905	93655	468	121021	73739	609
030219	Fish Fresh or Chilled, Other	2617	257	98	12283	614	50	0	0	ERR
030229	Other	26835	1068	40						
030231	Albacore, Longfinned Tunas	0	32	ERR	1973	71	36	0	0	ERR
030232	Yellowfin Tunas	3573	534	149						
030239	Other	1596	162	102	4890	514	110	0	0	ERR
030240	Herrings	0	0	ERR	20	3	150	0	0	ERR
030250	Cod	0	0	ERR	0	0	ERR	16200	438	27
030264	Mackerel	33864	1559	46	0	9	ERR	5	2	400
030265	Dogfish & Other Sharks	0	581	ERR						
030266	Eels	0	0	ERR	0	0	ERR	1	2	2000
030269	Other	156	19	122	160	25	156	0	0	ERR
030270	Livers and Roes	0	0	ERR	0	0	ERR	70	3	43
Total 0302	Fresh or Chilled Fish	68641	4212	61	19126	1236	65	16276	445	27
030310	Frozen Salmon	0	0	ERR	54	29	537	54	17	315
030321	Trout	0	0	ERR	700	200	286	0	0	ERR
030329	Other	154650	7096	46	10458	1278	122	550	204	371
030331	Halibut	16	9	563						
030339	Other	562	127	226	526	187	356	0	0	ERR
030341	Albacore, Longfinned Tunas	0	52	ERR	0	13	ERR	0	0	ERR
030349	Other	137	11	80	332956	41822	126	0	0	ERR
030360	Cod	5	2	400						
030371	Sardines	0	7	ERR	0	8	ERR	0	0	ERR
030374	Mackerel	0	59	ERR	20	11	550	0	0	ERR
030379	Other	10	1	100	532	70	132	0	0	ERR
030380	Livers and Roes	0	0	ERR	8191	187	23	0	0	ERR
Total 0303	Frozen Fish	155380	7364	47	353440	43806	124	604	221	366
030410	Fish Fillets,Fish Meat,Fresh or C	0	0	ERR	150	4	27	0	0	ERR
030420	Frozen Fillets	67764	12404	183	0	0	ERR	40	4	100
030490	Other	65	28	431	196	11	56	0	0	ERR
Total 0304	Fish Fillets,Fish Meat,Fresh or C	67829	12432	183	346	15	43	40	4	100
030611	Rock Lobster	3210	369	115	0	0	ERR	0	0	ERR
030612	Lobsters	201925	116494	587	174636	128820	738	60280	49717	825
030613	Shrimps and Prawns	1494077	508368	340	941617	457359	486	539652	263867	489
030614	Crabs	38140	4632	121	31327	4536	145	26390	3570	135
030619	Other	150840	22904	152	69528	10756	155	74471	12305	165
030621	Rock Lobster	246	17	69	0	103	ERR	0	0	ERR
030622	Lobsters	18707	8091	433	13489	11679	866	2571	1983	771
030623	Shrimps and Prawns	2774	905	326	1068	309	290	53297	20925	393
030624	Crabs	281826	27936	99	291614	34810	119	271887	32901	121
030629	Other	49	13	265	821	170	207	2537	266	105
Total 0306	Crustaceans	2191794	691729	316	1524098	648542	426	1031083	385514	374

Exports of Vegetables

Code	Description	1990 Quantity (Kgs)	1990 Value (LKR000's)	Value - LKR/Kg	1991 Quantity (Kgs)	1991 Value (LKR000's)	Value - LKR/Kg	Jan-Jun'92 (Kgs)	Jan-Jun'92 (LKR000's)	Value - LKR/Kg
070110	Seed Potatoes	16672	282	17	9430	537	57	9680	520	54
070190	Other	81968	2694	33	17716	1201	68	2678	141	53
070200	Onions, Shallots,Garlic, Leeks a	19660	781	40	35718	1344	38	15671	540	34
070310	Onions and Shallots	11166	356	32	1235	33	27	799	31	39
070320	Garlic	5418	193	36	15477	1067	69	2148	377	176
070390	Leeks & Other Alliaceous Veg.	165058	3928	24	626515	18461	29	337422	9643	29
070410	Cauliflowers and Headed Brocco	23762	563	24	4114	175	43	2865	143	50
070490	Other	5874	248	42	5072	156	31	1497	70	47
070511	Cabbage Lettuce	23330	617	26	36966	1003	27	25741	507	20
070519	Other	552	27	49	2183	125	57	702	31	44
070529	Other	717	17	24	3614	128	35	36086	37	1
070610	Carrots and Turnips	18664	485	29	33165	905	27	15058	407	26
070690	Other	63398	1750	28	5678	188	33	6718	264	39
07070001	Gherkins	315920	9400	30	46644	966	21	684	14	20
07070002	Cucumber	6512	115	18	0	0	0	11350	1520	134
070820	Beans	2308	97	42	8505	245	29	4447	108	24
070890	Other Leguminous Veg.	3031	92	30	336	8	24	776	17	22
070910	Globe Artichokes	1170	46	39	2321	77	33	1983	52	26
070930	Aubergines	6598	192	29	3646	78	21	1515	36	24
070940	Celery	496	31	62	1931	101	52	1074	46	43
070951	Mushrooms	41540	5230	126	557	155	278	2509	524	209
070960	Capsicum	264357	5316	20	522576	12310	24	257243	6666	26
070970	Spinach	260	3	12	633	12	0	593	11	19
070990	Other	2539785	71980	28	1533546	142525	93	1017085	31039	31
071010	Potatoes	14077	632	45	15282	769	50	11570	785	68
071021	Peas	1009	23	23	488	10	20			
071022	Beans	5319	132	25	6465	158	24	6659	115	17
071029	Other	134	10	75	4590	123	27	14365	422	29
071030	Spinach	45	1	22	115	2	17			
071040	Sweet Corn	333	8	24	0	0	ERR			
071080	Other Vegetables	282140	8466	30	2180	94	43	986	42	43
071090	Mixtures of Vegetables	17129	783	45	22057	469	21	1736	105	60
071110	Onions	15596	257	16	65680	481	7	15418	304	20
071120	Gherkins	0	0	ERR	6989720	188648	27	0	0	0
07114001	Gherkins	6555815	214627	33	0	0	0	1999479	50352	25
07114002	Cucumber	29321	1203	41	0	0	0	1320	1427	1081
071190	Other Veg. Mixtures of Veg.	22749	829	36	3178	335	105	15074	389	26
071210	Potatoes	304	57	188	65	73	1123			
071220	Onions	85	7	82	3043	2687	883	1694	38	22
071230	Mushrooms and Truffles	19565	2991	153	15	3	200			
071290	Other Veg. Mixtures of Veg.	5957	2006	337	15840	1015	64	12696	527	42
07131001	Black Gram	4518850	57534	13	444143	4904	11	0	0	0
07131003	Green Gram	1472	53	36	1102	56	50	203	13	64
07131009	Other	2367	69	29	1874	140	75	350	37	106
071320	Chickpeas	223	18	81	258	19	74			
071332	Small Red Beans	150	7	47	100	4	40			
071340	Lentils	11170	518	46	500	40	80	21496	668	31
071390	Other	186	75	452	836	84	100	360	39	108
071410	Manioc (Cassava)	290169	4952	17	735042	19796	27	268829	7485	28
071490	Other	45232	1411	31	135756	3716	27	52535	2131	41
Total 07	Edible Veg.& Certain Roots & Tu	15456595	401096	26	11365907	405445	36	4182043	117823	28

Exports of Edible Fruits and Nuts

Code	Description	1990 Quantity (Kgs)	1990 Value (LKR000's)	Value - LKR/Kg	1991 Quantity (Kgs)	1991 Value (LKR000's)	Value - LKR/Kg	Jan-Jun'92 (Kgs)	Jan-Jun'92 (LKR000's)	Value - LKR/Kg
08011001	Coconut in the shell	22191224	125378	6	24434297	152315	6	11537315	98839	9
08011002	Desiccated Coconut	52673182	1423194	27	46814682	1536750	33	26771005	1164384	43
08011009	Other	295852	3933	13	349235	9055	26	103101	2663	26
080120	Brazil Nuts	0	0	ERR	2	1	500	3002	213	71
080130	Cashew Nuts	1281432	277181	216	1102479	269721	263	353200	85349	242
080211	Other Nuts in Shell	10000	31	3	0	0	ERR	0	0	ERR
080212	Shelled Nuts	3	0	0	0	0	ERR	0	0	ERR
08029001	Arecanuts	3077434	78947	26	2585216	92400	36	423922	21764	51
08029009	Other	31384	848	27	129470	3386	26	15300	633	41
Total	0801,0802 Coconuts and other n	79560511	1909510	24	75415381	2083628	28	39206845	1374045	35
080300	Banana (Incl.Plantains)	1579	70	44	53336	1671	31	1530	84	42
080410	Dates	4273	75	18	17290	418	24	6840	124	18
080420	Figs	450	12	27	4157	349	84	7692	529	69
080430	Pineapples	615799	14088	23	823661	21894	27	571610	12776	22
080440	Avocados	9353	371	40	2843	178	63	215	11	51
08045002	Mangoes	1903	229	120	8435	523	62	4432	162	37
08045003	Mangosteens	27	29	1074	408	57	140	75	1	13
080510	Oranges	539	42	78	908	187	206	295	20	68
080520	Mandarins	30	1	33	140	13	93	20	6	300
080530	Lemons	16297	860	53	17119	851	50	8013	338	42
080540	Grapefruit	3215	202	63	918	85	93	0	0	ERR
080590	Other	2168	98	45	7741	304	39	1432	77	54
080610	Fresh Grapes	6830	1771	259	114	47	412	0	0	ERR
080620	Dried Grapes	120	70	583	348	60	172	0	0	ERR
080710	Melons	30	35	1167	30	1	33	0	0	ERR
080720	Papayas	1670	41	25	6010	181	30	1449	32	22
080810	Apples	238	19	80	1471	86	58	7640	288	38
080820	Pears and Quinces	804	116	144	2294	297	129	940	161	171
080910	Apricots	124	15	121	2549	78	31	0	0	0
080930	Peaches	541	11	20	686	15	22	306	6	20
080940	Plums and Sloes	4765	141	30	1016	139	137	0	1	-
081010	Strawberries	44769	1942	43	8892	1264	142	41254	1605	39
081020	Raspberries, Mulberries, Loganb	240	34	142	0	0	ERR	0	0	ERR
081030	Black,White or red Currants	8372	1910	228	884	300	339	0	0	ERR
081040	Cranberries, Bilberries	910	13	14	0	0	ERR	0	0	ERR
081090	Other	851735	21496	25	452133	13138	29	374027	11048	30
Total	0803-0810, Fresh Fruit	1576781	43693	28	1413883	42136	30	1027770	27249	27
081110	Strawberries	2131	275	129	3104	472	152	5	1	200
081120	Raspberries, Blackberries, Mulb	3530	432	122	0	0	ERR	0	0	ERR
081290	Other	1668	321	192	71577	109	2	1406	34	24
081310	Apricots	20005	352	18	0	0	ERR	0	0	ERR
08134001	Tamarind	696672	3903	6	3360081	24563	7	1245738	11378	9
08134009	Other	121830	2427	20	71997	2419	34	44293	1361	31
Total	0811-0814, Frozen,Preserved,Dr	845836	7710	9	3506759	27563	8	1291442	12774	10



ECONOMY AND BUSINESS

The Commercial Bank of Ceylon opened its 29th branch in Kandana on February 11, 1993 offering the community a comprehensive and efficient banking service.

This new branch is expected to provide all the banking

Air Lanka disappoints European importers

EDB frantically trying to find a solution

The Export Development Board is now frantically trying to consolidate the success of Expo '92 by attempting to resolve a dispute between Air Lanka and exporters of perishable cargo to Europe.

Last Wednesday the EDB called a meeting between several exporters associations and Air Lanka to find a solution to the problems shippers faced in the national carrier having cancelled a direct cargo flight to Brussels and off-loading other Europe bound cargo at the last moment from other flights.

A top official of the EDB who does not wish to be identified was very conciliatory. He said: "We must understand the problems faced by Air Lanka as well." He told the Island Air Lanka was not able to charter flights for these exports since there weren't sufficient cargo. However, they were attempting to resolve the conflict.

An Air Lanka spokesman in charge of handling cargo said they would take cargo from Colombo to Zurich and Amsterdam. It was for the importers in Europe to instruct the mode of shipment to the destined destination.

But importers in Brussels and other European cities this was vexatious since it meant delay in clearing the cargo and supply to the buyers. Besides, such delay would cause a loss since they were mainly perishable goods.

A business intermediary in Brussels who had successfully negotiated with European importers and Sri Lankan exporters at Expo 92 for increased export business from Sri Lanka has written to the authorities expressing the fear that European importers would cancel their orders in view of Air Lanka cancelling the Friday flight to Brussels direct from Colombo.

The letter says:

"My client Messrs. Maeghe-Delfosse has informed me that Air Lanka had taken the decision to cancel the direct flight Colombo/Brussels on Friday.

Mr. Delfosse who specialises in import of ornamental tropical fishes is extremely concerned about the decision taken by Air Lanka and which has created numerous problems for him in regard to his supplies from Sri Lanka.

Some of the inconveniences he has had to suffer are as follows:

— not notifying him of change of flight in time

— his having to send a vehicle with driver to Amsterdam airport to clear and collect the fish

— delay in delivering the supplies to his clients etc.

As you may be aware, I have been able to persuade this client to start importing from Sri Lanka again only because of this Friday flight which was coming to Brussels.

You would also note that he has contractual obligations with John Keells to obtain supplies every fortnight.

I presume that you realize that he would be compelled to cancel his purchases if there are no regular flights on Friday to Brussels.

I wish to also mention that there are several other companies in Belgium who were keen on using Air Lanka flight to Brussels to import.

— seafood fresh and frozen (Tipeco sprl)

— ornamental tropical fish (J. C. Delrue)

— ornamental tropical plants (Etn. Botelberghe)

— Foliage (Pierre Piron sprl)

This was a direct result of their visiting Expo 92 last November and I am afraid these clients will now have second thoughts of importing these items from Sri Lanka.

The clearance of these products which are highly perishable should be done without any delay as well as their distribution. Due to the Belgian customs who are closed on weekends this is only possible during a weekday which explains the importance of the Friday flight for cargo.

I thought I would bring this to your notice as this is not helping Sri Lanka to find markets for its products to this country.

(ERIC)

Rs. two lakh consignment to be discarded

A consignment of fresh fruits and vegetables worth Rs. 251,000/- destined for Zurich had to be discarded after Air Lanka authorities had cancelled the cargo reservations at the last minute.

A spokesman for the company concerned who does not wish to be named told the Island that they had been exporting vegetables and fruits twice a week to Zurich for sometime. They had always been using Airlanka cargo transport service to Zurich. The spokesman said that last week they had made reservations on Aldenka flight UL 567 on Sunday to transport the consignment of 2100 kg of fruits and vegetables.

The spokesman added that after they had got Customs clearance of the goods Airlanka authorities had informed them that their reservations were cancelled. They had not been given a reason for the cancellation.

Since these items were perishable they were unable to keep them to be exported on a subsequent date, the spokesman added. The company hoped they could donate the fruits and vegetables to an orphanage, instead of discarding it.

Several other companies which had made reservations on that particular flight were faced with the same problem. The spokesman quipped: "This was not the first time the national airline has let us down."

Airlanka Cargo Manager was unavailable for comment. But a airline source stated that flight could have been overbooked, in which case the exports were carried on a first come first serve basis.

Shivanthe Fernandopulle

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MED/EIED PUBLICATIONS AVAILABLE

Local Market for Pickled Products (December 1990)

Non Farm Small Scale Enterprise Credit on Selected Mahaweli Systems, Geoffrey Peters and M.W. Panditha (December 1990)

Crop Profiles - Spices, Herbs and Aromatics, L. Denzil Phillips (July 1991)

Study of the Tourism Development in the Uda Walawe (July 1991)

Potential for Silver Skin Onions in the Mahaweli, Walter Nueberg (August 1991)

Nursery Development of Papaya and Mango, Papaya Growers' Guide and Technical Notes for Business Plan for Mixed Fruit Cultivation Investment, Ben Hatfield (November 1991)

Dehydrated Fruit Processing Opportunities and Trends in Sri Lanka, Wanchai Somchit, (November 1991)

An Evaluation of the Entrepreneur Development Programmes, Dr. Susan Exo and Hina Shah, (December 1991)

Aromatics PIP Interim Report on Trials Establishment, Dr Thomas Davies (December 1991)

Agro-Business Financing Review, Dennis De Santis (December 1991)

Inegrated Fruit Drying, juicing, Pulping project - Prep Feasibility Study, Michael Smedley, Ben Hatfield and Wanchai Somchit (December 1991)

Cold Chain Requirements for Uda Walawe, Fredrick E. Henry (March 1992)

Field Manual for Processing Tomatoes, Peter Florance (March 1992)

Processing Tomato Trials in Mahaweli System H, Peter Florance (March 1992)

Processing Tomato Trials in Mahaweli System C, Peter Florance (March 1992)

Dried Fruit Processing in the Mahaweli, Dr. Kamal Hyder (September 1992)

Feasibility Study on Commercial Potential of Snake Venoms in Mahaweli Systems, Anslem de Silva, (January 1993)

Census of Mahaweli Enterprises and Employment (January 1993)

Most publications are priced at Rs.100/-. The publications are available at the MED Office at 8th Floor, Unity Plaza, Colombo 4. (inquiries, Ph. 508682-4)

An EIED publication entitled - "Information Available for the Mahaweli Investor", is also available at the MED Office.