

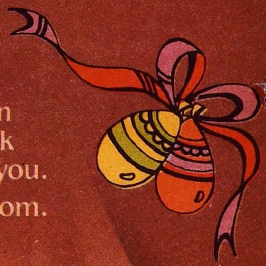
Tamil Arasu

March 1986 75 P.



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TAMIL ARASU

In scope this month

In Tamil Nadu, you see the whole of India

Beginning this month, Tamil Arasu presents a foreigner's view point of Tamil Nadu. An exciting travel into the past of one of world's finest civilizations. Excerpts from Fodor's Guide to India.

Rukmini Devi passes away

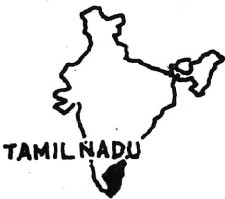
Tmt. Rukmini Devi Arundale almost single handedly inspired the renaissance of Dance in Tamil Nadu by establishing the Kalakshetra at Adayar. Her passing away is a certain loss to India. A Profile.

J. Krishnamurthi - a legend

Madras lost one of its senior citizens by the passing away of the legend in Philosophy, J. Krishnamurthi. A humble tribute to a man who helped form human minds.

Co-operatives in Agricultural Credit Sector

Co-operatives alone can lessen the effects of indebtedness and secure agricultural productivity. Tamil Nadu is way ahead of other states in lessening the burden of agriculturists.



Thiruvalluvar Year 2017

March 1986

Masi-Panguni



In TamilNadu, you see the whole of India



COURTESY : FODOR'S GUIDE TO INDIA

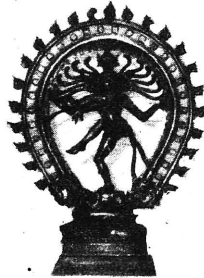
Madras is the fourth biggest city in India—out ranked only by Delhi, Bombay and Calcutta for the dubious distinction of cramming as many people as possible into one place—but, fortunately, you would never know it. It sprawls over fifty square miles with few tall buildings to mar the impression of an easy-going market town. This welcome feeling of spaciousness is enhanced by Madras, waterfront on the Bay of Bengal, one of the world's largest and most beautiful beaches.

In spite of its large population, currently over 3.4 million this is a city with a noticeably gentler pace than Delhi Calcutta or Bombay. It is also a city for people-watching: the Southerners are very different than their northern counterparts. They have a poise and a self-assurance probably not to be found anywhere else in India: they carry the civilization of thousands of years. Saris are not worn in the same manner as in northern India and the men dress differently too; instead of the white dhotis of the North, they often wear brightly-coloured lungies, something like Polynesian pareos.

It is quite fitting that gracefulness should be present in Madras in such liberal quantities. It is in Madras National Art Gallery that you will find the famous bronze of the Chola

period (10th century) of Nataraja-Siva in the cosmic dance pose. Although it is but a statuette standing about two feet high, this beautifully executed metallic image seems to be constantly moving. This has a rare artistic appeal and has thus become the symbol of Indian art recognized all the world over.

No visitor should leave Madras until he has seen a Bharata Natya dance. Many of these dance recitals are about Krishna, the most popular of Vishnu's nine incarnations,



symbol of the ideal man, and the girls who dance them seem to be expressing their infatuation with the god, described in one prayer as "Lord Krishna, with eyes like lustrous pearls, head bedecked with peacocks' feathers and body the hue of Heaven". In their performance, these dancers exhibit perfect control over every muscle in their lithe bodies as they execute movements with clock-

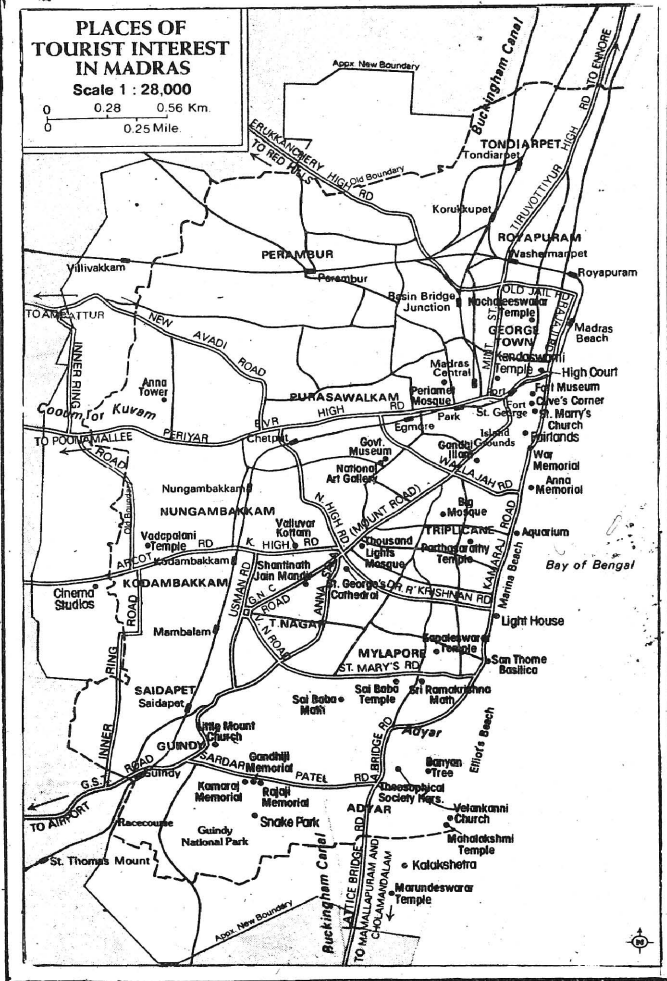
work precision. When you have seen a Bharata Natya dancer move her neck while keeping her head absolutely motionless, you will appreciate what we have in mind.

Paradoxically, this least-Westernized of India's Big Four cities is also its oldest European settlement. The written records trace the European foothold in Madras back five hundred years to the Portuguese, but they were only late-comers. Tradition says that Thomas the Apostle, "Doubting Thomas", came here as a missionary to India and that he was martyred on St. Thomas Mount (near what is now the Madras Airport) in AD 78. His name has survived in San Thome, a pleasant residential section of Madras on the sea, and in the Cathedral of San Thome, built on the site of a church which the Portuguese erected when they came to Mylapore, now a section of Madras.

In Armenian Street, near the High Court, is another reminder of the early days of European influence, in the Shape of the fine old American Church, built originally in 1620 and subsequently becoming the cornerstone of the influential Armenian community.

Fort St. George, the Original Madras.

Strictly speaking, though, the history of Madras began with the history of the British in India. In 1639, twenty five years before the British reached Bombay and fifty years before they arrived in Calcutta, the Rajah of Chandragiri gave Francis Day a lease on the site of Madras, then known as Madraspatnam, to open a trading post for the British East India Company. The following year work was begun on Fort St. George which was finished in 1653. From this stronghold, Britain held Madras until, India achieved independence, with the exception of a two-year period beginning in 1746, when Duplex took it for France, only to lose it again in 1748.



Fort St. George is tightly interwoven with the swashbuckling story of the struggle for India in the 18th century. It was here that Robert Clive came in 1743, as a modest clerk for the East India Company. When Fort St. George surrendered to the French Clive escaped and metamorphosed from a clerk into an officer in the army of the East India Company. By the time he was 30, he had become governor of Madras and he was well-launched on the shooting star career which

saw him preserve India for Britain only to die by his own hand in disgrace back in his native England.

Modern Madras has grown around Fort St. George and the old fortress is as good a place as any to start a tour of the city. Its twenty-foot walls still stand, looming over the center of Madras the busy Mount Road section. Behind them, you can stroll through the pages of history. Clive's house is still to be found here and

colonel Wellesley, who later became the Duke of Wellington, lived in another old home, which can be seen within the fort.

Also inside Fort St. George is the oldest Anglican church in India, St. Mary's Church, consecrated in 1680. The records show that one of its most generous benefactors was Elihu Yale, the Boston-born English merchant who also showed his generosity to the university now bearing his name.

Yale, too, was a Governor of Madras, although his term in office was not as that of Clive. Finally, you might take a look at the Fort St. George Museum, once used as an exchange by the marchants of the East India Company, and now containing many relics of that era.

George Town, the original Madras, lies to the north of the fort. It's streets still bear such names as China Bazaar

Road, Evening Bazaar, Portuguese Church Street and Armenian Street, all reminiscent of the history of Madras as a centre of International trade for four centuries, Madras Harbour to the north is one of India's finest, although it has existed less than a century. It is completely artificial. The first European travelers had to come ashore on the exposed beach, which was sometimes a perilous procedure.

(to be continued)

State Government Planning to give cash incentive to farmers:

The Hon'ble Agriculture Minister Thiru K. Kalimuthu urged that the Training and Visit Programme of the State Agriculture Department be modified to suit the conditions in the villages to make all farmers take to improved technology.

The Minister, who was inaugurating the State-level seminar on "samba rice productivity", on 25th Feb. said much leeway had to be made in water management. To achieve results on the farmfront, there should be well-coordinated, efforts on the part of the government, the researchers and the farming community, he said.

Referring to the massive credit aid and other benefits extended to agriculturists, the

Minister pointed out that the Government was in touch with the Reserve Bank of India to get its approval for disbursement in cash the present incentive of Rs. 35 worth input for a quintal of paddy procured.

Thiru A. Venkataraman, Secretary to Government, Agriculture Department, in his keynote address, said that increasing the productivity of paddy during the Samba season had not engaged due attention for many years. During this season, there was a large amount of rainfall and the area covered by paddy was also very large. If productivity of rice during this season could be substantially increased, diversification of crops could be usefully thought of for the Kuruvai and Navarai

season when water viability was less. It would be in the interest of over-all increase on the food front, the Secretary said.

Thiru J. Anjani Dayanand, Special Commissioner and Agricultural Production Commissioner, who presided, regretted that a disease-resistant, high-yielding variety to replace IR 20 for the Samba season had not been released all these years. Coordinated and effective research for evolving an acceptable strain was needed.

Thiru N. Athimoolam, Director of Agriculture welcomed the gathering. Thiru T. Ganapathi, Joint Director of Agriculture proposed a vote of thanks.



Madras, Feb. 24:

Mrs. Rukmini Devi, founder of Kalakshetra, died at a nursing home here early this morning. She was 82.

Rukmini Devi, who had been ailing for some time, was admitted to Vijaya Hospital on Thursday evening with fluid collection in the right lung. After aspiration, she came round and was feeling better. She even responded to the get-well greetings of her friends and admirers who

AN ERA ENDS

called at the hospital in the last three days. Yesterday was her birthday, according to the Tamil calendar.

This morning when she woke up at five, she was a little impatient wanting to go to her house in Theosophical Society, Adyar. She was given a bath and when an attempt was made to feed her through a nasal tube, she struggled, pulled out the tube and collapsed. She died of a massive cardiac arrest, according to those who were at her bedside.

Even before her body was brought and kept for public view at her residence, where she had lived for several decades, hundreds of her admirers had gathered to pay homage. The Governor, Mr. S. L. Khurana, the Chief Minister, Mr. M. G. Ramachandran and his Cabinet colleagues, the Chairman of the Legislative Council, Mr. M. P. Sivagnanam, and a number of educationists, industrialists and art and music lovers placed wreaths on the body.

The body was cremated in the evening at Besant gardens. The pyre was lit by her elder brother's son, Prof. P. Krishna of the Benares Hindu University.



NEW YORK, Feb. 17.

Mr. J. Krishnamurthi, internationally renowned philosopher, who died shortly after midnight last night at his home in Ojai in California, was cremated this morning. Mr. Krishnamurthi (91) had been ailing for some time with cancer of the pancreas.

ANOTHER ERA ENDS

Mr. Asit Chandmal, member of the J. Krishnamurthi Foundation, who was at his bedside, said the cremation was simple, without ceremony, without rituals and without prayer, in deference to the wishes of Mr. Krishnamurthi.

Mr. Chandmal said Mr. Krishnamurthi was admitted to hospital last month shortly after his return from India. A few days later, he returned to his home where he thought he would be more comfortable.

Mr. Krishnamurthi delivered his last lecture in Madras on January 4 when he was said to have indicated it would be his last.

Mr. Krishnamurthi set up his American home in Ojai in 1922 where he used to live when he was not on his lecture tours. —

One of India's most outstanding personalities-called as a roving cultural ambassador-Rukmini Devi contributed more than anyone else of her generation to enriching the country's artistic life.

Born 82 years ago (leap year of 1904) in an orthodox family, Rukmini Devi caused a flutter at the age of 16 when she chose to marry the Australian born theosophist-educationist Dr. G.S.Arundale. In the course of her travels with him she met the great ballerina Anna Pavlova who inspired her to enter the fascinating world of "movement and expression".

Bharatanatyam: Rukmini Devi learnt Bharatanatyam under Pandanallur Meenakshisundaram Pillai and removed the sigma attached to this art as its presentation was then confined to "Devadasis". Facing challenges unflinchingly, breaking tradition and custom, she gave her public recital at a Theosophists' convention in 1935. Due to the courage of this individual, the tide of resistance waned and a renaissance began. Refinement was her watchword and purity, her sole aim. Both were preserved by her till the end.

Kalakshetra: In 1936, Rukmini Devi established the International Centre for Arts which was later renamed as Kalakshetra. It draws students from all parts of the world and attracts connoisseurs who consider it a temple of arts and sanctuary of tradition. Apart from dance, painting and regular education, Kalakshetra houses a library which is a heaven for researchers.

It is impossible to mention her achievements in the variety of fields of activity and the honours showered on her. Perhaps the crown among them was



RUKMINI DEVI *Passes Away*

the Padma Bhushan. When the Janata Party formed its Government at the Centre in 1977, she was tipped to be the President, succeeding V.V.Giri. But she declined the offer and chose to devote herself to the propagation of classical art. She received the "Kalidas Sanman" from the Madhya Pradesh Government, the Rabindranath Tagore centenary plaque from the Asiatic Society, Doctorates from the Wayne University (U.S.) and the Mahaila Mahavidyalaya of the Benares Hindu University and the title of "Desikothama" from Viswa Bharati.

Lover of animals: As a member of the Rajya Sabha for six years from 1952, she took deep interest in piloting a Bill for the prevention of cruelty to animals. She was the Chairman of the Animal Welfare Board and of the reception Committee of the World Vegetarian Congress. She received the title of "Thani Perum

Kalaigarnar" from the Eyal Isai Nataka Mandram in 1980. Only recently, a Trust was formed to manage the affairs of the Kalakshetra which she had been guiding for 50 years.

More than her awareness of the need to preserve of our cultural glory, it was Rukmini Devi's cherished dream to construct an auditorium based on norms prescribed by the Natya-Shastra of Bharata. She choreographed several hazards particularly financial constraints, she saw to the completion of a new auditorium which Thiru Rajiy Gandhi christened as "Bharata Kalakshetra". Her accent was on simplicity of decorum, and on devotional content. Even 50 years ago, at the diamond jubilee convention of the Theosophical Society, Rukmini Devi expressed her anxiety to promote all that "is great and wonderful".

Her greatest contribution to the world of art was to bring the stalwarts in different fields to stay on the campus and transmit their genius to students. She succeeded in fulfilling the rewarding divine mission of spreading the religion of beauty.

Spirit of service: Speaking at the Golden Jubilee of Kalakshetra, Rukmini Devi recalled: "With no money, no land, no building, I started this work with one student under a tree, which was our only classroom. It was from such beginning that the work has grown. I never danced so that I might become famous. This work was undertaken in the spirit of great love and of service. The future generation should carry on this work in the same spirit with the same dedication and with the same devotion that has been poured into the building up of this institution not by myself alone but all my co-workers as well". — M.Nagesh



J. KRISHNAMURTI THE PILGRIM

Jiddu Krishnamurti was born on May 11, 1895, in the town of Madanapalle in Andhra Pradesh to middle-class Brahmin parents. The mother, Sanjeevamma, sensing that her baby was one day to become a great soul, insisted on delivering the baby in the puja room of her house, which was against orthodox Hindu custom. And as the baby was the eighth in the family, he was named after Lord Krishna.

The boy's father, Naraniah, later moved to Madras and took up employment in the Theosophical Society, which was at that time led by eminent figures like Mrs. Annie Besant

and Bishop Leadbeater. Basic to the tenets of Theosophy was the belief that Lord Maitreya, the World Teacher.. Christ in the West and Bodhi-sattva in the East - manifests himself from time to time, and that he was soon to take a human form.

The "discovery" of that form took place in 1909 when Leadbeater spotted on the beach behind the Theosophical Society at Adyar the ragged and under nourished Krishnamurti, who was then 13 years old. A clairvoyant, Mr. Leadbeater saw that the boy had the most luminous aura without a trace of selfishness in it, and

he soon proclaimed that the boy would be the future Messiah. This surprised many, for the boy apart from being sickly, was so dull-witted that he was constantly beaten at school and sent out on the verandah, from where he would keep watching the trees and birds around. When Mrs. Besant came to India, she made herself the legal guardian of Krishnamurti and his younger brother Nitya, and took them to England for being educated. But Krishnamurti never passed a single examination, and Oxford turned him down on the ground that it had no competence to educate Messiahs.

However, by the age of 15

The true treasure house of a Nation are the intrepid leaders who are driven by the soul force of idealism.

All ideals revolve round one fundamental ideal. It is that we should give the people a good, clean and fair life.



he had written his first book—At the Feet of the Master, which had been translated into 27 languages and has run into 40 editions. At the age of 16, he had made his first speech. In 1911 in order to prepare the way for the coming of the World Teacher, a global organisation called the Order of the Star in the East was formed within the Theosophical Society with Krishnamurti as its head. Mrs. Besant went about giving wide currency to the belief that Krishnamurti was indeed the chosen vehicle, and urged her followers to love him “because only once in thousands of years is such a life lived among mortal men”

With his chiselled features, enormous dark eyes and elegant manners, the shy, young man drew a lot of attention and Bernard Shaw was to say later that Krishnamurti “is the most beautiful human being I have ever seen”. But he grew up uncontaminated by all the affluence and adoration that surrounded him. Despite his deep loyalty to Mrs. Besant, whom he called his mother, he was slowly revolting against, the religious hierarchy and his own role in it.

In 1922 while he was in California, Krishnamurti under-

went an intense spiritual experience that altered his consciousness completely and he wrote about it afterwards: “I have seen the Light...I have touched the compassion which heals all sorrow and suffering; it is not for myself but for the world” The sudden death of his brother Nitya was a shattering event in his life, but it also served as a catalyst of his inner life.

The Order had by then grown in money and property and following. A Dutch baron made over to Krishnamurti his 18th century home, Castle Eerde with 5,000 acres of woodlands, which became the headquarters of the order. Meanwhile, Krishnamurti's teachings were becoming highly revolutionary: “In order to be happy need we have religions, in order to love need we build temples? Truth cannot be found in the dark sanctuary of temples nor in the well-lit halls of organised societies; neither can it be found in books, nor in ceremonies” The foundations of Theosophy began to totter.

The final blow came in 1929 when Krishnamurti dissolved the Order, resigned from the Theosophical Society and re-

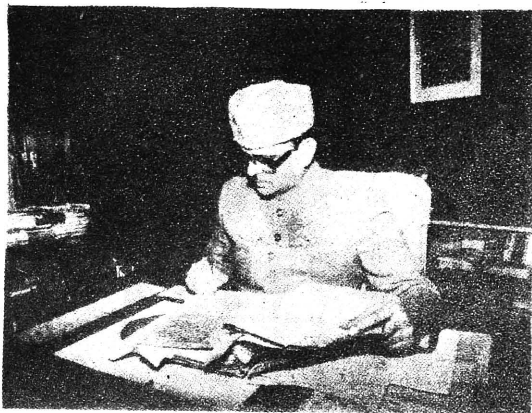
turned all the enormous wealth—buildings, estates, endowments—that had poured in. Abdicating the throne he declared: “I maintain that Truth is a pathless land and you cannot approach it by any path whatsoever, by any religion, by any sect. The moment you follow someone you cease to follow Truth..I desire to free (man) from all cages, from all fears, and not found in new religions.. My only concern is to set man absolutely unconditionally free.”

Since then he accepted from people neither their worship nor wealth, and though four International Foundations sprang up around him he always insisted that they were purely for administrative purposes and were in no way missionary institutions vested with the authority to interpret his teachings. He founded in India, England and the US, six international school with the aim of enabling children to grow up without identifying themselves with any religion, nation or ideology and with a great deal of feeling for man and nature.

Till his last days, Krishnamurti kept up a hectic schedule of talks and personal interviews as well as discussions with teachers and students, Aldous Huxley, after listening to a talk by him, remarked that it was “the most impressive thing I have listened to. It was like listening to a discourse of of the Buddha—such power, such intrinsic authority”. A bibliography published some years ago notes that Krishnamurti is the author of 712 distinct works! The very titles of his works are revealing.

—The Urgency of Changes, The Only Revolution, You are the World, The Newtork of Thought and Freedom from the known.

— M. Nagesh



UNION BUDGET 1985-86

uty. Forty one life
saving formulations
exempted from excise.

Direct Taxes:

*The standard deduction on salary income raised to 30% from 25%, the ceiling for standard deduction goes to Rs. 10,000 from Rs. 6,000.

*Amount spent on medical treatment by self-employed and salary earner as also premium on medical insurance policies will be tax deductible.

*A flat rate of 40% of the gross receipts by winning from races and lotteries.

*Exemption limit for gift tax raised to Rs. 20,000 from Rs. 5,000. Gift tax at a flat 30% of the value of taxable gifts but aggregation of gifts will not be allowed. Exemptions such as those relating to gifts of policies of insurance, gifts to the spouse etc., withdrawn.

*Depreciation to be computed on blocks of assets instead of individual assets. The number of rates of depreciation reduced. Depreciation will be allowed at

higher rates to ensure that more than eighty percent of the cost of the plant and machinery written off in four years or less. Apart from items eligible for 100% depreciation in the initial year itself, there will be two rates of depreciation at 33 1/3% and 50%.

*The limit of initial deduction for capital gains tax is being increased from Rs. 5,000 to Rs. 10,000. For long term capital gains from buildings and lands, there will be a uniform rate of deduction of 50%. For other assets, the rate will be 60%. The date of determining the cost of assets advanced from January 1, 1964 to April 1974.

*Surcharge on companies abolished from 1987-88, with the introduction of new funding scheme to replace investment allowance will not be admissible on plant and machinery installed after March 31, 1987.

Indirect Taxes:

*Twenty three specified drug intermediates will be exempt from customs

*For Colour TV sets with size exceeding 36 cm, excise duty increased to Rs. 1500 from Rs. 900.

*A levy of Rs. 8,000 for air-conditioners upto 1.5 tonne capacity, Rs. 10,000 for capacity between 1.5 tonnes and three tonnes and Rs. 15,000 for upto 7.5 tonne capacity.

*Five percent research and development levy on payments made for purchase of technology from abroad to create venture funds.

*To promote exports, unmanufactured tobacco will be exempted from export duty. For the garment industry, the general draw back increased to 10% from 7.5%.

*Motor cars will be subject to about 5% increase in duty. On fuel-efficient motor cars, the new MODVAT rates would be 20% ad valorem in place of the current duty of 15% ad valorem.

*The general machinery rate of customs duty increased by 10%. The general project rate will go up by 55% ad valorem. Similarly, import duty on Components reduced by 5%.

THE PAST PERFORMANCE (1984-85)

Food and Fertilizer subsidies amount to Rs. 3700 crores.

Tax collection increased by 2%. i.e. Rs. 2,476 crores.

Rs. 440 crores as expenditure for new plan outlay such as DA increase, adhoc bonus etc..

Defence expenditure is Rs. 7,862 crores

Interest payments Rs. 7,075 crores

Personal accident insurance social security scheme extended to 200 districts.

An accident insurance scheme for municipal sweepers and railway porters worth Rs. 500. each.

Rate of interest on GPF raised to 12% from 10.5%

Rate of interest on Public Provident fund raised to 12% from 10%

Power generation increased by 15%

Railway freight increased by 9%

Despatch of coal increased by 10%

Increase in the wholesale price index upto 8th Feb. '86-3%.
(last year -5%.)

Collection by major taxes increased by 22%

Net foreign exchange spent on oil imports is Rs. 4600 crores.

Advances of the public sector banks to the priority sector reaches 43.34%

16.5 million people living below the poverty line secure loans from banks amounting to Rs. 3100 crores.

65% of household savings invested in financial assets.

Projected growth in GNP in 1985-86
Between 4.5% and 5%.

Anticipated Food output in 1985-86
150 million tonnes.

BUDGET AT A GLANCE

	(Rs. in crores)		
	1985-86 Budget	1985-86 Revised	1986-87 Budget
Total receipts	42741	46017	49212
Tax revenue	19228	20940	22696
Non-tax revenue	6091	6231	6846
Capital receipts	17422	18846	19670
Total expenditure	46057	50507	52862
Non-Plan expenditure	27548	30011+	31867
Plan expenditure	18509	20496	20995
Overall deficit	— 3316	— 4490+	— 3650
Surplus/Deficit on revenue account	— 5601	— 5940	— 6874

+ Excludes Rs. 1628 crores of medium-term loans given to States to clear their overdrafts.



ROLE OF COOPERATIVES IN THE AGRICULTURAL CREDIT SECTOR OF TAMIL NADU.

Thiru R. Shanmuga Sigamini, IAS.,
Commissioner and Secretary,
Co-operation Department.

The administrative, economic and social problems confronting rural indebtedness in Tamil Nadu call for a co-ordinated economic and social policy of a massive character. In the formulation and implementation of such a policy, co-operation must be reckoned with as an important factor as co-operation in the field of agricultural credit, is of paramount importance to our development strategy. In the financing of agriculture, which is a seasonal industry, with a inevitable time-lag between the investment and the out-turn, credit is the very essence of successful agricultural operations-particularly with a large number of small

land holders with inadequate surplus resources. The quantum of credit requirement for cultivation of crops is dependent on the nature of crop, the locality, the holding and the size of the family. The farmer needs credit for cultivation expenses, to meet the expenses of his and his family's livelihood and to meet interest charges on the debts. The land holdings in our State are so small that the farmer is caught in a vicious circle. His farm is small, and his man power is wasted. He cannot afford better seeds, manure, or the many other inputs so very essential to get the utmost from his land or to make an adequate living. Hence

agricultural productivity is one of the prime objectives of our development efforts. Agricultural productivity is a measurement of the relationship between the out-put and the inputs that go to obtain such an output. In terms of crop, this is called the yield. Hence increase in agricultural productivity means increase in the yield of particular factors of production like land, labour, capital and organization, which are combined for productive purposes in a farm - a unit of production. What is the effective relationship between co-operative credit and agricultural productivity? In the first place, bulk of our farmers must

borrow. It is not borrowing that affects productivity but indebtedness. Indebtedness can lower productivity through loss of tools, livestock, fertile pieces of farm land, or loss of the power to dispose of labour for the farmers' own benefit. Indebtedness can also lower productivity by sapping the will to change and creating a despondent outlook. By offering lower rates of interest cooperatives credit enables farmers to have larger incomes and eradicate indebtedness and thereby stimulate increased agricultural productivity. Cooperatives do not decapitalise the farmer by depriving his land. Besides saving schemes, as a group farmers can help one another by mobilising their savings and as individuals once indebtedness is eradicated farmers bring about technical changes in their farms, educate their children in a better way and secure better health facilities to their families. Thus cooperative credit is a vital element in increasing agricultural productivity, modernisation of agricultural farms and production, in

the provision of better education and better health care to the farming communities.

Cooperatives play a vital role in the provision of agricultural credit to all sectors of the farming community known as short, medium and long term loans. In spite of the diversification of the activities of the cooperatives like consumer activities, processing, marketing, development of agricultural productivity constitute the core of the cooperative effort. The cooperative credit today has been progressively institutionalized to provide support for agricultural productivity by providing finance and inputs support besides expansion of modern techniques not to speak of price support and marketing intervention at appropriate times.

There are 4,655 agricultural Service Cooperative Societies in Tamil Nadu providing short term loans for cultivation operations, medium term loans for allied agricultural purpose like purchase of milch animals,

poultry farming, sheep rearing, purchase of plough bulls, purchase of storage bins, etc. The primary Agricultural Cooperative Societies (PACS) generally cover an area of two to three revenue villages.

There are 183 Primary Land Development Banks (PLDB) to provide long term loans for the purposes of sinking and deepening wells, installation of pumpsets and for other defined land development purposes. The PLDBs cover an area of 1 to 4 blocks.

Out of an estimated 53.14 lakhs agricultural families in terms of operational holdings in the States, 45.18 lakhs of agricultural families have been covered by cooperative as on 31.3.1985, which constitutes 85.6% of the total agricultural families. Of the above, 76.7% belongs to the group of small and marginal farmers. As a matter of policy in the provision of credit and other inputs, preference is given to small and marginal farmers.

From the commencement of the Sixth Five Year Plan, the



State Government is providing a subsidy of Rs. 100 to enable members of SC/ST to enroll themselves as members of the Agricultural Service Cooperative Society (ASCS) and thereby avail the credit and the benefits of other inputs. So far 90,000 persons belonging to SC categories have thus been enrolled with the subsidy provided for by the Government till 1984-85, i.e. the terminal year of the Sixth Five year Plan. This subsidy scheme is being continued in the Seventh Five Year Plan also beginning from 1985-86, and Government have sanctioned financial assistance of Rs. 10 lakhs to enroll 10,000 members belonging to SC as members of ASCS. Government have also launched another scheme whereby an interest free loan of Rs. 250/ will be given to 1000 SC members so as to enable them to take additional shares in the ASCS in order to avail themselves of a larger in doze of credit.

Short term loans are issued to the members of the maximum of Rs. 30,000/- per members on the personal security repayable not exceeding in fifteen months. The repayment schedule is fixed with reference to the crop for which the credit is availed of. Credit for agricultural productivity is fixed in consultation

with the concerned technical personnel well ahead of the crop season and is distributed as components 'A' and 'B', i.e. Component 'A' representing 'cash' while component 'B' representing 'kind'.

Medium term loans are issued to the members of the ASCS, repayable in a period of 3 to 5 years for the purposes of purchase of milch animal, poultry farming, sheep rearing, etc. The medium term loans are sanctioned upto the cost of one economic unit to the beneficiaries under the Integrated Rural Development Programme (IRDP) Scheme on a personal surety. In respect of approved investment purpose, medium term loans upto Rs. 1,000/- are issued on surety basis. Area approach and schematic bias are also taken into account while disbursing medium term credit. The quantum of short, medium and long term loans issued through the cooperatives are as given below:

The cooperatives continue to provide jewel loans at the rate of 14% per annum subject to a maximum of Rs. 5,000 per member which is repayable over a period of one year. Jewel Loans are also issued at Rs. 1,000 per sovereign of gold for agricultural operation. Jewel loans help the farming commu-

nity in their agricultural operations. Out of 4,655 agricultural credit societies, 1,446 have issued jewel loans as on date. It is programmed to bring in more societies to issue jewel loans during the current year. Government are providing infra-structural assistance to these societies undertaking jewel loan business for the purchase of iron safe with trays by providing a loan of Rs. 15,000 to each credit society. Forty Agricultural credit Societies will be so assisted to purchase iron safes with trays, during 1985-86. In addition to the credit societies in village level, branches of Central Cooperative Banks also offer jewel loans assistance. The statistical details of jewel loans issued are tabulated below.

During the current year 1985-86, it is programmed to issue jewel loans to the tune of Rs. 88.00 crores through ASCS and Rs. 42.00 crores through the branches of the District Cooperatives Central Banks.

The crop loans were provided by the cooperatives during 1984-85 for various crops and their acreage and amounts are indicated.

In offering credit facilities, cooperatives attach importance to increase yield under paddy

Financial Year	Short term cultivation loan		Medium Term loan for agricultural purposes		Long Term Loans	Total Agricultural loans
	No of beneficiaries	Amount	No. of beneficiaries	Amount		
1982-83	4.73	67.18	0.73	15.97	14.35	97.50
1983-84	5.79	75.34	0.63	13.22	15.42	103.98
1984-85	6.72	110.80	0.64	17.35	20.37	148.52

Name of the crop	Acreage financed (in lakhs)	Amount (Rs. in crores)
Paddy	5.38	39.53
Groundnut	0.99	04.52
Millets	1.05	00.28
Plantain	0.86	13.41
Sugarcane	1.46	21.07
Cotton	1.15	09.34
Turmeric	0.38	05.77
Chillies	0.31	01.90
Vegetables	0.28	04.65
Gingelly	0.06	00.24

as well as dry land farming like pulses, millets and oil seeds. During 1985-86, it is programmed to finance 6.03 lakhs acres under paddy and 4.08 lakhs acres under oil seeds and pulses by issuing short and medium term credit to the tune of Rs. 135.00 crores and Rs. 20.00 crores respectively. Till 30.9.85, cooperatives have issued short and medium term loans to the tune of Rs. 66.77 crores and Rs. 4.04 crores respectively. Needless to say, the bulk of this credit disbursed have gone in favour of the weaker sections PLDSs have issued long term loans to the tune of Rs. 9.81 crores upto 30.9.85 as against the target of Rs. 20.00 crores fixed for 85-86. During 84-85 i.e terminal year of the 6th five year plan, credit cooperatives have issue 53 per cent, 93 per cent and 66 per cent of the total short, medium and long terms loans respectively to persons drawn from the weaker sections. It is hoped that by 1989-90, the terminal year of the on-going 7th five year plan, the percentage of loans to be provided to

weaker sections would go upto 75 per cent, 95 per cent and 54 per cent of the of the total short, medium and long term credit flows respectively from the co-operatives.

Cultivation of dry crops by its very nature require special consideration, in view of the inherent difficulties in raising the dry crops and the economic conditions of the farmer. In view of this, Government have decided to provide short term credit at the concessional interest rate of 4 per cent per annum with effect from 1985-86 to small and marginal farmers raising dry crops like chola, cambu, ragi and cotton by subsidising the difference between this rate and normal interest rate of 11.5 per cent by the Government in as much as short term cultivation loan bears an interest of 11.5 per cent to small farmers while it is 12.5 per cent to others.

Under the massive programme of increasing agricultural production, assistance is given for minor irrigation develop-

ment, forestry and land development with subsidy from District Rural Development Agency (DRDA) at 25 per cent to small farmers and 33-1/3 per cent to marginal farmers. Long term loans under this programme are catered to by the PLDB and Central Coop. Banks through the ASCS in selected districts. During 1983-84 loans to the tune of Rs. 1.17 crores were issued while Rs. 7.53 crores were issued during 1984-85.

Being dependent on the vagaries of monsoon, the agricultural community has to face natural calamities, like drought, flood, which end up with crop failures. When the members of ASCS are faced with a problem of crop failure, relief is given by converting the short term loan to medium term loan repayable over a period of three years. Even such converted medium term loans are once again rephased repayable over five years in the aggregate in case crops are affected in the subsequent years also. The details of such conversion over the last few years are furnished below:

Years	Amount of conversion sanctioned (Rs. in lakhs)
1976-77	.. 3,121.64
1977-78	.. 2,811.28
1980-81	.. 175.13
1982-83	.. 2,358.59
1983-84	.. 722.59

Pilot crop Insurance scheme was in vogue in the state from

1979-80 to 1984-85 so as to protect farmers from risks. From 1-4-85, government have ordered the implementation of a comprehensive crop insurance scheme in 148 blocks for paddy and 92 blocks for unirrigated groundnut. Under the comprehensive crop insurance

scheme (CCIS) 150 per cent of the loan disbursed in the defined areas would be compulsorily insured and premium at 2 per cent for paddy and 1 per cent for groundnut would be recovered from the borrowers. However, small and marginal farmers enrolled under the CCIS are eligible for subsidy at 50 per cent of the premium paid by them and the subsidy is equally shared by the State & Central Governments. As on 21-10-1985 for the Kuruvai season in 1985, 31,831 farmers have been insured for 99,188 acres under paddy to the tune of Rs. 11.66 crores. Similarly 2,720 farmers have been insured for 9,030 acres under groundnut for Rs. 0.65 crores. The insurance coverage is dependent on the threshold yield and it is hoped to increase the coverage of crop insurance in all the 354 blocks where paddy is cultivated and in respect of millets, pulses and oilseeds in most of the blocks building up crop yield data gradually. Crop insurance, rather crop loan insurance, is not a cash relief but intended to make more agricultural credit to the farming community.

Credit Cooperatives are playing a very important role not only in agricultural production but also in the amelioration of economic conditions of the farming community particularly the weaker sections by supply of essential goods. In rendering such services resources constraint is the major hurdle as those funds have come through various higher



chances of cooperatives serving the farming community in a more intensive way and to improve the quality of credit remains bleak. The mounting overdues will not only weaken the cooperative credit structure but also choke the credit pipelines. Government have written off loans and waiver/refund of interest/penal interest to the extent of Rs. 99.00 crores already in the crucial years, in order to, help the farmers and to stabilise the credit structure. Government have also extended a rebate of 2 per cent on interest payable by small farmers from 81-82 as an incentive for prompt repayment of the short term and instalment of medium term loans. The quantum of assistance so far rendered in this direction are tabulated below:

<i>Year</i>	<i>Amount of interest rebate provided.</i>
	<i>Rs. in lakhs</i>
1981—82	.. 0.95
1982—83	.. 1.00
1983—84	.. 5.13
1984—85	.. 2.73

The aim of our five year plans is growth with stability and justice. Cooperative Credit alone can lessen the effects of indebtedness and secure agricultural productivity. We have to improve the quality of lending by lending to the right person, the right amount and in right time. It is important to build up the capital and to make loans on the basis of a sound credit policy. The economy of the state can improve only by increased production especially in agriculture. Apart from the necessity of feeding a vast and growing population, agriculture is most important as a base for industrial development. In order to increase agricultural productivity management of Cooperative Credit should be reliable and efficient. Integrity and sincerity on the part of the borrowers to repay the dues promptly are, therefore, just as important and indispensable as the size and flow of Cooperative Credit. Increasing agricultural productivity depends on technical and institutional change which are mutually dependent and interacting. Prompt repayments of Cooperative credit will improve the quality of cooperative credit which will in turn trigger the much needed technical and institutional changes besides eliminating the exploitative and absolute nonopoly-monopsony structures called the M.M. System in our rural economy.

TEA is the mainstay of the economy of the Nilgiris District. There are a number of big estates run on commercial basis by private companies. In this district, there are about 20,000 small tea growers with holdings to the extent of about 30,000 acres. These small tea growers were entirely dependent on the private Leaf Factories. The green tea leaves of the small tea growers were purchased by these factories at very low rates and the small tea growers derived very little benefits.

In these circumstances, it was decided that a "Co-operative Tea Factory" would be the most effective instrument to tackle the problems of the Small Tea Growers. The first Industrial Co-operative Tea Factory was registered in Kundah area and production commenced in 1962. This experiment was a great success and there was demand for more such factories from other areas in the District. At present there are 12 Industrial Co-operative Tea Factories in different areas are functioning. The thirteenth factory at Erumad is expected to commence production in April 1986. As on date there are about 9000 small tea growers members in the Industrial Co-operative Tea Factories, with a holding of about 17,500 acres. The total paid up share capital is Rs. 295 lakhs which includes a sum of Rs. 105.00 lakhs being the state participation in the shares.

The Industrial Co-operative Tea Factories are being served by a central organisation based at Coonoor known as the Nilgiris small Tea Growers Service Industrial Co-operative Society Limited.

The Institution is popularly known as **THE INCOSERVE**.

Incserve and INDCO Tea Factories

Tmt. THANGAM SANKARANARAYAN

(Managing Director)

Incserve: Coonoor

I.A.S



The Incserve provides various services to its member tea factories such as ware houses for storing teas in the various action centres like Coonoor, Coimbatore and Cochin, supply of fertilisers, teaches packing teas, machinery spares, diesel and other inputs required by the Industrial Cooperative Tea Factories, besides helping to market the teas of its members to the best advantage.

The Incserve has recently received an order for the supply of 400 M.Tonnes of tea to the value of Rs. One Crore from the Defence Department and executed the same to their entire satisfaction. It has also requested the defence authorities to place further orders with the Incserve.

The Incserve has recently developed two blends of tea and one viz. "BLAZE" is marketed through Cooperative Super Markets in the State in cartons of 500 gms, 250 gms., and 100 gms. The second blend 'KURINJI' is marketed through the Coop. Super Markets in pouches of 50gms., 25gms., and 10gms. Kurinij is also marketed in loose through the outlets of Tamil Nadu Civil Supplies Corporation is for 50,000 Kgs. and from the Co-operative Super Market is for 12,000 kgs.

The sale of "BLAZE" tea was launched by the 'Hon'ble Minister for Finance, at Valluvar Kootam, Madras on 20.11.85

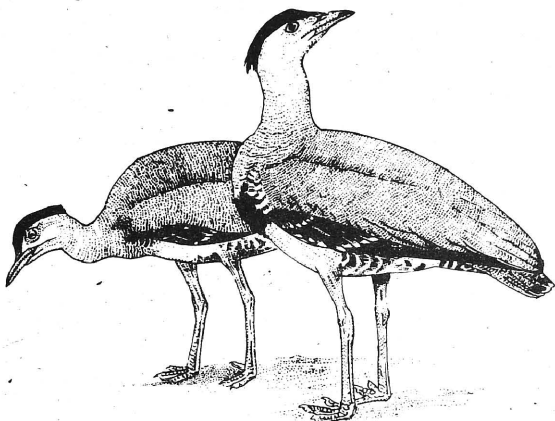
the last day of the Co-operative Week Celebrations.

The Tamilnadu Civil Supplies Corporation has purchased the Kurinji teas in bulk and marketed the same under the brand name "AMUDHAM". The "Amudam" tea was introduced in a special function held at Madras on 20.1.86 in the presence of the Commissioner and Secretary to Government, Industries Department. The first sale was released by Tmt. Thangam Sankaranarayanan Managing Director, Incserve.

The Incserve is also taking efforts to sell Indco teas through other Co-operative Marketing Federations. The Incserve has already contracted the State Co-operative Marketing Federations in Rajasthan, Kerala, Pondichery, Karnataka etc.,

Incserve is also taking steps to appoint agents in all the states for sale of Indco teas. The Incserve is also exploring the possibilities of taking up direct export of Indco teas to Singapore, Malaysia, Thailand, Japan etc.,

The Incserve is taking all efforts to market atleast 25% of the total production of the Industrial Co-operative Tea Factories and thereby help the Small Tea Growers in this District.



establishment of bustard sanctuaries: Bhatiyakalyanpur taluks in Jamnagar district, Mandvi-Abdasa-Lakhpur taluks in Kutch district and Banni grasslands in Kutch district.

The Great Indian Bustard is one of the largest flying birds in the world. It reminds one of a young ostrich. There are 22 species of bustards. Their size varies from 35 to 130 cm. A large bustard can weigh upto 13.5 kg. with a 2.5 m wingspan.

Though large-bodied, its stout legs and strong, blunt toes enable the Great Indian

STRATEGY TO SAVE THE GREAT INDIAN BUSTARD

A two-phased conservation strategy to save the Great Indian Bustard from extinction in Gujarat has been recommended by an expert team led by Dr. Salim Ali, the renowned ornithologist.

The team was set up by the Bombay Natural History Society in 1981 to obtain precise data on the habitats, behaviour, distribution, season seasonal movements, etc., of the bustard and to suggest a conservation management plan for the birds.

The team has suggested, in the first phase, wide distribution of a bustard poster especially among villagers and watchmen of fields to enable them to identify the bird when they sight one. Simultaneously foresters and watchmen are

asked to keep records of every sighting of a bustard with details of the place, time, number of birds seen, etc. Verification by a forest officer of each reported sighting and an intensive joint survey by the BNHS and the Forest Department during the monsoon, when bustard flock to their breeding grounds, have also been recommended.

In the second phase, establishment of bustard sanctuaries is suggested, based on the findings of the survey made during the first phase.

Sanctuary sites

Meanwhile, based on its surveys and discussions with naturalists of the region the BNHS team has identified the following three areas for the

Bustard to run swiftly. It flies reluctantly and only for short distances.

The male is larger in size and the black crested crown on its long neck is quiet conspicuous. It performs a spectacular courtship display.

The bird prefers to live in deserts, grassy plains and open savannahs. It is omnivorous and feeds mainly on seeds, fruits, insects and small vertebrates.

The Great Indian Bustard, which was once widely distributed in the grasslands, fields and open scrublands throughout the country, survives today only in a few isolated pockets in six states—Gujarat, Maharashtra, Rajasthan, Madhya Pradesh, Karnataka and Andhra Pradesh.

—Declining numbers

During his surveys in 1970-71 Thiru Dharmakumarshinji noted a marked decline in the bustard population in Gujarat. By 1980, the number of birds in the state was estimated at between 50 and 75. The BNHS team conducted a preliminary survey in February, 1982 and two more surveys in 1984 and

1985 covering Jamnagar and Kutch districts which are definitely known to hold bustard. The team sighted six bustard during the 1984 survey but saw none during the other two surveys.

Poaching and destruction of its habits through over-grazing and plantation of trees that

grow tall are described as the immediate reason for the decline in bustard population. The BNHS surveys and reports by various naturalists confirm that the Great Indian bustard survives in Gujarat definitely in Jamnagar and Kachch and probably in Rajkot, Bhavanagar and Surendranagar districts.

(CEE-NFS)

Thiru S. Ramachandran, Hon' Electricity Minister on 9th February, 1986 declared that Tamil Nadu hoped to be self-sufficient in power only by the end of the eighth Plan. He also disclosed that the Tamil Nadu Electricity Board proposed to set up a giant 1,000 MW coal-based thermal power station in Cuddalore in South Arcot district.

Thiru S. Ramachandran told newsmen that the proposed power station would have either two 500mw units or five units of 210 mw capacity.

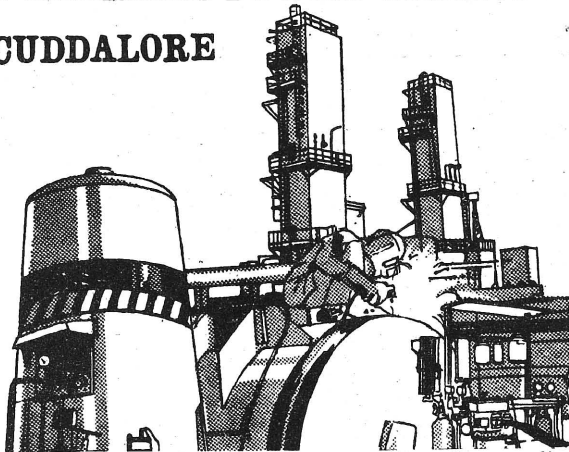
The Minister said that the total installed power capacity in Tamil Nadu was about 3,300mw in the Seventh Plan, the addition on another 1,416 mw was proposed.

Thiru S. Ramachandran expected that three out of the four units of Mettur Thermal Power Station, each with a capacity of 210 mw were expected to be brought from Singareni.

All the three units of the 630 mw Second Thermal power station at Neyveli (each unit with a capacity of 210mw) were also expected to be commissioned during the Seventh Plan.

The Electricity Minister, categorically ruled out any revision of power tariff in the

GIANT THERMAL POWER STATION FOR CUDDALORE



State because of the hike in the prices of coal.

Thiru S. Ramachandran also said that the first 910mw unit under the expansion scheme of the Neyveli Lignite Corporation was expected to be commissioned in March this year and if this materialised, the State could tide over the situation in the summer, without resorting to any further power cut.

The Government has decided to provide electricity for all agricultural pumps sets in the state for which applications were made before March 31, 1976 by the end of the current financial year in all districts except South Arcot.

For South Arcot district, it might take another one year

to clear all pending applications made prior to March 31, 1976.

The Tamil Nadu Government has shelved proposal to form Government owned companies in various regions in the state for distribution of power in the state. The TNEB was already incurring losses and the formation of companies for regions would only result in distribution of losses, he said.

The Minister said that the annual loss to the Electricity Board due to subsidised distribution of power supply to agriculturists amounted Rs. 200 crores. If this social cost was taken into account, the Electricity Board could not be accused of sustaining huge losses.



TAMIL NADU CHEMICAL PRODUCTS— FINE PERFORMANCE

MANY RECORDS POSTED

Tamil Nadu Chemical Products has made excellent progress during the year ended September 30, 1985, registered many new records in several spheres including production, productivity, capacity utilization, sales, energy saving, etc., and has also proposed a handsome maiden dividend of 15%

Production and capacity utilization:

The Company—the market leader in Sodium Hydrosulphite—produced a record 3744 tonnes of Sodium Hydrosulphite (SHS) bettering the previous best of 3369 tonnes. Against the installed capacity of 3300 tonnes, the capacity utilization came to a record level of 113% for the year even surpassing the 102% in 1983-84 achieved by the Company. Viewed in the back-drop of 36% utilization ratio by the entire SHS Industry, the 113% achievement redounds to the credit of TCP. This level of utilization was achieved primarily by technological innovations including by increasing the concentration of raw materials, increasing the batch size, etc.

Sales at new peak:

Sales at 3790 tonnes constituted a record surpassing the

previous best of 3358 tonnes (increase of 12.9%) in 1983-84. Sales realization amounted to Rs. 10.06 crores (increase of 13%) over the previous year's level of Rs. 8.91 crores.

Energy efficiency:

The attention paid by the Company to the crucial sphere of energy, deploying several energy saving measures, has produced very good results as a result of which furnace oil consumption has come down significantly by 23% over the years.

FINANCIAL RESULTS

Despite record production, capacity utilization and sales, the margins have been under severe pressures as the entire SHS Industry faced severe constraints in the form of demand stagnation from the main consumer of SHS viz. the textile industry and the 'dumping' of imported SHS by trans-national companies. In the last 2½ years, between February 1983 and May 1985, the input cost increased by 63% and during that period the Company had made a downward revision of its selling price by 5%. The holding of the price line for as long as 2½ years by the SHS Industry is perhaps unparalleled the country over in any sphere—

be it in Industry or in agriculture, be it administered price decided by the Government or decided by market forces. Even when the Company revised the selling price of SHS upwardly in May 1985—which benefit accrued for part of the year 1984-85—it was only a meagre 4.3% over the February 1983 base price necessitating the Company absorbing the major chunk of increase in input costs to the extent of 59%.

Despite all these constraints, due to high productivity, the Company's Gross Profit before Depreciation Interest and Investment Allowance Reserve, came to Rs. 180.53 lakhs in 1984-85 from a level of Rs. 205.60 lakhs in 1983-84. Interest charges have come down from Rs. 57.65 lakhs to Rs. 45.75 lakhs due to better inventory control and financial management. The amount set aside for depreciation is Rs. 50.49 lakhs (previous Rs. 48.18 lakhs). After providing for Investment Allowance Reserve of Rs. 3.80 lakhs (0.29 lakhs) and there being no provision for taxation, the nett profit for the year comes to Rs. 80.49 lakhs (Rs. 99.48 lakhs). Together with surplus brought forward from the previous year (Rs. 43.22 lakhs) and

provision no longer required written back (Rs. 3.61 lakhs), the amount available for appropriation is Rs. 127.32 lakhs. A sizable sum of Rs. 95 lakhs has been transferred to the General Reserve.

Maiden dividend of 15%

The Company having cleared the arrears of dividend on the 11% Cumulative Redeemable Preference Shares for a period of 10 years even in 1983-84, the Directors have recommended a handsome maiden dividend of 15%, taxable, on equity shares which will absorb Rs. 25.16 lakhs. Even at this level, the nett profit for the

year provides a dividend cover of more than 3 times.

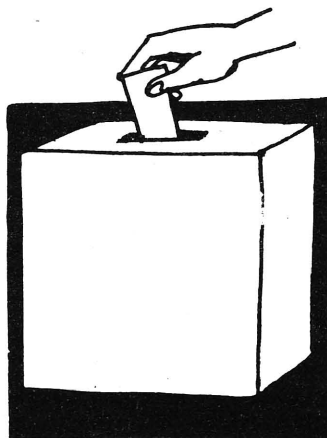
NEW PROJECTS AND DIVERSIFICATION

Magnesium Metal Project—India's first

In view of the sizable reserves of Rs. 248 lakhs against the Share Capital of Rs. 193 lakhs, a favourable debt-equity ratio (0.8:1), the Company is implementing the pioneering Magnesium Metal Project (MMP) to produce 600 tonnes of Magnesium Metal so vitally needed by space, defence aeronautics,

electricity, mint and other spheres. The Project would be unique in that it will be wholly indigenous—technology, capital equipment, raw materials and services—and at the same time lead to 100 per cent import saving. Considerable progress in civil works and Plant and Machinery have been made with an outgo of Rs. 1.4 crores on the Rs. 6 crore project. The Financial Institutions have also sanctioned the term loan of Rs. 380 lakhs for the Project. The Company is also exploring new areas to provide horizontal integration to the activities of the Company.

RESULTS OF ELECTIONS TO THE LOCAL BODIES



RESULTS OF THE ELECTIONS TO THE CHAIRMANSHIP OF MUNICIPALITIES:

Date: 23.2.1986

Total Municipalities	98
Elections Held	97
DMK	64
AIADMK	11
CONGRESS (I)	11
CPM	4

RESULTS OF THE ELECTION TO THE PRESIDENCY OF THE TOWN PANCHAYATS:

Date: 23.2.1986

Total Panchayats	626
DMK	184
AIADMK	120
CONGRESS (I)	89
CPM	23
JANATA	16
CPI	11
BJP	2
INDEPENDENTS	181

RESULTS OF THE ELECTIONS TO THE CHAIRMANSHIP OF PANCHAYAT UNIONS:

Date: 23.2.1986

Total Panchayat Unions	380
DMK	138
AIADMK	129
CONGRESS(I)	69

THE WORLD OF PRESS CONFERENCES

3000 COLOUR TV SETS FOR PANCHAYATS

The Tamil Nadu Government has decided to instal 3,000 colour TV sets in panchayats coming within the transmission range of the rel y stations in the State.

Hon'ble Local Administration Minister Thiru P. U. Shanmugam told newsmen on February 4th that the Government was also considering supply of video cassette players (VCPs) to these panchayats.

The VCPs would be used to screen short TV films produced by the Government on agriculture, family planning and hygiene.

MOTIVATION FEE MADE ATTRACTIVE

The motivation fee for private individuals who bring acceptors for sterilization operations, either vasectomy or tubectomy, has been enhanced to Rs. 50.

Till now only Government servants were given Rs. 50 at flat rate per case, and private

individuals received only Rs. 10 per vasectomy and Rs. 12 for tubectomy.

Hon'ble Health Minister Dr.H.V.Hande announced that hereafter Copper-T and oral pills would be supplied free of cost to all registered private medical practioners and nursing homes, both approved and un-approved. Now these are being supplied only to approved nursing homes.

The Minister requested the City doctors to contact the Directorate of Family Welfare, Egmore, and those in the districts to their respective District Family Welfare Officers to obtain the same.

NO DOMESTIC POWER CUT THIS YEAR

Thiru B. Vijayaraghavan, Chairman, TNEB, said that he hoped that there will be no power cut to domestic consumption or industries during this summer except 40 percent cut on high tension industries, already imposed.

Thiru Vijayaraghavan told newsmen in February 9th that the State had lost 1000 million units as a result of south west and north east monsoon failure

but the loss was made good on account of the cut imposed on high tension industries for some time now.

Explaining that the State's power position was not too bad, the Chairman said this year farmers got power for 14 hours at the rate of six hours in the morning and eight hours in the night.

The Chairman said the thermal stations were in a better condition this year, with two lakh tonnes of coal stock at Tuticorin and one lakh tonne at Ennore. All the three units in Tuticorin were functioning with full capacity to generate 630 Mw of power.

60,000 NEW PHONE LINES FOR MADRAS IN 7TH PLAN

The Madras City will get nearly 60,000 new telephone lines during the Seventh Plan with State telecom outlay for the period upto 1,990 touching Rs. 425 crore, TN Circle Telecommunications General Manager Thiru A.V.S.Mani told newsmen on February 8th.

In other areas in Tamil Nadu including major demand areas like Coimbatore and Madurai 1.06 lakh lines will be added.

During the current year, 3,000 lines will be available to Coimbatore. A Rs. 4 crore crossbar exchange there to be completed by March 1987, will facilitate further expansion, and help

3,000 more applications to the wait list. During the plan period Rs. 6 crore worth of projects to give 7,000 additional lines have been sanctioned for Coimbatore.

Madurai will get 1,500 lines, bringing down the waiting list to 1,500 and 3,000 additional lines have been sanctioned for Madurai during the plan.

During this year, 10 more stations will be added to the STD map in the State. The first of these is Tiruvonnmalai, where the facility will be available from February 13. Then Kalpakkam, Tiruttani, Arakonam, Manachanallur and Bodinaickanur will get connections before March, followed by Vaniyambadi, Cuddalore, Arni, Ambassamudram, Tenkasi, Shencottah, Sankarankoil and Vellakoil in six months.

In a new feature, point to point STD has been introduced between some stations, to connect suburbs with major cities. This will be added to five more centres soon, linking suburbs of Coimbatore, Erode, Kumbakonam and Pudukottai.

Telex expansion is also planned in a big way. The City will get 1,600 lines, all existing 'Stronger' exchanges will be converted into electronic ones. In addition, Coimbatore will get 370 telex lines, and Madurai 150 lines. Smaller exchanges in other parts of the State will get 800 lines. Public telex exchanges will be opened at Kovilpatti, Karaikudi, Karaiikal and Mandapam.

Electro-mechanical teleprinters will be replaced by electronic ones during the Plan period.

Thiru Mani said, that the first ever "electronic small automatic exchange" was to be opened at Amundi near Vellore. The exchange, designed by the telecom research wing, had been successfully tried as prototype, and a production model is to be installed, capable of being upgraded to 200 lines from the initial 50.

To improve international STD, a high power working group under Telecom Board member P.N. Chaudhary was to submit a report. Based on the recommendations all 59 stations would be upgraded to call any international city before end of this year, Thiru Mani said.

Other projects on the anvil are a Rs. 4 crore, 2,000 line digital trunk automatic exchange at Trichy. Automatic STD equipped with 2,500 line crossbar exchange for Sivakasi and Thanjavur at Rs. 5 crore and a Rs. 3 crore fibre optic link between Madurai and Trichy are also planned.

Nationally, the telecom budget would be in the range of Rs. 6,000 crore, although the Planning Commission has allotted only Rs. 4,000 crore. If the shortfall could not be made up, the target would have to be scaled down, Thiru Mani said.

TNEB TO COMPUTERISE OPERATIONS

Computerised "load despatch" network is being planned by the Tamil Nadu Electricity Board to help operation of the State grid in close co-ordination and co-operation with neighbouring State grids.

TNEB chairman, Thiru B. Vijayaraghavan IAS, who disclosed this to newsmen on February 7th said that as a first step, the "Main Load Despatch Centre," was to be operated from the Board headquarters in the city.

The modernisation of the load despatch centres with process computers, which will cost Rs. 38.7 crores, will be completed before 1990. The project report had been formulated in co-ordination with the Southern Regional Electricity Board at

Bangalore, and work will be taken up shortly.

He explained that with the amount of information to be processed becoming so large as the grid network became more and more complex, it could not be handled in the conventional manner as the timely processing of particulars with clarity was no longer possible. Computerised operation besides helping monitoring of the grid, demand, will also enable automatic control of generation at the power stations.

For the operation of the "main load despatch" centre, microwave link has been provided by the P&T department between Korattur and Anna Salai at a cost of Rs. 33.34 lakhs. The microwave link is initially equipped with 24 channels and can be expanded upto 300 channels, and will be formally commissioned by May. Meanwhile, testing of the links has been in progress. The whole main load despatch project had cost Rs. 70 lakhs.

Thiru P. Kameswara Rao, General Manager, Southern Telecom Project Circle, said that the entire micro-wave equipment had been made indigenously. Coded signals from Erode, Madurai, Kalpakkam, Ennore etc. received at the Korattur station of the Electricity Board will be transmitted through the micro-wave network to the main load despatch centre.

Thiru K. Krishnaswamy Rao, Chief Engineer (Operations), TNEB, said that the Madurai sub-load despatch centre when set up would help in communication of particulars from the Tuticorin thermal station. The existing load despatch centre at Erode will be converted into a sub-load despatch centre.

With the modern computerised regional load despatch

centres coming into being, a national despatch centre is to be set up in Delhi.

NEW NEYVELI POWER PLANT BY MARCH 20

The first 210 MW set of the second stage of the Neyveli thermal power station is likely to be commissioned and synchronised with the Tamil Nadu grid by March 20. Thiru M.P. Narayanan, Chairman, Neyveli Lignite Corporation, told newsmen on 24th February '86.

The Plant would shift into stable operations and attain its rated capacity three to four weeks later. Energy produced by the new set is to be shared by all the States in the southern region: Tamil Nadu 46.5 MW. Andhra Pradesh 25.5 MW. Karnataka 22.5 MW. Kerala 16.5 MW. Pondicherry 17.5 MW. NLC's internal needs will be 50 MW; about 31 MW remains unallocated.

Thiru Narayanan, however, pointed out that for the first two months or so, all the powers generated by the set would be absorbed by Tamil Nadu since the high capacity lines to carry power to other States were not ready. He said that NLC was laying three lines, one to Salem, one to Red Hills and one to Pondicherry at a total cost of Rs. 86 crores and these would be ready by the end of the year.

Asked about the tariff being considered for the energy from the new 210 MW set, Thiru Narayanan said that it would be negotiated with the various States over the next two months. "It will not be lower than 41 paise (the new average rate agreed for the power from the existing station)" he said.

Two more 210 MW sets are planned in the second stage

for which a new mine with a capacity of 4.7 million tonnes a year is being excavated. The total cost of the project is estimated at Rs. 960 crores.

GRAIN OUTPUT IN 1986 YEAR WILL BE 100 LAKH TONNES

Rice production in Tamil Nadu this year is likely to be around 54-lakh tonnes, the same as last year's inspite of drought and water supply difficulty in foodgrains production is expected to be in the neighbourhood of 100lakh tonnes.

Expressing this optimism the Hon'ble Agriculture Minister Thiru. K. Kalimuthu, told newsmen on March 4th the increased productivity achieved with the cooperation of farmers all over the State, to a great extent had offset the adverse impact of drought conditions in Thajavur district.

By and large, the farmers had followed the practices suggested by the department for "5 tonnes of paddy a hectare programme". Almost 50 per cent of the farmers had succeeded in the programme. In a few pockets like Pollachi and Mettupalayam the production had touched 10 tonnes a hectare.

The department was gearing itself to give a push to the programme of summer cultivation. The Minister said, Arrangement were being made to provide inputs in adequate quantities, so that larger areas could be cropped this season. The programme was to raise paddy on 2.75 lakhs hectares, and millets on 2.76 lakhs hectares. Pulses would be grown on 3 lakh hectares and cotton on 70,000 hectares.

With the thrust given to oil-seeds production. Thiru K. Kalimuthu said, there had been a gradual increase in both the acreage and output of coconut in the last three years. Compared with 1.4 lakh hectares under coconut in 1982-83, the present area was 1.54 lakh hectares, the output of nuts had also increased from 133 crores to 157 crores during the period. The programme of distributing 35 lakh high yielding seedlings a year would be continued he said.

TNEB PAY MORE FOR NEYVELI POWER..

The Tamil Nadu Electricity Board will pay the Neyveli Lignite Corporation for electricity supplied by the latter at an average rate of 41 paise per unit during the four-year period from April, 1, 1984.

The average rate for the previous four-year term (1980-81 to 1983-84) was 31.17 paise per unit.

An agreement to this effect was signed on Monday between Thiru B. Vijayaraghavan, Chairman, TNEB and Thiru M.P. Narayanan, Chairman-cum-Managing Director, Neyveli Lignite Corporation at the headquarters of the TNEB.

It stipulates that the base rate will be 36 paise per unit for the first year (April 1984 to March 1985) followed by annual rates of 39.125 paise, 42.50 paise and 45.75 paise during the remaining three year period.

The rates are exclusive of all taxes and duties, if any, but inclusive of normal escalations.

In effect, this works out to an average rate of 41 paise over the four year period ending March 31, 1988.

Both the Chairmen described the accord as "mutually beneficial", and Thiru Vijayaraghavan said "It is a satisfactory figure". Two years of deliberations brought about an amicable settlement, Thiru Narayanan said.

The TNEB would have to clear a total of Rs. 38 crore to the Neyveli Lignite Corporation by way of "Outstandings", as Thiru Narayanan put it. And Thiru Vijayaraghavan said that a cheque for Rs. 6 crore, was handed over leaving a balance of Rs. 31 crores.

The entire arrears will be cleared by the TNEB before the end of March 1987.

Thiru Narayanan clarified that the accord was in respect of power supplied from the existing thermal station. A few formula would have to be worked out for the second Thermal Station, one unit of which is scheduled to be commissioned in March 1986.

750 CRORE EXPANSION SCHEME FOR NLC

The Neyveli Lignite Corporation is contemplating expansion of the first thermal station (600MW) by adding two units of 210 MW each. Simultaneously, expansion of the first mine cut (6.5 million tonnes) to raise an additional 4 million tonnes lignite is planned.

Stating this at a press conference on 24th February, NLC Chairman-cum-managing Director, Thiru M. P. Narayanan

expected the investment to be of the order of Rs. 750 crores for both the schemes. The proposal was in an advanced stage of finalisation. It would be later sent to the Centre for clearance.

He said he was in favour of going in for more power generation to meet the growing demand in the region instead of utilising the additional lignite for other schemes proposed earlier.

The progress of work for commissioning the first 210 MW of the second thermal station (3x210 MW) was "Quite satisfactory". "We shall stick to the date-end of March - for the synchronisation, though efforts will made to advance it by a few weeks or so", Thiru Narayanan added. Lighting up and steam blow were over, and the next stage was to start rotating the turbine. He expected power generation to stabilise in three or four weeks after the synchronisation. In all possibility, Tamil Nadu would be able to get the power supply from May, the peak summer period.

Initially, the entire power from the first unit would go to Tamil Nadu. Allocation of power from the unit would be as per the formula decided by the Centre-46.5 MW for Tamil Nadu, 25.5 MW for Andhra Pradesh, 22.5 MW for Karnataka, 17.5 MW for Pondicherry, 50MW for NLC and 31.5 MW is to remain unallocated. The unallocated quantum was meant for distribution to the needy states.

The corporation was constructing 400 KV transmission network with three sub-stations at Salem, Red Hills and Pondicherry at a cost of Rs. 86 crores. These were scheduled to be completed by the end of 1986 or early 1987. Allotment of lands by the Tamil Nadu

Government for the sub-station at Salem would be sorted out shortly.

In order to raise resources for the expansion programmes, the corporation has decided to come out with bonds for Rs. 50 crores. The denomination for the bonds would be Rs. 500 and Rs. 1000 bearing interest at 14 per cent. In all probability, the issue would be in June/July.

The corporation, he said, was also able to raise about Rs. 70 crore from internal sources annually.

During the seventh plan, about Rs. 1,500 crore had been approved, and he would ask for more since there was need for a third mine cut and third thermal station of which a token provision should be made in the plan.

Thiru Narayanan said the NLC achieved a plant load factor of 72.13 per cent during the period April, 1985 to January, 1986, which was quite exemplary as compared to the other thermal plants in the southern region and the national average.

Plans for the expansion of the first mine, which now cater to the 600 MW station, to accommodate another two 210 MW sets are with the Centre for approval.

Calling attention to the fact that most machines in the existing 600 MW station had clocked more than 20 years of service, he said that it would not be correct to expect the sets to do better than the 70 per cent load factor that they had been maintaining all these years.

The NLC would float bonds in June to the tune of Rs. 50 crores he said.



Tamil Nadu Slum Clearance Board was formed in the year 1971 and has been carrying out three distinct programmes in the city of Madras.

I. a) Housing:

(1) Clearance Scheme.

b) Urban Development:

- (2) Improvement Under Accelerated Slum Improvement Scheme.
- (3) Improvement under Madras Urban Development programme.

Government extended the activities of Tamil Nadu Slum Clearance Board to the entire state of Tamil Nadu from 1983-84 in a phased manner in Municipal Corporations, District Head Quarters and Municipalities of Tamil Nadu. Now the Slum Clearance Board's activities have been extended to 43 towns so far.

TAMILNADU SLUM CLEARANCE BOARD

2 a) Clearance Scheme:

Tamil Nadu Slum Clearance Board constructed 45,980 tenements in Madras and Erode at a cost of Rs.4168.69 lakhs upto 1984-85. In recent years, the tenemental programme is assisted by the State Government's grant and Hudco's loan. Tamil Nadu Slum Clearance Board has availed of Rs.557.19 lakhs from Hudco as loan upto 1984-85.

During the year 1985-86 it is proposed to take up 1736 tenements and complete 512 tenements by utilising Government grant of Rs. 150 lakhs and by

obtaining loan of Rs. 188.00 lakhs from Hudco.

During 1986-87, 3570 tenements will be taken up costing Rs. 785 lakhs in the city of Madras and in mofussil towns. 1250 tenements will be completed with the Government granting Rs.200 lakhs and by obtaining loan from Hudco will be incurred during 1986-87. Rs.100 lakhs may have to be paid to Hudco for loan repayment.

2. b) Poor Class Housing:

The proposal under the scheme is to provide houses to the slum families in the Madras and Mofussil areas who are provided with basic amenities. Local materials or cheap and durable building materials adopting low cost technique will be utilised for the construction of houses. The houses will be given on rental or Hire Purchase basis as in the case of tenemental schemes.

During 1985-86, 2010 Poor Class Housing at an estimated

cost of Rs. 231.931 lakhs will be constructed at Periyar Nagar, Madurai. Hudco loan assistance has to be repaid over a period of 20 years by collecting installments from beneficiaries through hire purchase sale from Government in case of rental schemes. 34,331 houses will be completed at a cost Rs. 10.76 crores during 1986-87.

Sites and services schemes are proposed to be formulated in certain vacant lands available with Slum Clearance Board.

During 1985-86, it is proposed to take up development

of Rs. 425.04 lakhs upto 1984-85.

During 1985-86 schemes for 3500 families will benefit at the cost of Rs.70 lakhs.

During 1986-87, 8000 families will be covered and an expenditure of Rs. 100 lakhs will be incurred.

3. Environmental Improvement in Urban Slums: (Government of India Funds)

Under the new twenty points programme incentive scheme Government of India have come forward to assist Environ-

M.U.D.P. Scheme being implemented in the Madras City with World Bank Loan. The slum improvement under M.U.D.P. contemplates environmental improvement, land tenure and home improvement loan of Rs. 1500 to Rs. 3,500 according to income range.

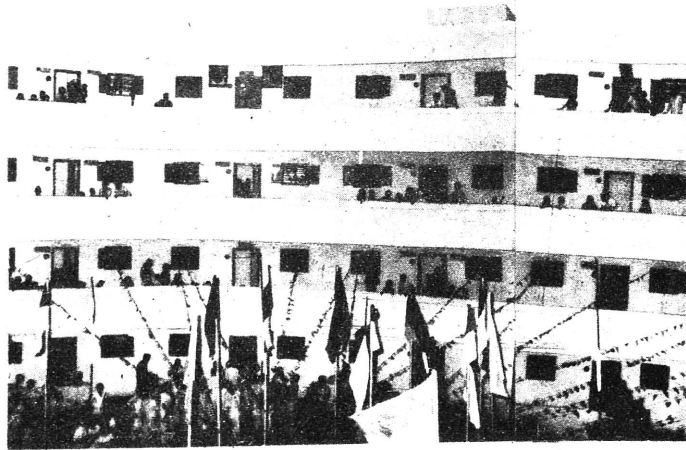
Under M.U.D.P-I Slum Clearance Board implemented slum improvement scheme at a cost of Rs. 4,43.65 lakhs and 24,862 families were benefitted. The Scheme was started in the year 1977 and came to a close by 1982. MUDP-II was started at an estimated cost of Rs. 27.80 crores. 32,000 families were benefitted at a cost of Rs. 1415.77 lakhs upto 1984-85.

Rs. 500 lakhs have been provided for the year 1985-86 benefitting improvement for 10000 families.

33,573 families executed L.C.S. agreement for getting land tenure and 25,146 families availed of loans amounting to Rs. 477.167 lakhs for constructing improving their houses upto 1984-85.

Rs. 250 lakhs have been provided for disbursement as loan in the year 1985-86 for house construction. A provision of Rs. 130 lakhs has been provided under M.U.D.P-II for 1986-87.

Upto 1984-85 a sum of Rs. 422 lakhs was spent, a sum of Rs. 15.00 lakhs have been provided for year 1985-86 for this purpose. When the programmes of Madras Corporation and Public Works Department are completed, it is expected to provide relief to a large number of families living in low areas from the threat of floods.



of 1842 plots at an estimated cost of Rs. 86.49 lakhs. Out of this Rs.40 lakhs will be spent during the year by obtaining loan from Hudco to benefit 800 families. 1042 families will be covered at a cost of Rs. 46.49 lakhs during 1986-87.

Improvements like roads, public fountain, street lights P.C. Units etc., are provided under this Scheme.

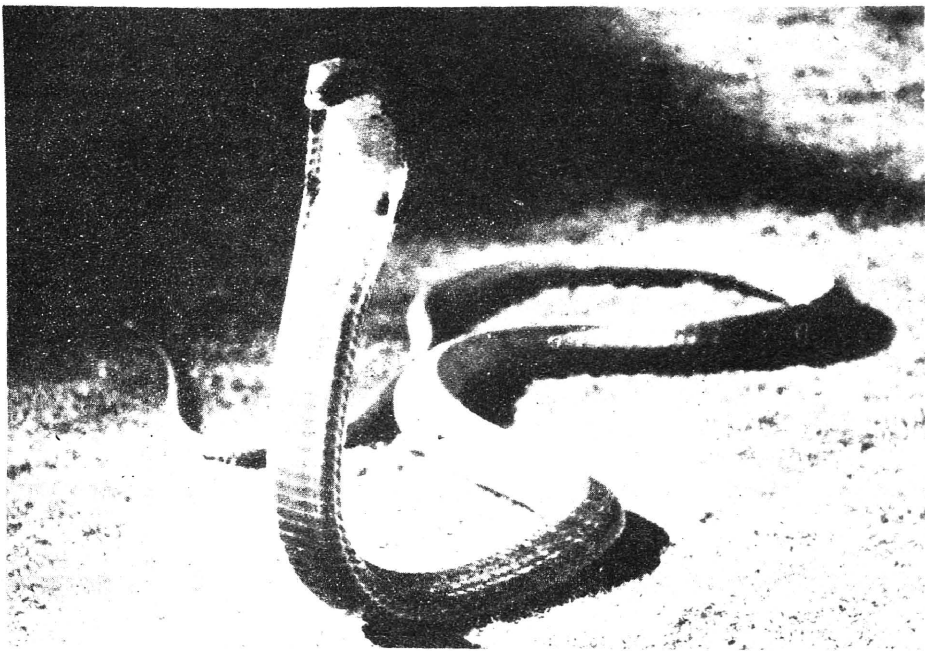
64,448 families were covered by this scheme at an expendi-

mental Improvement of Urban slums from 1983-84 onwards.

Upto 1984-85 a sum of Rs. 72.94 lakhs was received from Government of India and 34,324 persons were benefitted at a cost of Rs. 56.05 lakhs. During 1985-89 it is proposed to spend the balance amount of Rs. 16.86 lakhs covering 7255 persons. Government of India discontinued of this programme from 1985-86.

4. Madras Urban Development Project:-

Slum Improvement is a major component under the



KING COBRA THE DEADLIEST SNAKE

The King Cobra commonly called Hamadryad (Rajnagam or Karuppunagam) in Tamil is a much feared snake in the world because of its fearsome length for a venomous snake and massive venom that can kill a beast and man alike within a very short time. It is ordinarily 12-14 feet long but has been known to attain an unbelievable length of 18 feet sometimes. It is a slender, graceful serpent with a narrow hood and to a non-specialist it is like a over-sized rat snake. Although it cannot spread its hood as wide as that of a cobra, it rears four feet high which by itself is a spectacular scene in a jungle country. The King Cobra prefers a jungle environment assured of copious rains and dense forest. However, it does not restrict itself to the wooded districts as it is met

within the plains and mangrove swamps'. It is decidedly a rare snake in India now as it is found only in the dense forests of foot-hills of Himalayas, West Bengal, Bihar, Assam, Orissa, Western Ghats, Andamans and the mangrove forests of Sunderbans.

T.S.N. MURTHY

CONSPICUOUS COLOUR

The King Cobra is an olive-green snake with indistinct lighter crossbars across the back. The skin has a beautiful velvety sheen. The throat is yellow or orange. The young are jet black with prominent chevron-shaped marks down the back.

SNAKES AS FOOD

The King Cobra chiefly feeds upon snakes—both harmless and venomous kinds. The only other food it relishes is the monitor lizards. It does most of its hunting during the day.

MATERNAL INSTINCT

The female King Cobra is unique in being the only known snake to construct a two-chambered nest, a strange act by any snake. Prior to deposition of eggs, the female sweeps the forest floor with the forepart of its body and drags the dead leaves and decaying sticks into a mound of heap. Within the heap is the real nest partitioned into two chambers; the lower compartment for the eggs and the upper for the

breeding male. The female lies coiled upon around the 24-40 eggs for the entire period of 60-90 days it takes for the eggs to hatch. The male will also be on attendance by remaining near the nest. The young when born are 20 inches in length, a good enough size for the would be giant venomous snakes.

LETHAL VENOM

The massive venom glands of the adult king Cobra keep in reserve venom up to 500mg. An elephant bitten by the King Cobra is said to die in about three hours. And a healthy man if bitten by it can hardly survive for half-an-hour after the fatal strike. The instances of the King Cobra fatally attacking huge beasts like elephants may or may not be believed, but one thing is certain: Given a chance, a King Cobra's venom could easily extinguish the life in an elephant.

Despite the reliable accounts of a few cases of its unprovoked attacks on humans, it is rash to conclude that the average King Cobra attacks men and beasts deliberately. But the female guarding its nest is reported to be extremely savage, hostile and intolerant of any human intrusion. A brooding female if disturbed at its nest is said to raise four or five feet from the ground, hiss nagrily, growl like a dog and stand its ground. Herpetologists conclude that the King Cobra makes every possible effort to avoid an encounter with man.

INTELLIGENT

King Cobras are described as intelligent animals and are even credited with some sort of "reasoning powers". King Cobras kept in the zoos seem to recognise the zoo attendants who care for them but exhibit aversion for strangers. Further,

during feeding time they come to the door of their cages, assume a graceful cobra-like pose, and stare intently at the keeper and even follow his movements by turning their heads in the direction of the keeper's activities.

King Cobras are rare snakes and hence declared as endangered animals. The wild life act, 1972 affords protection to this giant. Since the King Cobras are the most popular exhibits in the zoos and snake parks all over the world, there is a heavy demand for supply of freshly caught individuals leading to their reduced numbers in nature. Attempts are therefore made to breed them in captivity. In recent years the Madras Snake Park has successfully bred this deadly serpent in captivity. While these are welcome signs ensuring a fresh lease of life to the King Cobras, the real protection of these creatures can be achieved by affording adequate protection of their habits.

Our literature, art and architecture are fine specimens of human intelligence, but they bear the ravages of time and also the effect of currents and cross-currents so that to-day, we have to listen to the foreign historian, or scholar in order to realise the glory and grandeur of Tamil Nadu. Our culture and civilisation are hoary but we have allowed scars and wrinkles to disfigure them. It is our duty, therefore, to re-discover and re-construct what is ours.

Truly great has been our achievements in the field of

literature. To be able to announce to the world that we, Tamilians, do possess great literature and to represent to the world and the entire humanity, the great Thirukkural are something about which we can have pardonable pride.

Carry on the crusade against caste which cannot co-exist with democracy; against superstition which cannot co-exist with science and against tyranny of various dimensions which cannot co-exist with liberty, equality and fraternity.



INTRODUCTION

Shrimp is landed all along the coast of India and in 1982, out of the world's shrimp landings of 1.75 Million Tonnes, as much as 1,70,000 tonnes were from India. India is the single largest exporter of shrimp accounting for 12% of shrimp exporting wide in the world. In over all Marine fish landings in India during 1982, shrimp alone accounted for 11.4 percent. West Coast contributes to more than 82 percent of country's annual shrimp landings. Eventhough West Coast is a bigger producer, but in items of size, the shrimp landed in the East Coast are much larger and fishery is done by large trawlers. (Rao. J.N. 1984) The shrimp landings in Tamil Nadu State alone during 1981-1982 was 15,582 tonnes and Tamil Nadu landed Third in shrimp production (MPEDA. 1983).

Thiru P. KRISHNAN.

Deputy Director of Fisheries,

NEED FOR CULTURE :

Shrimp processing factories depend upon the shrimp catches in the inshore waters. There are rich deep sea shrimp fishing grounds which remains yet to be commercially exploited. A shortage in raw materials have been experienced by many processing factories making its operation uneconomical. Increased input cost on fishing, supply from catches has become stagnant and the only solution is to enter in Intensive Prawn Culture.

AQUACULTURE OPPORTUNITIES

Brackish water resources in Tamilnadu has been estimated to be 56,000 hectares out of

which 15,000 hectares are readily available for construction of farms. In Tamil Nadu there are 52 estuaries, extensive back waters; lagoons, Mangrove swamps and a large brackish water lake (as on 1980).

Among the different varieties of shrimps that occur in Tamil Nadu, only two species have been found to be more suitable for farming namely *Penaeus monodon* (tiger shrimp) and *Penaeus indicus* (white shrimp). The Shrimp seed of these two species occur in the estuaries and backwaters and also forms a part of the fishery. *P. indicus* is a dominant species forming more than 60%. The fish species that occur in the natural systems are the Milkfish *Chanos chanos* and

Tamil Nadu by the State Government at various centres are :

1. Culture of Shrimps in undrainable ponds
2. Culture of Shrimps in drainable ponds
3. Culture of Shrimps in floating cages
4. Culture of Shrimps in Pens.

Culture of Shrimps in Un-drainable Ponds:

The Indian Council of Agricultural Research selected the Madras Centre as one of the Centres in All India co-ordinated Research Project on Brackish Water Farming. The Project commenced in 1974 and completed ten years of study. The total water spread

COASTAL AQUACULTURE IN TAMILNADU

Mulletts, which are suitable for farming. The seeds of *P. indicus* are available from August to December and the seeds of *P. Monodon* from March to June and September to December. The Milk fish fry occurs during April and May. The extensive backwaters, Mangrove swamp serve as an excellent nursery areas for these shrimp and fish to grow and return back to the sea to complete their life cycle and form a fishery.

METHODS OF FARMING SHRIMP

The different methods of shrimp farming being tried in

area of this research farm is 3.8 hectares with two rearing ponds and eight nurseries. Suitable pond management methods were evolved for nursery and for grow out rearing. Some of the major achievements are, in monoculture of *Penaeus monodon* a production of 514.700 Kg/ 80 days was obtained in 1.14 hectares pond at a stocking density of 20,000 per Ha. (Sundararajan experimental 1978) In monoculture of *Penaeus indicus* a production of 682.450 Kg/ha/110 days was obtained in 1.14 ha. pond at a stocking density of 70,000 per hectare. (Srinivasan experimental 1984). In polyculture systems with 2 crops of *Penaeus indicus* at

37,000 per hectare and one crop of *Chanos Chanos* at a density of 6,000 per hectare, a production of 1111Kg. of shrimp in two crops and 1085 Kg. of *Chanos Chanos* in one crop was obtained in 150 days of rearing.

Culture of Shrimps in Drainable ponds

Brackish Water demonstration shrimp farms which could be filled in by pumps and drained by gravitational flow and prepared for the next crop by drying, ploughing and gradually filling up with water, have been constructed in all the coastal districts by the department of Fisheries. The demonstration shrimp farms are located at Pulicat, Vanianchavadi, Portenove, Thondiakadu, Eripuraikarai, Kattumavada, Karangadu, Kannamunai, Punnakayal and Keelavaipar. The individual ponds range from 0.8 Ha to 1.2 Ha. in area. Each pond has been provided with a 7.5 H.P. pump. The stocking density adopted for these ponds range from 25,000 per hectare to 50,000 per hectare. A maximum production of 450 Kg/ha./crop has been obtained from these ponds.

Shrimp culture in cages

Studies on cage culture of Prawns are being carried out at Ennore and Vanianchavadi backwaters. Prior to this, experiments were conducted at the Muthukadu Lagoon in Kovalan backwaters. Velon Screen cage of 10m, 40m, 50m and 60m were used for culture of shrimps (Sampath and Menon, 1975), Rajendran and Sampath 1975, Siddharaju experimental 1980a, 1980b, Rajendran and Siddharaju 1983 and Krishnan experimental. 1983). Experiments were conducted in fixed and floating

cages and it was observed that floating cages are more advantageous giving better growth and survival. The maximum production of *Penaeus monodon* was 271 gms/m crop of 100 days at a stocking density of 11.25/m and for *P. indicus* a maximum production of 206.7 grams/m/crop was obtained at a density of 20 juveniles/m.

Culture of Shrimps in Pen

The Pen culture project commenced from 1982 in Killai backwaters in South Arcot District with the support of FAO/BOBP. Pens were constructed with knotless nylon webbings (10mm stretched reinforced mesh of HDPE (14 mm mesh and 36 mesh depth) HDPE rope and casuerianapoles. Extrapolated production for a single crop has been 500 kg/ha and an annual production, of 1500 kg/ha. in three cycles of production. This has been achieved at a stocking rate of 45,000 per hectare with 5 to 10 per cent of body weight given as supplementary feed during the rearing period. (Rabindranath Roy 1985).

The present objective is to develop a strategy and plan for the Pilot extension phase of Shrimp pen culture based on

the results of Socio Economic Study and the technical study.

CONSTRAINTS AND ALTERNATIVES

Majority of the rivers are seasonal depending upon the monsoon, the opening of the river mouths (bar) depends upon the flow of water in the rivers. In coromandal coast and Gulf of Mannar the estuaries remain connected with the sea for four to six months in a year, during shells forming is possible. When the bar mouth gets closed, hypersaline condition prevails and large volumes of underground fresh water has to depend upon for reducing the salinity.

The tidal amplitude in Tamil Nadu averages 0.7 meters and is less than one meter. Ponds entirely depended upon tides cannot be constructed. If tides are to be used the ponds become undrainable retaining water throughout the year and requires special management procedures for eradication of predators and competitors and other pond preparation methods.

The availability of seeds is unpredictable and seasonal and more over large scale farms cannot rely upon natural resources as it would affect the



fishery. Realising this a Pilot Project on Shrimp Hatchery is functioning at Santhome with 50% financial assistance on Capital investment by Marine Products Export Development Authority.

Unconventional feeds such as hens egg yolk and Accetes species suspension is used for post larval shrimp production. A maximum survival of 20 per cent has been achieved so far. In addition to this for production of shrimp seed, the Tamil Nadu Fisheries Development Corporation Ltd. has proposed to establish a shrimp hatchery at Neelan-garai in Chingleput District with 50 percent of financial assistance from Government of India. The proposed hatchery Production capacity is 16 Million PL 20 to start with.

The ban on construction of building upto 500 meters from the high water made along the coast prevent the development of hatcheries. Areas suitable for establishing hatcheries needs to be identi-

fied by the department and policy of the Government needs revision permitting the establishment of hatcheries.

The policy of the Government is that land suitable for brackish water farming should be exploited by Government agencies or fishermen co-operatives only. Therefore the Private Enterpreneurs interested to invest in this field are not provided with areas suitable for farming. Therefore the entire responsibility is vested with Government Institution and Co-operatives. This Policy also needs revision and lands suitable for farming can be allotted to private enterpreneurs since this is a capital intensive scheme and a fisherman cannot afford to invest.

A present wet feeds comprising of oil cake, rice bran, trash fish and processing factory offered are being provided at 5 to 10 percent of total body weight. If feed is not fully consumed large quantities

of rice bran enters the aquatic eco system and increases the organic load. This organic pollution will be detrimental to environment.

The department of Fisheries is formulating various feeds by compounding pellets in Fisheries Technological Station, Tuticorin and conducting field trials at various centres. On assessing the suitability of feeds, a feed mill would be necessary for large scale production of feed.

CONCLUSION :

Shrimp farming is a viable technology, and methods for farming by various systems depending upon the available site can be taken up. The other priorities for development are culture of algere such an *Gracil-lacia* species, Culture of Oysters, Green mussels and the culture of Green crab *Scylla* Serrata.

DO GOOD ANYWAY

People are unreasonable, illogical and self-centered.

Love them anyway!

If you do good, people will accuse you of selfish ulterior motives.

Do good anyway!

If you are successful, you will win false friends and true enemies.

Succeed anyway!

Honesty and frankness make you vulnerable

Be honest and frank anyway!

The good you do today will be forgotten tomorrow

Do good anyway!

The biggest people with the biggest ideas can be shot down by the smallest people with the smallest minds.

Think big anyway!

People favour underdogs but follow only lop-dogs

Fight for some under dogs anyway!

What you spent years building may be destroyed overnight

Build anyway!

Give the world the best you have and you'll get kicked in the teeth.

Give the world the best you've got anyway!

(Excerpts from 'Tough Times Never Last. But Tough People Do')



1. Many geologists believe that continents that were once part of a single land mass has since been slowly drifting apart. This is called the 'Continental Drift'. Who set forth this theory in detail?
2. When does the Speaker or the Deputy Speaker participate in the Proceedings of the house and does not Preside?
3. Who said this? "The trouble with the world is that the stupid are cocksure and the intelligent full of doubt".
4. Who wrote 'Savitri'?
5. How many nations are members of the Non Aligned movement?
6. Michael Gross, the great swimmer from West-Germany is known as "the Albatross". Name the swimmer who is known as the 'Packet-rocket'?
7. Expand 'AWACS'.
8. What is a Telstar?
9. Who is the first woman to go into space?
10. Which is the religious book of the Jews?

Answers

1. Alfred Wagner, a German Geologist in 1912
2. When a resolution for his removal is discussed by the house.
3. Bertrand Russell
4. Sri Aurobindo Ghosh.
5. 101
6. Jon Steen of Australia.
7. Airborne warning and control system.
8. Telstar is an instrument to transmit wire-less or television broadcasts more distinctly across continents across space.
9. Valentina Vladimirovna Tereshkova by the spacecraft 'Vostok 8' in 1963.
10. Torah

Tamil Arasu

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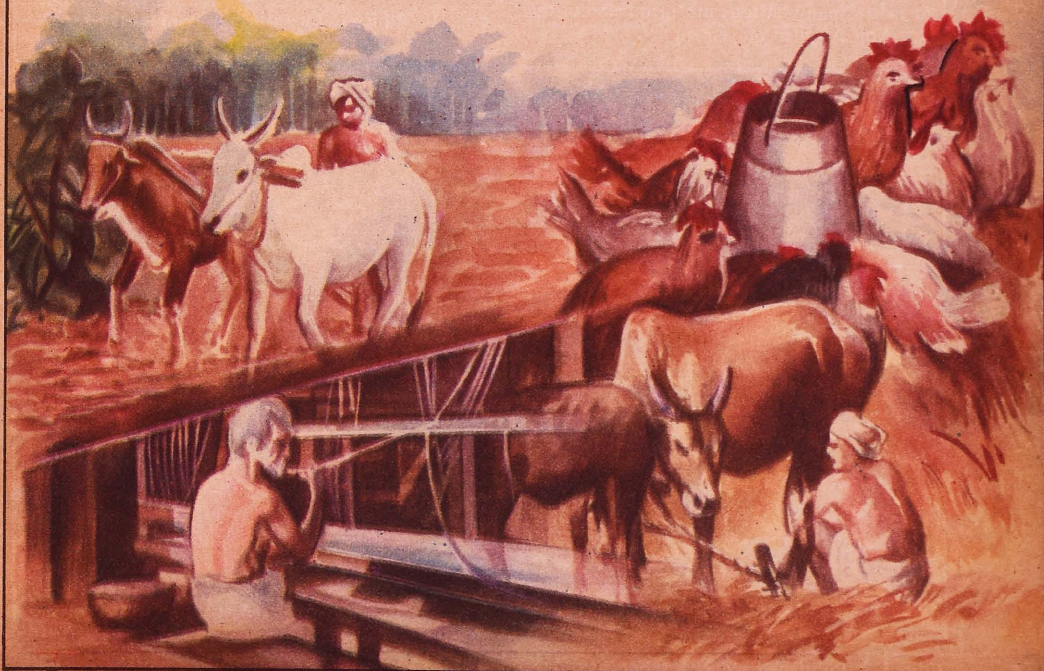
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- ★ Setting up of large and medium scale industries in Public and Joint Sector mostly in industrially backward areas.
- ★ Investing in the share capital of Joint Sector.
- ★ Assisting the large and medium scale industries in the Joint Sector in obtaining technical collaboration, selection of equipment and the plant site
- ★ Liaise with State and Central Govt. Departments and Financial Institutions to secure letters of Intent, important approvals, term loans etc.
- ★ Providing Employment for 15,520 persons in 41 projects at an investment of Rs. 600 crores.
- ★ Creating Employment for 12,000 persons in 10 projects at a further investment of Rs. 400 crores.

E.V.K. SULOCHANA SAMPATH
Chairperson

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