CURRENT TRENDS IN THE TEA SECTOR

G. Jayanth

The share of tea in the total export earning declined to 26% last year (from 48% in 1978).

During the past decade, the highest volume exported of 219.8 million kilo grams was recorded in 1988. But this dropped to 204.2 million kilograms last year. In terms of export earnings this amounted to Rs 12,298 million in 1988 and Rs 13,664 million in 1989. This increase in export earnings in 1989 was mainly due to better unit prices (even though export volume decline). During the current year from January to June, the total exports were 97.7 million Kgs and export earnings were Rs 9,089 million. This shows an increase of 8.2% in volume terms and 72.2% in value terms.

The most important development in the last decade was the emergence of the Middle Eastern countries as the major buyers of Sri Lanka tea and the decrease in purchases by the traditional buyers from Europe, United Kingdom and North America. The purchases by the Middle Eastern countries as a whole increased from 84.4 million Kgs in 1980 to 118.9 million Kgs in 1989 (46% and 58% of the total tea exports in 1980 and 1989) while purchases by the EEC countries decreased considerably from 32.9 mn.Kgs. in 1980 to 24.3 million Kgs in 1989 (amounting to a drop in their share from 18% to 12%).

TABLE 1
Country Classification of Tea Exports
(Percentage of total volume)

Country	1980	1983	1986	1989
Middle East Countries	45.72	56.49	57.56	58.26
European Economic Community	17.86	11.37	13.62	11.92
Other Industrial Countries	N.A.	11.46	9.49	8.62
Other Countries	N.A.	18.68	19.33	21.20
Total	100.00	100.00	100.00	100.00

Source: Cental Bank of Sri Lanka

Among the Middle Eastern countries the United Arab Republic (UAR) and Iraq continued to be the biggest buyers of Sri Lanka tea. In 1989 Iraq purchased Rs 1,403 million worth of tea (24.2 mn Kgs.) This was nearly 12% of that year's total exports. Other two important buyers were Iran and Saudi Arabia. Their market share was 6% and 5% respectively. The share of Kuwait decrease from 5% in 1981 to 1% in 1989. Apart from the Middle Eastern countries, Pakistan and United Kingdom also are buying large quantities of tea from Sri Lanka. But United Kingdom's purchasing rate is very low compared to the previous years (see table).

Since 1984, Sri Lanka's tea production has shown an increase. In 1988 it recorded a peak level of 226.9 million Kilograms. The elevation wise tea production changed as well. The output of low grown tea increased significantly while the output in other elevation based categories decreased. During the period 1970-1989 high grown teas have lost 6% of the total hectarage under cultivation and the mid grown and low grown teas have lost 15% and 1% respectively. During last year, tea production dropped to 207 million Kgs which was even below the 1984 level, civil disturbances being the major contributory factor. As a result, normal working pattern of the plantation industry was disrupted and a number of tea factories were damaged or destroyed. However, during the period from January to August this year, tea production has increased to 159.4 million Kgs from 130.9 million Kgs last year (for the same period)-the increase in quantity being 21.7%. Favourable weather conditions has been the most important factor that has contributed to this change.

TABLE 2
Production of Tea (Mn. Kgs)
(1975-1990)

Period	High	Medium	Low	Total
1975-1979	76.58	65.54	62.72	204.8
1980-1984	74.32	54.00	66.90	195.3
1985-1989	76.06	53.24	87.22	214.5
1989*	48.29	32.08	50.59	130.9
1990*	51.80	36.07	71.57	159.4

* January – August

Source: Broker's Report

In the boom year of 1984, annual average price of tea at the Colombo auction was Rs 62.79 per Kg. In 1986 it dropped to Rs 30.68 but during the following two years it showed a gradual increase. At the beginning of the last quarter of the previous year, this improvement further intensified and reached a peak point of Rs 80.73 per Kg. In March this year, it again showed a slight decrease recording a price of Rs 71.40 per Kg in September. This favourable market price however was brought about by a reduction in the tea supply at the world market – mainly because greater proportion of Indian tea was diverted for her domestic consumption. Apart from that, purchases by the USSR from Colombo

market increased due to a crop failure in the USSR. The decline in the exchange rate also contributed greatly to the increase in the price of tea.

As a result of the rapidly increasing cost of production, the marginal revenue diminished. The marginal revenue from tea was actually negative in the years 1980-82. In this period, the factors that contributed to high costs were the increase in the input, high wages and high fuel cost. However, since 1983, the marginal revenue once again began to increase due to the fact that the rate of price increase was more than the rate of increase in the cost of production (see table). The average cost of production of made in 1989 reached around Rs 50 per Kg. It shows a three fold increase against the figure in 1979.

TABLE 3
Cost of production and Average price
(Colombo Auction Rs. per kg.)

Year	Cost	Gross	Nett
1979	13.43	12.30	11.14
1982	22.68	23.44	22.52
1985	35.00	39.01	35.39
1988	43.98	42.77	41.59
1989	49.70	54.61	52.16
1989*	N.A.	49.79	48.32
1990*	N.A.	71.52	65.63

* January – September

Sources: Central Bank Report & Brokers Reports

Due to the Gulf Crisis, Iraq ceased to operate as a buyer from the 1st sale of September.

TABLE 4
Destination of Tea Export (Quantity mn. kgs)

Country	1990 (Jan.-July) Volume %		1989 (Jan.-July) Volume %	
Iraq	17.2	(14.4)	11.7	(11.2)
U.A.R.	16.3	(13.6)	14.9	(14.3)
Iran	13.7	(11.4)	4.0	(3.8)
U.S.S.R.	11.5	(9.6)	3.6	(3.5)
Saudi Arabia	7.0	(5.8)	7.3	(7.0)
U.K.	6.8	(5.7)	7.0	(6.7)
Syria	6.0	(5.0)	6.2	(5.6)
Libiya	4.9	(4.1)	2.4	(2.3)
Pakistan	3.8	(3.2)	12.2	(11.7)
Italy	3.2	(2.7)	1.9	(1.1)
Japan	3.1	(2.6)	2.3	(2.2)
Jordan	2.9	(2.4)	1.8	(1.7)
Yemen	2.4	(2.0)	3.8	(2.7)
U.A.E.	2.1	(1.8)	3.8	(3.7)
U.S.A	1.9	(1.6)	3.3	(3.2)
Other countries	16.9	(14.1)	18.7	(18.1)
Total	119.9	(100.0)	104.1	(100.0)

Sources: Brokers report

Contd from page 12

TABLE 5

RESERVES AND RESOURCES OF COMMERCIAL ENERGY

Country	(1) BITUMINOUS COAL Million Metric Tons				(2) LIGNITE & SUB-BITUMINOUS COAL Million Metric Tons				CRUDE OIL Million M/Tons	NATURAL GAS Billion Cubic Meters	URANIUM Metric Tons	
	Year of Data	Proved Reserves in place	Proved Recoverable Reserves	Estimated Additional Resources	Year of Data	Proved Reserves in place	Proved Recoverable Reserves	Estimated Additional Resources	Proved Recoverable Reserves (1981)	Proved Recoverable Reserves (1983)	Reasonably Assured Resources (1983)	Estimated Additional Resources (1983)
India	1981	26331	*	85547	1981	1581	1581	1943	471	420	32000	900
Pakistan		*	*	*	1979	145	102	310	13	450	*	*
Bangladesh	1981	1054	*	*	*	*	*	*	*	192	*	*
Sri Lanka	*	*	*	*	*	*	*	*	*	*	*	*

Note: * Not available
Source: U. N. Statistical Office

for cereal production. The considerable cultivable land potential and the degree of its underutilization can be judged from the following fact: South Asia has 25.4 percent of the cultivable land resources of the developing countries.8 The differential between the potential and actual agricultural output is understated when presented in terms of cereal production. This is because of wide differences in cropping patterns across the developing countries. Area specific potential and actual output show a considerably greater differential. For example the potential agricultural output in the Indus Basin is estimated to be three times the current output.9

Table 11, gives the extent of forest resources and the pace of depletion in the region. South Asia as a whole has a forest resource of 64.421 million hectares (closed plus open forest). It also has the largest river and irrigation system in the world. According to conservative estimates made by the UN statistical office, the technical potential for hydro electric power in South Asia is 124,750 Megawatts. That this may be highly underestimated is indicated by the fact that the same source gives for Pakistan a Hydroelectric potential of 19,600 Megawatts. On the other hand, an alternative source (Professor Kaparov) suggests a potential of 40,000 Megawatts on Pakistan's main rivers alone.10

An examination of the mineral wealth of South Asia shows it is rich in some minerals such as mica, iron, ore, coal, manganese, natural gas, and graphite. At current levels of production, on a world output basis, India ranks first in mica, sixth in coal, iron ore and manganese.11 Pakistan's major mineral product is natural gas with reserves of about 406,000 metric tons, cement, and to a much lesser extent chromite and salt.12 There have also been recent discoveries of copper but estimates on the size of the deposits are not yet available. In Sri Lanka gem stones and graphite are the principal minerals, with gems accounting, for 5 percent of all exports. Sri Lanka's graphite in terms of its purity is regarded to be unique in the world. It is many times more valuable on a per ton basis than amorphous graphite found elsewhere.13

4. Resource Potential Undermined

Tables 9 to 12 provide evidence of the extent of erosion of the human and natural resource base of South Asia. It appears that the region is rich in terms of trained manpower, cultivable land and irrigation resources as well as mineral wealth. (See Tables 3 to 7). Yet, much of this potential is not merely underutilized. However, what is even more serious for the future, is that because of a failure to provide food access, health, education, employment and inadequate attention to ecology, the human and natural resource base is being rapidly eroded. For example, because of inadequate diet for lactating mothers and poor health facilities, South Asia is losing 99 children before the age of one for every 1000 children born. Similarly, millions of children and adults die due to water borne diseases, since 68 percent of the population of South Asia does not have access over clean drinking water. A large proportion of the population that manages to survive lives in a state of malnutrition due to inadequate access over food, and is subjected to life long suffering from curable diseases because of inadequate health facilities. Of those few who

TABLE 6

ESTIMATED PRINCIPAL POTENTIAL RENEWABLE ENERGY RESOURCES (TONS OF COAL EQUIVALENT)

	(1) HYDROELECTRIC POWER		(2) GEOTHERMAL ELECTRIC POTENTIAL		(3) WOOD FROM FOREST PLANTATIONS		(4) TOTAL	
	Total 10a tons	Per Caput Tons/Year*	Total 10a Tons	Per Caput Tons/Year*	Total 10a Tons	Per Caput Tons/Year*	Total 10a Tons	Per Caput Tons/Year*
Africa	0.19	0.4	0.08	0.2	2.48	6.4	2.77	6.1
Asia	0.33	0.1	0.20	0.1	1.88	0.75	2.41	0.96
China, Vietnam N. Korea	(0.19)	0.2	(0.10)**	0.1	(0.56)	0.55	(0.85)	0.84
South & East Asia	(0.14)	0.1	(0.10)**	0.1	(1.32)	0.9	(1.56)	1.05
North America	0.19	0.5	0.21	0.6	2.44	6.7	2.84	7.8
South America	0.23	1.0	0.23	1.0	3.12	13.0	3.58	15.0
Europe	0.09	0.2	0.015	0.03	0.52	1.1	0.625	1.3
USSR	0.13	0.5	0.065	0.25	3.12	11.8	3.315	12.6
Oceania	0.025	1.1	0.18	8.2	0.52	23.6	0.725	33.0
World Total	1.19	0.25	0.96	0.22	14.08	3.1	16.25	3.61
LDC Total	0.80	0.25	0.51	0.16	7.48	2.33	8.79	2.74

Source: R. Revelle "Resources", in J. Fasland (ed.) Population and the World Economy Basil Blackwell, Oxford, 1982, Table 3.7.

manage to survive these hazards and succeed in acquiring an education, face unemployment in growing numbers. This is because of declining employment generation capability of the South Asian economies. The capital intensity of production for India, Pakistan and Bangladesh has increased significantly, while for Sri Lanka it has remained more or less unchanged. Thus, it can be suggested that the human resource base of South Asia is not merely underutilized, but is being actually eroded over time.

When we consider the cultivable land resources we discover that due to inadequate attention to drainage and soil conservation, desertification is occurring at a rapid rate. In Pakistan, for example, 25 percent of the unirrigated cultivable land has been converted into desert as the result of soil erosion;[14] similarly in India, 27 percent of the national area is affected by erosion which is occurring, at the rate of 75 metric tons per hectare per year.[15] When we consider the more valuable irrigated area we discover rapid depletion occurring due to salinization. For example, in Pakistan 40 percent of the irrigated area is already affected by salinization;[16] In India 27 percent of the irrigated area is already affected by salinization, and in Sri Lanka 23 percent.

The depletion of the existing relatively low forest cover in South Asia gives similar cause for concern. In Pakistan, out of total forest area of 2.5 million hectares, 0.1 percent a year are being depleted of trees;[17] India with a total forest resource of 56 million hectares is losing its forest at a faster rate (0.3 percent per year). Bangladesh with 0.9 million hectares has a depletion rate of 0.9 percent per year. Sri Lanka with a forested area of 1.66 million hectares is depleting this resource at the high rate of 3.5 percent, Nepal with a forest area of 2 million hectares has the highest depletion rate in South Asia, losing 4.1 percent of its forest every year.[18] These depletion figures are based on data provided by forest departments of the countries concerned and are highly understated. To get an idea of the degree of understatement consider the case of India. The forest department figure of annual deforestation is 132,000 hectares. On the other hand, India's Centre for Science and Environment reports that according to satellite data India is losing not 132,000 hectares a year, but as much as 1.3 million hectares annually.[19]

A brief review of the pollution levels of rivers in South Asia gives an equally bleak picture for this vital resource. Large deposits of fecal coliform, have been detected at significant levels in the major rivers of Bangladesh, India and Pakistan. What is more serious is that in some of these rivers the chemical waste from industry is going beyond the regenerative capacity of the river water. Evidence shows that large sections of some of the major rivers of South Asia have been rendered toxic.[20]

TABLE 7

ENERGY RESOURCES IN SOUTH ASIA 1983

	Primary b Energy Production (Percent)	Electricity Installed Capacity c (Percent)
South Asia Developing Countries	7.0	16.4
South Asia World	2.0	2.2

Notes:
(a) India, Pakistan, Sri Lanka, Nepal and Bangladesh.
(b) Solid fuels, liquid fuel, Natural gas, Other, expressed in million of metric tons of coal equivalent.
(c) Expressed in thousands of Kilowatts.
(f) Excludes China but includes Japan.

Source:
UNCTAD, Handbook of International Trade and Development Statistics, U.N. N.Y. 1985, Table 5 and 9

To avoid going over threshold levels of environmental damage and consequently entering into a permanent poverty trap, there is urgent need for devising new development strategies which directly address two crucial dimensions:

(1) Preserving and developing the human resource potential by providing access of over food, health, education, housing and employment.

(2) Preserving and protecting the natural environment.

The institutional framework for such a development strategy would involve first building grassroots organizations through which the community at the local level can participate in project formulation and project implementation. There needs to be a decentralization of administrative and economic power such that the people at the local level can participate in the decisions that of the institutional framework is an initiative at the regional level in South Asia, to collectively alleviate poverty and environmental damage, through the creation of regional level institutions for sharing technical know, devising new technologies, linking up grassroots organizations and overcoming bottlenecks to their development.

PART II
SUSTAINABLE DEVELOPMENT, GRASSROOTS INITIATIVES AND REGIONAL COOPERATION

The great challenge facing each of the countries of South Asia is to devise a new strategy of sustainable development, i.e., a development process that while improving the material welfare of all the people, at the same time, protects and preserves the natural and human resource base. At the institutional level, such a sustainable development strategy will involve developing and linking together two levels of social organization: The micro level grassroots organization and the macro, or National/Regional level. Let us briefly examine each of these levels.

1. Participatory Development at Grassroots Level.

What is required is a decentralization of administrative, economic and political power, through the creation of effective grassroots organizations. This is necessary so that the local community can have control over the decisions that affect their economic, social and natural environment. Sustainable development and effective democracy means organizing the local community to participate in the multi-functional tasks of formulating and implementing such projects as income generation, health, drinking water, education, soil preservation, water management and forestry.

It is only an integrated and participatory approach at the local level that can create a

TABLE 8

SOUTH ASIAN HUMAN RESOURCE EROSION IN 1980s

	Infant Mortality rate (age under 1) 1985	Population per physician 1981	Population per Hospital bed 1981-82	Daily Calorie supply per capita 1985	Illiterate population 15 years & over various years (% of total population) Total	Male	Female	Public expenditure on education as % of budget 1984	Percentage of total population without access to safe water supply (late 1970s)
India	99	3700	834	2189	65.5	52.3	80.8 (1971)	3.7	83.0
Pakistan	115	2910	1737	2169	73.6	64.0	84.8 (1981)	2.0	71.0
Sri Lanka	36	7460	530	2365	13.9	9.2	18.6 (1981)	2.8	60.0
Bangladesh	123	9700	4545	1999	74.8	62.7	86.8 (1974)	1.8	56.0
Nepal	133	25770	15271	2034	80.8	66.6	95.0 (1975)	1.8	68.0
South Asia	99.2	10606	2507.4	2133.8	61.7	51.0	73.2 (Mid-1970s)		69.5
Developing Economies	71	5660	N.A.	2470	N.A.	N.A.	N.A.		57.76
Industrial Market Economies	9	630	N.A.	3417	N.A.	N.A.	N.A.		N.A.

Source: World Bank, World Development Report 1987, Washington D. C. 1987 tables 29, 30 and 32.
World Bank, World bank Tables, Washington, 1990, series IV-Table 3, UN Statistical Year book 1983/84, New York, 1986, Table 53 and 58 and UNESCO Statistical digest, Paris 1987.

TABLE 9

MALNUTRITION IN 1980

REGION	Not enough calories for an active working life (Below 90 percent of FAO/WHO requirement)		Not enough calories to prevent stunted growth and serious health risk (Below 80 percent of FAO/WHO requirement)		
	Percent share of Population (1980)	Change in Percent Share of Population (1970–1980)	Percent share of Population (1980)	Change in Percent share of Population (1970–1980)	Total Population (Millions) (1980)
South Asia	50	- 0.03	21	- 0.02	470
Latin America & Caribbean	13	- 0.07	6	- 0.04	50
All developing Countries	34	- 0.06	16	- 0.03	730

Source: World Bank Estimates and country data sources.

new relationship between man, nature and growth for sustainable development. Such an approach would make the people both the subject as well as the object of development, and in so doing would unleash their tremendous creative potential. This potential is rooted in the shared historical experience of balancing their own needs and forms of production with the imperatives of preserving the natural environment. The valuational framework within which participatory community effort can occur is based in living folk culture where the self is experienced as fundamentally related with all living beings and with nature. This experience of the self in the present market culture of greed and exploitation has been banished to the margins of popular consciousness. It only finds resonance in art and poetry. Yet, the universal values of tolerance, humanity and harmony with nature which are inherent in folk culture can be redeployed to constitute the valuational underpinning of a new social effort at the grassroots level.

The approach of participatory development through grassroots organization that I have suggested is not just in the realm of theory, but has already been attempted in a wide range of cases in South Asia: From the Comilla experiment in East Bengal during the 1950's, the Grameen Bank, to the Bhoomi Sena in India, and the Agha Khan Rural Support Programme in Gilgit and Skardu of Northern Pakistan. Experiments in urban community organization have also been successful in a number of cases, such as the Orangi Project in Karachi, Pakistan, or the Working Women's Forum in Tamil Nadu, India. One of the more interesting examples of a linkage between social values, forms of production and the environment is provided by the Bishnoi Community in Rajastan. As Michael Tobias writing in the New Scientist shows, the spiritual identity of the Bishnoi is "linked to the land and its capacity to support them.... They are an important model of ecological prudence that much of the world can learn from."[22]

What these attempts at participatory development by local community organizations indicate is that the micro level institutional basis of sustainable development is a very real possibility in South Asia today.

2. Regional Cooperation for Sustainable Development.

The micro-grassroots effort if it is to achieve sufficient geographic coverage must be combined with macro level initiatives at the national and regional levels to arrest the processes of ecological damage and to preserve and develop the human resource potential of South Asia.

(a) Natural Resource Preservation

A number of countries in South Asia share common rivers. In some cases common watershed areas and also mountain ranges. Consequently, deforestation of watershed areas in one country can lead to flash floods and soil erosion in the downstream country. Similarly, throwing untreated industrial waste into the river upstream can cause toxicity and the consequent elimination of fish species and mangrove forests downstream for another country. Again, major wind currents cross in a West-East direction during winter across the international boundary between Pakistan and India, while in summer the Monsoon winds move in the opposite direction from India to Pakistan. Accordingly, the location of thermal plants with untreated sulphur exhaust in one country would pollute and render unhealthy the air in the neighbouring country. These examples suggest the need for regional cooperation to counteract the large scale processes of ecological damage that are in operation in South Asia. (See Part I of this paper). Some of the areas in which Regional Cooperation could occur for the protection and preservation of the environment are:

(i) Joint effort at reforestation of watersheds, and the treatment of industrial and urban effluent waste could help reduce soil erosion, devastating flash floods and toxicity of rivers.

(ii) Sharing of bio saline research and technical know-how on controlling desertification of soils, (e.g., use of Halogenic Phradophytes for controlling salinity); technical know-how on the use of ecologically safe industrial technologies.

(iii) Sharing of information on water-flow of rivers, especially flood forecasting.

(iv) Engaging in joint projects for the development of Himalayan resources, and prevention of deforestation and soil erosion on the mountain slopes.

TABLE 10

EROSION OF LAND RESOURCES IN 1980's

Extent of Desertification	Percentage of Irrigated Area under Salinization	Percentage of National Area effected by Soil Erosion	Rate of Soil Erosion (Metric Tons by Hectares per year)
Pakistan	40	-	-
India	27	27	75
Sri Lanka	13	-	-

Source: World Resources Institute and International for Environment and Development.

TABLE. 11

FOREST RESOURCES AND THEIR DEPLETION

COUNTRY	Extent of Forest and Woodland 1980 (Thousand hectares)		Deforestation of Forests, 1981-85 Average Annual Extent		Closed Reforestation 1980s
	Open	Closed	hectares per year	Percent per year	Thousand hectares per year
India	5393	51841	132	0.3	138
Pakistan	295	2185	1	0.1	7
Bangladesh	0	927	8	0.9	17
Sri Lanka	0	1659	58	3.5	13

Sources: UN food and Agriculture Organization, U.N. Economic Commissoin for Europe, U.N. Environment Programme.

TABLE 12

Toxicity of River Water
RIVER WATER QUALITY

Country	River	Fecal Coliform (Number/100 Milliliters) Number of Samples Mean c
Bangladesh	Brahamputra	2606
	Lower Ganges	1963
	Meghna	3193
India	Bhima	175
	Cauvery	439
	Chaliyar	438
	Godavari	7
	Kalade	578
	Krishna	57
	Mahi	550000
	Narmada	260000
	Periyar	767
	Sabarmati	1147
	Subarnarekha	21455
	Tapti	97000
	Wainganga	3699
Pakistan	Indus	120

Note: C= Samples outside detection limits were assigned the detection limit value for calculating the mean.

Source: Global Environment Monitoring System. (World Resources 1987)

(v) Sharing of information generated at the grassroots level on traditional knowledge systems for sustainable interaction with nature.

(vi) Sharing know-how on earthquakes, and their forecasting.

(b) Human Resource Development

As discussed in Part I of this paper inspite of impressive growth of GNP over the last 40 years in South Asian countries a large proportion of the people live in a state of poverty. There is a high frequency of disease and death due to the deprivation of basic necessities. Unhygienic drinking water and inadequate diet result in the stunted physical growth of a large number of South Asia's children. Lack of access over education prevent even larger numbers from fulfilling their intellectual and creative potential.

As Pakistan's Prime Minister Benazir Bhutto proposed in her speech at the SAARC Conference in Islamabad in 1989, it is time now to launch a major collective effort at a human resource development programme in South Asia.

As the current tensions between India and Pakistan have shown, the major obstacle today to the fulfillment of this collective vision of the peoples of South Asia is the festering Kashmir dispute. The resolution of this problem could not only ensure durable peace in the Sub-continent but could also place the region on a new trajectory of cooperation and development.■

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