

# Tamil Arasu

AUGUST 1999 Rs.5







**நமது அன்றாட  
பழக்கவழக்கங்களால்,  
எய்ட்ஸ் வராதது.  
அதற்கு நீங்களே  
ஒரு உதாரணம்.**

காலையில் எழுந்தது முதல் ராத்திரி படுக்கப் போகும் வரை நீங்கள் எத்தனையோ பேரைச் சந்திக்கிறீர்கள். ஓட்டலுக்குச் செல்கிறீர்கள், சினிமா பார்க்கிறீர்கள், நெரிசலான பஸ்ஸில் பயணம் செய்கிறீர்கள், பலருடன் கை குலுக்குகிறீர்கள்.

இவர்களில் யாருக்காவது எச்ஐவி/ எய்ட்ஸ் பாதித்து இருக்கலாம்.

சாதாரண பழக்கவழக்கங்களின் மூலம் எய்ட்ஸ் பரவுவதாக இருந்தால், உங்களையும் எய்ட்ஸ் பாதித்திருக்க வேண்டும்.

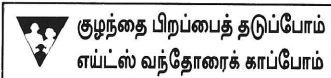
ஆனால் அப்படி இல்லையே...

ஏனெனில், கை குலுக்குவதாலோ, உணவைப் பகிர்ந்து கொள்வதாலோ, தொடுவதாலோ, தும்மலினாலோ, கழிப்பிடத்தை அனைவரும் உபயோகிப்பதாலோ, எய்ட்ஸ் பரவுவதில்லை.

எனவே எய்ட்ஸ் பாதித்தவரைக் கண்டு நீங்கள் ஒதுங்க வேண்டியதில்லை. உங்களுக்கு எந்த ஆபத்தும் இல்லை.

அவர்களும் நம்மைப் போன்றவர்கள்தான். அவர்களுக்கு எப்பொழுதும் போல நாம் அன்பும், ஆதரவும் காட்டுவோம்.

**சிறிதளவு ஆதரவு பெருமளவு  
சுமையைக் குறைக்கும்.**



மேலும் விவரங்களுக்கு அணுக வேண்டிய முகவரி:  
தமிழ்நாடு எய்ட்ஸ் கட்டுப்பாட்டு அமைப்பு  
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# TAMIL ARASU

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## I & IV WRAPPERS

The Hon'ble Chief Minister Kalaignar M.Karunanidhi hoisted the National Flag and distributed sweets to the Children on the occasion of the Independence Day, at the ramparts of Fort St.George on 15-8-1999.

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# Victory to India! Long live Tamil Nadu!!

- The Hon'ble Chief Minister, Kalaingar  
while hoisting the National Flag at the Ramparts  
of Fort St. George on 15th August, 1999.

**“We** celebrate the Independence Day every year; we have been forced to celebrate the election mela also every year.

This hard-earned freedom we got after thousands of our countrymen suffered in the prisons, and were subjected to torture and shed their tears and blood to drive away the foreign domination.

To-day is the day when we take the vow - to safeguard the hard-earned freedom - to protect every inch of our land from foreign invasion - to make this a great nation in the world, to strengthen and glorify this country.

To-day we have witnessed the fighting in the Kargil sector and have seen success made by our forces; we are marching ahead without conceding an inch to the enemy infiltrators.

We pay homage with tears in our eyes to the martyrs of our country who have laid their lives in this great task in the snow ranges of the Himalayas.

We particularly salute the great Heroes from Tamil Nadu who had gone to the Kargil-front and had sacrificed their lives for this great country.

- ★ Major Saravanan from Bhima nagar, Trichy,
- ★ Naik R. Kamaraj from Thanjavur
- ★ Chopper Jayavelu from Kattukkanallur, Thiruvannamalai
- ★ Gunner Palani from Oosimalaikuppam, Thiruvannamalai
- ★ Lt. Col. Raghavan from Tambaram
- ★ Senthil from Karianampatti - Theni
- ★ Basker from Trichy
- ★ Havildar Safiyullah from Kaveripattinam
- ★ Abdul Sathar from Coonoor, The Nilgiris

- ★ Mukilan from Kotur, Sivagangai and
- ★ Prasad from Paingulam, Kanniyakumari.

They are the Heros of the 'New Pura Nanooru' of Tamil Nadu.

People like them have left their near and dear in the hope that we and the country will take care of them. The State and Central Governments have taken up this responsibility of providing a decent life for the families of the martyrs.

Rupees 5 lakhs have been given as cash relief to each of the 11 families of the deceased heroes:

Orders have been passed,

- ☐ allotting a higher income group flat worth Rs.7 to 11 lakhs to each of the bereaved families;
- ☐ providing Government jobs on compassionate grounds to the legal heirs of these families;
- ☐ meeting the educational expenses of the children of these families till they complete their graduation.



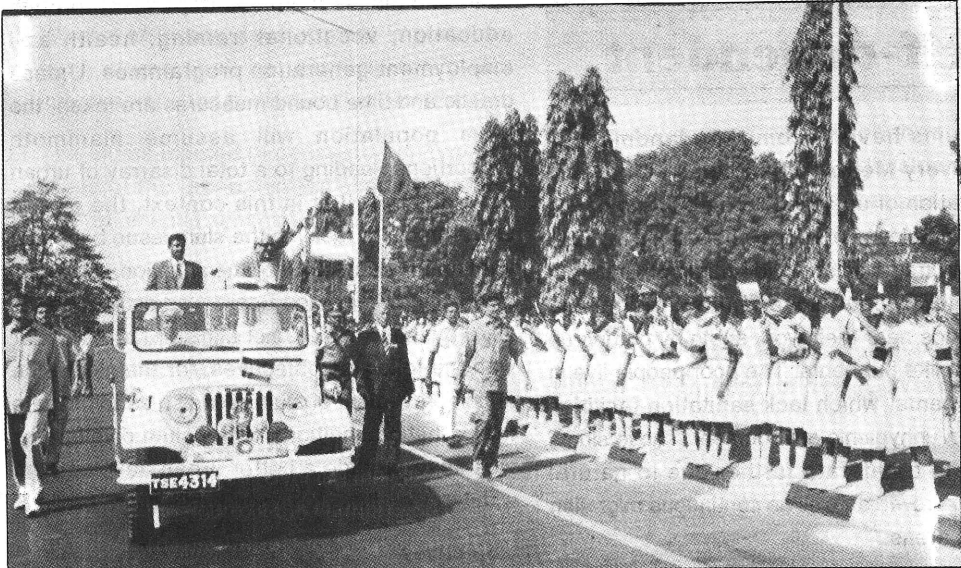
Orders have also been issued providing reservation of seats in engineering, medical and Arts Colleges for these children.

A senior officer of the Ex-serviceman Welfare Board has been appointed as Special Officer to visit each and every one of the families of those who died or injured in the Kargil Sector, to ascertain the family circumstances and to provide immediate relief from the State and Central Governments and to get the other requirements of these families fulfilled by the Government.

I am handing over another Rs.25 crores from these funds tomorrow to the Prime Minister.

Our Country has seen many achievements after independence; still we have to show many more achievements.

Nobody can forget that it is we who got the State Chief Ministers the freedom to hoist the National Flag on the Independence Day from the Ramparts of the Fort.



A huge amount has been received for the Kargil Defence Personnel Relief Fund established by us for this noble cause. Tamil Nadu stands first and has set an example for other States in raising the Kargil Defence Personnel Relief Fund.

I am proud to say that the liberal contributions from the people of Tamil Nadu to the relief fund in response to the appeal made by the State Government in the last week of June have exceeded rupees fifty crores i.e. Rs.50 crores and 43 lakhs in 52 days.

This awakening is a symbol of the unbounded patriotism shown by the people of Tamil Nadu.

I have earlier handed over Rs.15 crores to the Prime Minister from the Kargil Defence Personnel Relief Fund on behalf of the people of Tamil Nadu.

To-day is Independence Day. Ours is a free Country. Yet there is no freedom on this Independence Day for us to explain the plans and achievements of the Government, or to announce new schemes. This is due to the orders of the Election Commission; and this is because of the problem of frequent Elections.

For starting the schemes already announced, and for implementing the schemes started, there should be a stable Government at the Centre and the continuance of the peaceful rule in the State.

We will take a pledge on this Independence Day to ensure this; and complete the task:

Victory to India. Long Live Tamil Nadu". ★



# **The slum clearance, improvement and resettlement policy to give a social uplift and make self-dependent**

**S**lums have become the landmark of every Metro, Urban cities and towns. The migration of unskilled labourers into city in search of employment causes new slums. Due to lack of required skill and their sufficient income, they occupy vacant Government/Poramboke/Private lands near their work spots by putting up mushroom like hutments. The poor people live in such hutments, which lack sanitation facilities resulting in unhygienic environment. Those slums continue to proliferate further due to natural population growth as well as continuous migration from rural areas.

Due to over crowding in small piece of land the slums become dense. These slum dwellers need to be rehoused in proper settlements with all basic infrastructures to protect them from vagaries of monsoon, fire and flood. Keeping in mind the cost overrun and continuous maintenance cost, an immediate remedy has to be thought of to benefit more families within a time frame and budget by providing all necessary basic infrastructure simultaneously.

The slum dwellers squatting on objectionable areas are to be necessarily rehabilitated in alternative places with the required infrastructure nearer to city limits due to inability to take up neither clearance nor improvement programmes

in those areas. In order to facilitate desilting operation and improve Cooum/Adyar river, Buckingham canal and Otteri Nullah under the Chennai Flood Relief Project, it has become necessary to resettle the slum dwellers elsewhere not only to protect them from flood but also to prevent pollution.

The slums are the manifestation of urban poverty. The slum clearance, improvement and resettlement policy addresses to give a social uplift and makes them self-dependent through education, vocational training, health and employment generation programmes. Unless drastic and time bound measures are taken, the slum population will assume mammoth proportions, leading to a total disarray of urban development. It is in this context, the role of Government in tackling the slum issue becomes pertinent. Taking stock of the situation, the Tamil Nadu Slum Clearance Board was established in 1970 by the Hon'ble Chief Minister Dr. Kalaignar with the following objectives, for the clearance and improvement of slum areas so as to mitigate the pathetic conditions of the slum dwellers as well as to provide a better urban development with tenurial rights to the erstwhile slum dwellers.

## **Objectives**

- ★ To resettle and rehabilitate the slum dwellers located in flood prone and other vulnerable areas of the urban centres in an environmentally clean atmosphere at the periphery of the city by ensuring all basic facilities.
- ★ To safeguard the tenants in private slums and to provide security of tenure.
- ★ To provide basic amenities like drinking water supply, roads, storm water drain, public conveniences, sewer lines, street lights etc. to all the slums.
- ★ To improve their standard and ensure better quality of life to all the slum dwellers.



## Policy on Slums

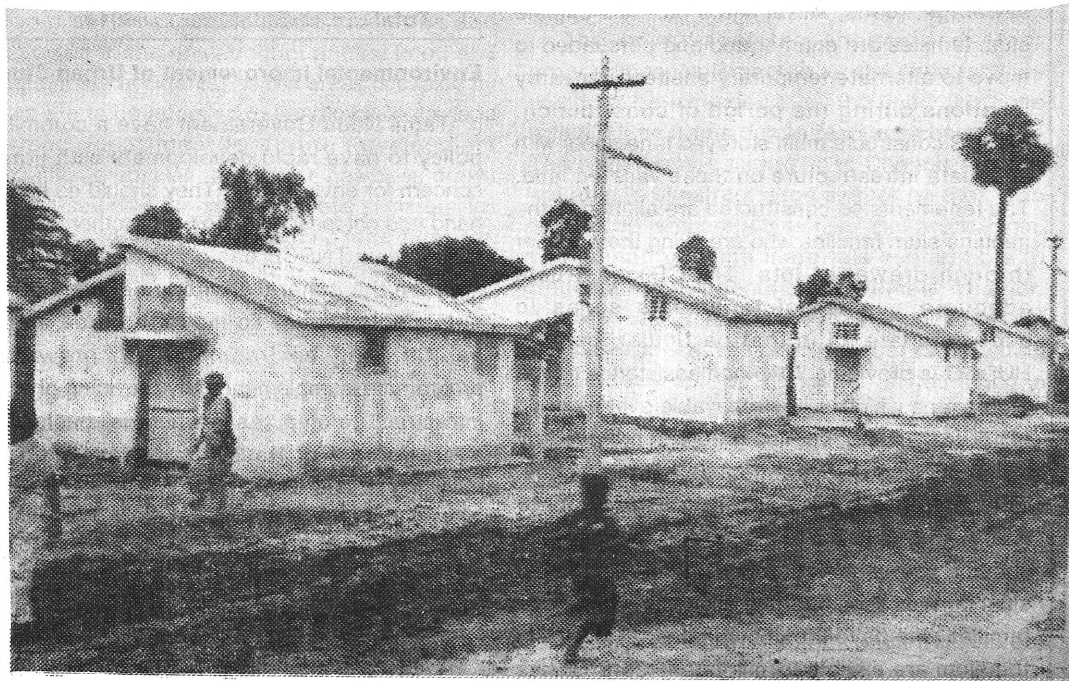
- ❑ In view of the pressing need for redressing the problems of slums, within the limited financial resources, the emphasis will be on clearance and improvement of slums.
- ❑ It aims at providing good shelter to the slum dwellers at affordable cost.
- ❑ It promotes participation of the slum dwellers in clearance and improvement of slums.
- ❑ Wherever in-situ development is possible, such slums shall be taken up for in-situ improvement and basic facilities provided.
- ❑ The slums located in congested unhygienic areas of the urban centres shall be cleared and tenemental schemes put up.
- ❑ Wherever neither tenemental schemes nor in-situ development is feasible, rehabilitation through sites and services approach shall be followed. Under this approach, the cost of

development of sites will be kept at a limit affordable to the slum dwellers.

Tamil Nadu Slum Clearance Board has been adopting the following concepts to convert the above policies into programmes:

- The families living in hutments in congested unhygienic areas of the urban centres are rehoused in multistoreyed tenements constructed in the same area.
- The slums are significantly improved with basic infrastructure and conferment of land tenure and make it a good habitat.
- The slum families encroached in areas required for further urban developments like MRTS, pavements, road margins and water course areas are being resettled and rehabilitated near city limits in storeyed tenements.

The Tamil Nadu Slum Clearance Board is the official machinery of the Government for



implementing the policy on slums. The Board is governed by a Chairman, Managing Director and 10 members representing various departments of the Government. The Board formulates various programmes as detailed below, keeping in mind the motto "We shall see God in the smile of the poor".

### Slum Clearance Programme

More than 35% of the city population in Chennai are living in slums and 50% of them are in dense slum areas. These areas are devoid of basic amenities and a single hut is being shared by 2 to 3 families. The families living in these habitations are affected by frequent fire accidents and seasonal floods. In view of the dense nature, these slums cannot be improved in situ. Hence TNSCB has programmed to resettle the slum families living in dense areas in multi storeyed tenements.

The slum clearance programme envisages the construction of multi storeyed tenements with adequate infrastructure like water supply, sewerage, roads, street lights etc. The eligible slum families are enumerated and persuaded to move to alternate temporary shelters in nearby locations during the period of construction. TNSCB constructs multi storeyed tenements with adequate infrastructure on those vacated land. The tenements so constructed are allotted to the genuine slum families who are living there earlier through drawal of lots. TNSCB constructs adequate number of tenements so as to accommodate all in that particular locality. HUDCO is providing 70% loan assistance to this programme which will be repayable over a period of 15 years. The remaining 30% is provided by the Tamil Nadu Government as margin money. The cost of tenement at present works out to Rs.1 lakh. TNSCB make sure that the temporary shelters put up earlier are cleared to resettle the slum families soon after the allotment. Only those families who have the documentary evidence in the slum are eligible for allotment. TNSCB has

constructed 66,014 storeyed tenements at the cost of Rs.98.50 crores in the following metros and urban centres.

Name of the City/Town	No.of tenements
Chennai .....	59590
Erode .....	1882
Kumbakonam .....	206
Trichy .....	927
Madurai .....	604
Salem .....	784
Coimbatore .....	750
Karur .....	256
Sankarankoil .....	48
Thuthukudi .....	160
Thirunelveli .....	532
Nagapattinam .....	117
Thanjavur .....	50
Tiruppur .....	108
<b>Total .....</b>	<b>66014</b>

### Environmental Improvement of Urban Slums

Tamil Nadu Government have a committed policy to have rapid development with utmost concern for environment. They should go hand in hand and not in isolation to one another. Keeping this in view TNSCB has given a new thrust to improve the general environment condition of unhygienic slums. To make the area a good habitat, an environmental improvement programme is implemented by providing physical infrastructure on a "As is where is" basis at an average cost of Rs.2000 per family on the following standards.

1. One bath for 10 families
2. One toilet for 10 families
3. One public fountain for 20 families
4. One street light at 40m interval of road



This programme is being implemented out of the budgetary support provided by the Government every year. This programme aims to provide basic infrastructure to all the needy sections of the urban slum families within a time frame. The slum improvement works have been carried out to 2,27,000 families living in hutments at a cost of Rs.29.34 crores.

The slum improvement works like roads, street lights, public fountains will be provided to benefit 30,000 families living in slums in Chennai and other towns at a cost of Rs.6 crores during 1999-2000.

#### **Rehabilitation and Resettlement of the Slum families living in objectionable areas in Chennai City**

Chennai is the fourth most populous metropolitan city in the country. The vacant sites of water course margin, road margin, along the alignment of MRTS are encroached by the migrant poor. There are 69,000 families living in such objectionable areas. These habitations are devoid of the minimum basic amenities and subjected to the onslaught of annual flood and frequent fire accidents. As the areas occupied by them are to be retrieved to hand over to the land owning department for future development activities, a special programme has been drawn up to resettle and rehabilitate these slum families living in highly objectionable areas near the periphery of the city. This scheme is being developed as massive housing complex, with required common facilities like ration shops, milk booths, dispensary, bus terminal, schools, community hall, police station, fire station, commercial complexes, parks etc. The scheme area is filled up to a depth of 2 Meters to prevent inundation during monsoon. It is proposed to construct 2 storeyed basic shelter units having a plinth area of 150 sq.ft. with adequate infrastructure like roads, street lights, water supply, sewerage arrangements, land scapping and tree planting. Soon after the completion of the project, the slum families living in

objectionable areas in Chennai city will be rehabilitated and resettled in shelter units. TNSCB has spent Rs.8.91 crores for this scheme.

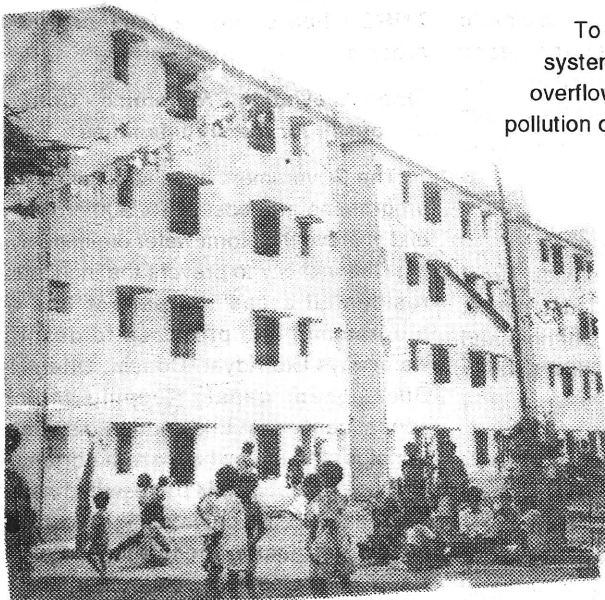
#### **Flood Alleviation Programme - Construction of houses for the slum families**

The Government have sanctioned a massive programme at a cost of Rs.300 crores to desilt and improve the storm water drainage systems in the Chennai city to prevent the inundation of the residential areas. As part of this massive programme, it is proposed to desilt the city waterways like Adyar, Cooum, Otteri Nalla and Buckingham canal. Keeping in mind the consequences on this sudden displacement of the slum families which are hindrances to the desilting operation will be resettled near the city limits. TNSCB has programmed to construct 3000 houses to resettle these families at a cost of Rs.37.50 crores. The required shelters for this Rehabilitation and Resettlement programme will be constructed at Okkium Thuraipakkam under Phase II.

#### **Providing A.C. Sheet Roof to Slum Families**

The benefits of the shelter and other programmes implemented for the slum families could not be extended to all the needy sections within a time frame due to resource constraints. The slum families migrating to Chennai city are not able to construct good shelter on their own and put up temporary huts near their work spots, with cheap building materials susceptible to frequent fire accidents and inclement weather. The Hon'ble Chief Minister has announced that the Government will bear the cost of providing A.C. Sheet roof for the slum families living in Metros of Chennai, Madurai, Trichy, Thirunelveli, Salem and Coimbatore. During the year 1998-99, TNSCB has successfully completed the programme of providing A.C. sheet roof for 7936 families at a cost of Rs.5 crores. The funds required for this programme was provided in the budget.

It is identified that 50,025 slum families are living in unobjectionable areas in Chennai,



Madurai, Coimbatore, Trichy, Tirunelveli and Salem Corporation areas. AC sheet roof to 7,936 families has been implemented last year.

The work of providing fire proof AC sheet roof with side walls and doors to the remaining 42,089 families living in unobjectionable areas will be provided at a cost of Rs.52.60 crores. Such houses will be constructed in the next two years. Under this programme such houses will be constructed for 22,000 families at a cost of Rs.27.50 crores during the current financial year.

#### **Improving the Sewerage Infrastructure in the tenemental areas in Chennai City**

To systematise the sewerage operations and to improve the sanitation in 12 tenemental areas, TNSCB has programmed to connect the sewerage network provided within the existing tenemental schemes to the metro sewer line for ultimate disposal. During 1998-99, the Government have sanctioned Rs.70 lakhs for this programme under part II scheme. TNSCB has

spent Rs.70 lakhs and the works are nearing completion.

To systematise the existing sewerage system in tenemental areas, to avoid the overflow of the sewage and to prevent the pollution of city waterways, it is programmed to spend Rs.75 lakhs under part II scheme to upgrade the existing sewerage infrastructure in 4 slum tenemental areas in Chennai.

#### **Community Development Activities**

A Community Development Wing is functioning in TNSCB and carrying out the following activities.

Employment and Training Programme.

Community planning and participation.

Project on "control of diarrhoeal diseases through water and sanitation with British Airways assistance."

Child labour elimination project.

Health and sanitation programme.

During the year 1999-2000, about 250 persons from the slum areas in Chennai are expected to be trained in trades like Nursing, Data entry operator and Cooking and House keeping assistants, Lab-technicians, Electricians and other technical trades at a cost of Rs.3 lakhs.

#### **Employment and Training Programme**

The main objective of this programme is to upgrade the skills of slum youth through formal and informal courses. These training courses are being organised in co-ordination with Governmental, Non Governmental and private institutions. Under this programme, so far about 10,000 persons have been trained in 40 types of trades. An evaluation of this programme reveals that 70% of the youth who have been trained have found gainful employment. ★

## **Support to Training and Employment Programme for Women (STEP)**

The STEP programme aims to increase the self-reliance and autonomy of women by enhancing their productivity and enabling them to take up income generation activities. It provides training for skill upgradation to poor and assetless women in the traditional sectors viz. agriculture, animal husbandry, dairying, fisheries, handlooms, handicrafts, khadi and village industries, sericulture, social forestry and wasteland development.

### **Objectives**

- ★ To mobilise women in small viable groups and make facilities available through training and access to credit.
- ★ To provide training for skill upgradation.
- ★ To enable groups of women to take up employment-cum-income generation programmes by providing backward and forward linkages.
- ★ To provide support services for further improving training and employment conditions of women.

### **Implementing Agencies**

The scheme is implemented through Public Sector Organisations, District Rural Development

**The STEP  
to  
increase  
the  
self-  
reliance  
of  
women**

Agencies, Federations, Co-operatives and Voluntary Organisations registered under the Societies Registration Act, 1860 or under the Corresponding State Acts. Recipients of financial assistance under STEP are required to be bodies, organisations or agencies working in rural areas, although their headquarters may be located in an urban area.





## Target Group / Beneficiaries

The target group to be covered under the STEP programme includes marginalised, assetless rural women and the urban poor. This includes wage labourers, unpaid daily workers, female headed households, migrant labourers, tribal and other dispossessed groups, with special focus on SC/ST households and families below the poverty line.

## Pattern of Assistance

### a) 100 per cent assistance

- ★ Project staff and administrative cost;
- ★ Training-stipend, training of trainers, skill upgradation reinforcement, training-cum-production centres and raw material for training;
- ★ Support to members for formation of co-operative societies, producers, workers co-operatives leading to formal legal organisations;
- ★ Support services - education, general awareness, health care, sanitation, nutrition/creche facilities for dependent children. Wherever convergence of these services are not available, will be provided as part of the project cost;
- ★ Marketing support - marketing/sales personnel, stock provision and buyers credit, godowns, marketing outlets, quality control and managerial support;

### b) 50 per cent assistance

Construction of individual worksheds and production centres not related with training - 50 per cent of the total cost on this component will be borne by the Government of India and 50 per cent will have to be borne by the implementing agency.

### c) Working capital/raw material requirements

Financial assistance will be provided for working capital and raw material in a phased

manner starting with 100 per cent during the first year, 50 per cent in the second year and 30 per cent in the third year of the project.

In percentage terms funding pattern will be restricted in the following manner of the total project cost

(in percentage)

★ Administration and project staff cost	6
★ Training-technical skill training and orientation of beneficiaries & project functionaries	20
★ Infrastructure including marketing support quality control and managerial support	25
★ Raw material for training including equipment and other material required for training	25
★ Establishment of developmental co-operatives wherever required - mobilisation and strengthening of field level set ups where such support is not available through the existing set up	10
★ Support services	8
★ Overriding cost	6

Under this Programme, upto 90 per cent of the project cost is given by the Government of India. The remaining 10 per cent will have to be borne by the implementing agency from its own sources or through sources other than Government of India. Grants are released to the implementing agencies in two instalments each year. The project should cover at least 500 beneficiaries and the maximum could be 10,000 beneficiaries.

## Eligibility conditions

- ★ The implementing agencies must be registered at least for 3 years.
- ★ Experience/existence in the sector concerned.



- ★ To identify and set up link agencies which would facilitate the implementation of the project through their expertise, resources and experience.
- ★ While selecting a non-governmental organisation as an implementing agency, it would be ensured that the selected organisation has adequate infrastructure and technical expertise in the sector.
- ★ Its financial position should be sound and it should have facilities, resources, experience and administrative capabilities for undertaking the project.
- ★ The project will be for a period of 2-4 years depending upon the nature, kind of activities and the number of beneficiaries to be undertaken.

#### **Procedure for Applying**

The proposal in the prescribed format should be sent through the State Government to

**The Deputy Secretary (STEP)**  
**Deptt. of Women and Child**  
**Development,**  
**1st Floor, Jeevandeep Building,**  
**Sansad Marg, New Delhi - 110 001**  
**Tel. No. 011 - 3362519,**  
**Fax No. 011 - 3348521**

#### **Documents to be enclosed along with the application**

- i) A copy of Registration Certificate
- ii) Article of Association & Constitution of the organisation
- iii) List of members of the Executive Committee with their occupation and background
- iv) Audited statement of accounts i.e. Receipts & Payments, Income & Expenditure and Balance Sheet for the last 2 years
- v) A copy of the latest Annual Report
- vi) Map of the project area
- vii) State Govt. recommendation

## Application Form

### Support to Training and Employment Programme for Women (STEP)

#### Part - I Organisational Details

1. Name & Address of the Organisation with date and year of Registration, Telephone, Telegram & Fax numbers, if any
2. Nature of Organisation (PSU or Vol. Org.)
3. Registration No. & Date
4. Articles of Association & Constitution of the Organisation.
5. Objectives of the Organisation
6. List of members of the Executive Committee with their occupation and background
7. Audited statement & Statement of Receipts & Payment for two years
8. Audited Balance Sheet for last year
9. Copy of the latest Annual Report
10. Major Programmes of the Organisation under implementation at present.

#### Part-II Organisational Capabilities

11. Background of the Org. (Nature of Activities)

12. Experience in income generating Project
13. Experience in the sector
14. Infrastructure available in terms of the Organisational Management.
15. District/Block being covered at present
16. Existing marketing capabilities

#### Part-III Project Proposal

17. Duration of the Project and year of initiation
18. Project Area
19. Sector
20. Development objectives of the Project
21. Proposed physical activities
22. Selection of Beneficiaries
23. No. of Beneficiaries
24. Provision for benchmark survey
25. Details of backward linkage
26. Details of forward linkage
27. Link agencies proposed
28. Other Developmental Programmes in the project area (both Govt. & Voluntary Sector)





## Part-IV Project Cost Structure

### 29. Cost components (year-wise)

#### Non-Recurring

(Rs.in lakhs)

Details	I year	II year	III year	Total
Government of India's share				
Org. share				
State Govt. share				
Others				
Total				

#### Recurring

(Rs. in lakhs)

Details	I year	II year	III year	Total
Government of India's share				
Org. share				
State Govt. share				
Others				
Total				

### 30. Cost sharing details

#### Non-Recurring & Recurring

(Rs. in lakhs)

Details	I year	II year	III year	Total
Government of India's share				
Org. share				
State Govt. share				
Others				
Total				

31. Per Capita Cost

32. Mechanism for mobilisation and organising Women (Organising women producers formal groups including details of awareness generation activity proposed).

33. Provision for Orientation Training of Functionaries

34. Provision for Orientation Training of beneficiaries

35. Provision for support services (like creches, reducing drudgery etc.)

36. Linkages with Adult Education Agencies.

37. Provision for Health Education.

38. Expected results in terms of increase in income vis-a-vis income before commencement of the project.

Date

(Signature)

Place

Organisation's

Rubber Stamp

(To be filled by the State Government in respect of State level or local organisations)

### Recommendations of the State Government

The application from \_\_\_\_\_ (institution/organisation) is forwarded duly recommended to the Department of Women & Child Development, Government of India with the following comments,

i) That a Senior Officer of the \_\_\_\_\_ Department has visited the institution/organisation and a copy of the report is attached/has not visited the institution/organisation.

ii) That the institution/organisation is recognised and/or registered (under Indian Societies Registration Act, 1860).

iii) That the application has been examined and that it is found to be covered under the Scheme.

iv) That the scheme for which the application is being recommended is absolutely essential for

categories of women as envisaged under the Scheme.

v) That the work of the institution/organisation has been reported (wherever such reporting is necessary) as satisfactory during the last two years by the District authorities.

vi) That the institution/organisation is not run for profit to any individual or a body of individuals.

vii) That assistance has/has not been given by the State Government. In the former case, details of grant sanctioned during the last five years for the purpose may be given.

The State Government recommends that the following grants may be given by the Department of Women & Child Development, Ministry of Human Resource Development.

Item	Recurring	Non Recurring
(Rupees in lakhs)		
a)		
b)		
c)		

Signature

Designation - Official Seal

Courtesy : **SCHEMES FOR ASSISTANCE**

- A Hand Book - Department of women and child development,  
Ministry of Human Resource Development, Government of India - 1999.

# **50 CRORES OF RUPEES**

**to  
“Kargil Defence Personnel Relief Fund”  
liberally contributed  
by the people of Tamil Nadu.**

**Tamil Nadu Government expresses  
HEARTFUL THANKS!**



In response to the appeal made by Hon'ble Chief Minister Dr.M.Karunanidhi on 24-6-1999 to contribute liberally to the “Kargil Defence Personnel Relief Fund”, contributions from Government Employees, Teachers, Entrepreneurs, Labourers, Students, Business Community, Doctors, Lawyers, Judiciary, Cinema Industry and Common Public have exceeded **Rs.50 crores.**

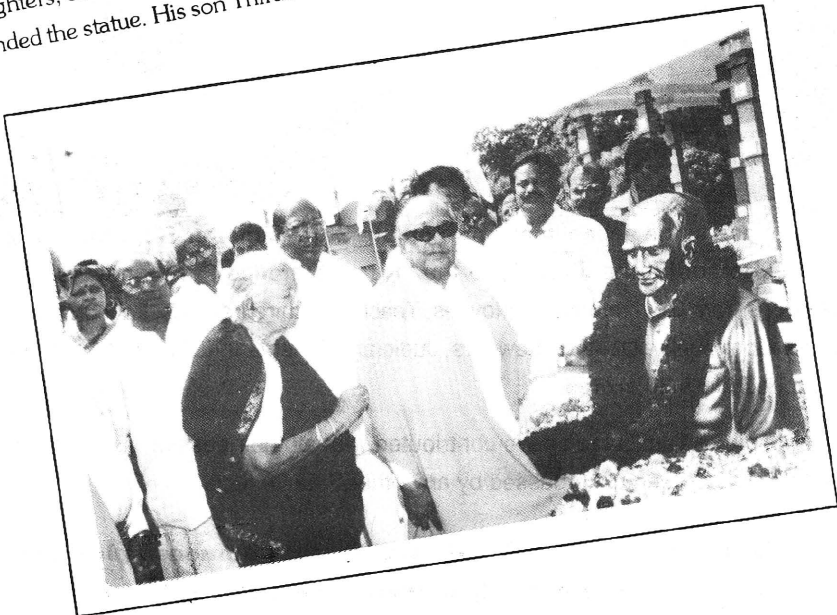
The people of Tamil Nadu have contributed with all their passion and fervour for this cause, which has been unsurpassed by any other State in India.

**The Government of Tamil Nadu derives immense pleasure  
in profusely thanking the people.**





**T**he Hon'ble Chief Minister, Kalaingar announced that July 17 every year would be observed as 'Martyrs' Day to mark the birth anniversary of Perunthalaivar Kamarajar. On 17th July 1999, the Chief Minister, Ministers, The Worshipful Mayor of Chennai Thiru M.K. Stalin paid floral tributes to the portraits of freedom fighters at the Martyrs' Memorial in Chennai and also garlanded the statues of freedom fighters, Sankaralingam and Arya alias Bashyam. Tmt. Bashyam also participated in the function and garlanded the statue. His son Thiru Narasimhan and daughter Tmt. Lakshmi also participated in the function.





# THIRUKKURAL

## The Code of Conduct for the mankind

செவியுணவிற் கேள்வி யுடையா ரவியுணவி  
னான்றாரோ டொப்பர் நிலத்து.

**seviyunavit kelvi yudaiya raviyunavi  
nandraro dopar nilathu.**

'Persons who have nourishing food for their intellect obtained through their ears, though mortals living on earth, are like the Devas who eat the rich sacrificial oblations'.

### COMMENTARY

Persons who carefully listen to the wise words of great scholars will enjoy happiness just like Devas in Swarga are enjoying it.

★ ★ ★

கற்றில னாயினுங் கேட்க வஃதொருவந்  
கொற்கத்தி னூற்றாந் துணை

**katrila nayinun getka vahdhoruvat  
kotkathi nutran dhunai.**

'Though a person is without scholarship, if he obtains knowledge through instruction obtained from great men this will stand him in good stead in moments of weakness as a staff to lean on.'

★ ★ ★

இழுக்க லுடையுழி யூற்றுக்கோ லற்றே  
யொழுக்க முடையார்வாய்ச் சொல்

**izuka ludaiyuzhi yutruko latre  
yozhuka mudaiyarvai sol**

'Words of wisdom proceeding from the lips of those that walk the righteous path will be as useful to man as a staff in the hands of a person who has to walk on a slippery ground'.

★ ★ ★

எனைத்தானு நல்லவை கேட்க வனைத்தானு  
மான்ற பெருமை தரும்.

**enaithanu nallavai ketka vanaithanu  
mandra perumai dharum**

'Let each man learn good things as much as he can. Though what he learns is small, it is bound to yield him great benefit, by increasing his dignity.'

★ ★ ★

பிழைத்துணர்ந்தும் பேதைமை சொல்லா  
ரிழைத்துணர்ந்  
தீண்டிய கேள்வி யவர்.

**pizhai thunarndhum bedhaimai solla  
rizhaithunarn**

**dhindiya kelvi yavar.**

'Those with a clear understanding who acquire learning through instruction will not utter any foolish word even through erroneous appreciation of things.'

### COMMENTARY

A person may not be able to have a correct appreciation of things. Even in such a situation if he is well equipped with learning acquired by listening to lessons given by wise masters he will be very careful not to give vent to his opinion which may be foolish, being erroneous.

★ ★ ★

கேட்பினுங் கேளாத் தகையவே கேள்வியாற்  
றோட்கப் படாத செவி

**ketpinun gela thahaiyave kelviya  
trotka padadha sevi.**

'A person whose ears are not open to the wise teachings of the master is a case where a man has his ears but does not hear'

### COMMENTARY

The function for auditory sensation is to acquire through hearing valuable knowledge about things and persons through instruction to supplement what one acquires through one's own study. A person who is not in the habit of listening to such

wise instruction may have the organ of hearing but it is as good as his being deaf since his ears serve no useful purpose.

★ ★ ★

நுணங்கிய கேள்விய ரல்லார் வணங்கிய  
வாயின ராத லரிது.

nunangiya kelviya rallar vanangiya  
vayina radha laridhu

'Those who do not listen to wise discourse are incapable of polite and modest speech.'

#### COMMENTARY

A Person who often comes in contact with learned men and listens to their wise conversation will be able to appreciate correctly his own intellectual stature and will always adopt a certain amount of humility in addressing others but a person who has not this privilege will not able to appreciate another's point of view on account of immodest self-conceit. He is bound to be overbearing in his conduct as well as in speech and dealing with others.

★ ★ ★

செவியாற் கனையுணரா வாயுணவின் மாக்க  
ளவியினும் வாழினு மென்.

seviyat juvaiyunara vayunavin maka  
laviyinum vazhinu men

'If a person is incapable of appreciating through his ears the pleasures derived from listening he may enjoy the tastes of the tongue, but what matters whether such a person is alive or dead'.

#### COMMENTARY

What ought to be appreciated through hearing is of two kinds: beauty of language and value of the things expressed through language, beauty of language, various aspects of rhetoric through which language is employed to express the various emotions such as love, laughter, mercy, courage, wrath, fear, surprise and peace. These emotional aspects constitute beauty of language and one must be able to appreciate all these aspects of beauty when listening to discourse. The second object of listening is to understand and appreciate the meaning of words which refer to some object of reality. These objects of reality must be clearly understood as they really are and must be discerned to find out what are useful and

what ought to be avoided. Thus equipped with the discriminative knowledge one is expected to adapt himself to such an environment and pursue one's ideals undaunted. Such is the value of learning through instruction.

★ ★ ★

அறிவற்றங் காக்குங் கருவி செறுவார்க்கு  
முள்ளழிக்க லாகா வரண்

arivatran kakun karuvi seruvarku  
mullazhika laha varan

'Reason is an instrument for warding off error. Besides this it is an inner fortress which can never be destroyed enemies'.

#### COMMENTARY

Taking a decision only after rational examination of facts is a necessary condition to avoid mistakes. This is an essential characteristic of a ruling chief. He cannot take risks by hasty conclusions. Therefore the cautious attitude dictated by reason will serve as an inner fortress for him to take refuge in moments of crisis, a fortress which no enemy can approach, much less destroy.

★ ★ ★

சென்ற விடத்தாற் செலவிடா த்தொரீஇ  
நன்றின்பா லுய்ப்ப தறிவு

sendra vidathat selavida thidhori  
nandrinba luipa dharivu

'Reason is that faculty which inhibits both mind and body from their vagaries, enables the person to discriminate between good and evil and directs him towards the good'.

#### COMMENTARY

Just as a chariot horse is carefully controlled by the driver who holds the reins firm, similarly reason is the charioteer which controls the reins of the mind and directs its activity towards the safe and useful path. Hence reason is an important and valuable possession for all living beings. In this connection it is worth remembering Plato's description of reason as a charioteer who controls the horses which are the vagaries of sense pleasures.

★ ★ ★



# 'Chew' Water For Good Health

## Stress and Depression

Stress is the term used for any emotional, physical, social or other factors that require a response or change. Dehydration is also a type of stress and therefore this stress mobilises body reserves to deal with the stress. As a result, some of the body reserves of water are also used up. Thus, dehydration causes stress and stress can cause further dehydration.

Depression is the term used to describe an abnormal emotional state that results in exaggerated feelings of sadness, dejection, worthlessness, emptiness and hopelessness. These feelings are not inappropriate and out of proportion with reality. Inadequate water in the brain can precipitate depression. The brain generates electrical energy from the water present in it. Decreased water in the brain leads to inadequate production of the electrical energy. Thus, the functions of the brain that depend on this type of energy become inefficient. When the normal functions of the brain are affected, depression can set in.

## What are the effects of stress on water regulation

Any type of stress results in secretion of several hormones. These hormones continue to be in higher concentration till the stress is relieved. Since the body is not able to distinguish between different types of stress, dehydration also results in secretion of higher amount of these hormones. Detailed below are some of the hormones secreted in large amounts during any type of stress.

**Endorphins** : These hormones are secreted by a small gland in the brain called pituitary gland. They act on the nervous system to reduce pain. Excessive secretion of endorphins may affect the normal pain reaction in the body.

**Cortisone** : It is a chemical compound produced by liver and can also be produced synthetically. During emergencies, the cortisone begins the process of breakdown of fats and proteins for releasing energy and formation of new proteins and chemical substances for use by the muscles respectively. Thus, cortisone promotes utilisation of some of the body reserves. Prolonged action of cortisone may therefore reduce specific body reserves.

**Prolactin** : Prolactin is a hormone secreted by the pituitary gland. It ensures that a woman continues to produce milk after child-brith even when there is dehydration or stress that can cause dehydrations. Thus, prolactin secretion increases during stress or dehydration in order to maintain the normal water content of the breast milk. Research studies have indicated that long-term increased prolactin secretion can lead to breast tumours in mice. Some medical practitioners threfore believe that the risk of breast tumour may be higher in women who have increased prolactin secretion due to chronic dehydration.

**Vasopressin** : Vasopressin, a hormone secreted by the pituitary gland, is one of the hormones that is involved in the rationing and distribution of water as per the priority of the vital organs. In case of dehydration, the nerve cells produce more vasopressin as compared to other cells of the body.

## What is the effect of alcohol on water regulation?

Alcohol adversely affects water regulation because of two main reasons (a) It suppresses the secretion of vasopressin and (b) It leads to chronic dehydration in some parts of the body.

Alcohol suppresses the secretion of vasopressin from the pituitary gland. Decreased

vasopressin can adversely affect the body's natural compensatory mechanism of water regulation. This adds to the stress and results in excessive secretion of other hormones such as endorphins, which are naturally addictive.

Regular intake of alcohol and caffeine (in coffee, cola drinks etc.) can lead to chronic dehydration in some organs of the body. In such situations, whenever the nerve requires more water, the blood circulation along the nerve increases. Increased blood circulation results in increased release of histamine from the cells lining the nerves.

Persistently, high histamine can cause inflammation - like reaction that may damage the lining of the nerves over a period of time. When the rate of damage exceeds the rate of repair, nerve disorders can set in.

### High Blood Pressure

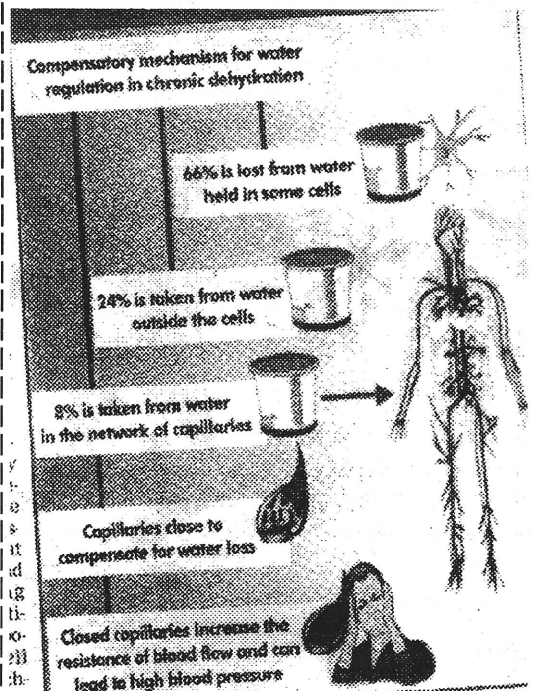
Whenever there is water shortage in some parts of the body, the compensatory mechanisms takes 65 percent of the additional requirement from the water normally present in the cells, 26 percent from the water outside the cells and eight percent from the blood volume.

In order to maintain the normal blood volume, some capillaries close down and pour their water content in the blood. Thus, the extent of activity in the capillaries in different parts of the body ultimately determines the volume of the circulating blood. Closed capillaries increase the resistance of blood flow around them. Increased resistance to blood flow leads to high blood pressure.

It is important to remember that drinking more water alone cannot prevent or control high blood pressure. This is because there are several other important factors that contribute to it. Adequate water intake can delay the onset of high blood pressure or reduce its severity. The role capillaries in high blood pressure is shown in the figure.

### High Blood Cholesterol

High blood cholesterol indicates that the cells of the body have lost the ability to allow adequate water to travel through the cell wall. This is because cholesterol is like natural cement that fills the gaps of the cell walls and prevents water from passing through it. Some medical practitioners opine that excessive deposition of



cholesterol in the cell walls is a natural protective mechanism against dehydration of the cells. This is because during dehydration, the normal quality of water to form an adhesive lining to bind the cell walls together is lost.

Several weeks after increasing the daily water intake, the water content in the cells will become normal. Thus, the flow of water through the cell walls will also become normal. As a result, the need for cholesterol defense mechanism against passage of water across the cell walls will gradually decrease. Hence, the body will produce less cholesterol.

## Obesity

The brain is very sensitive to low energy levels available for its functions. Low energy levels cause thirst and hunger sensations. Normally, hormones are necessary to mobilise energy from the stored fat. Since this process takes some time and the brain requires energy urgently, it depends on the blood sugar for the energy. It also uses water to produce electricity and transport its messages to various parts of the body. Thus, the sensation of thirst and hunger are felt together to indicate the brain's needs for more instant energy.

Drinking adequate water before the meal will reduce the intensity of the thirst and therefore help prevent overeating. In case the water intake is inadequate, you are likely to feel more "hungry" and eat larger portions of food at more frequent intervals in order to supply necessary sugar to the brain.

It is important to note that only 20 percent of the energy from the food reaches the brain. The energy from food that is not used by any other parts of the body is stored. On the other hand, if the brain derives more energy from water, the unused water is excreted as urine. Thus, the risk of weight gain is greatly reduced.

## Asthma and Allergies

Asthma is a disease of the respiratory system that causes repeated attacks of difficulty in breathing, wheezing because of constriction of the air passages, coughing and thick secretions of the air passages. It is often due to allergy.

People with asthma have increased histamine in the lung, which results in contraction of the air passages. Since lungs help in the removal of water, contraction of the air passage will lead to decreased loss of water. This is also one of the defense mechanisms of the water in case of dehydration.

Histamine also plays an important role in the body's natural defense mechanism against disease-causing agents. When the histamine-level increases, the defense mechanism becomes exaggerated. Some studies on animals have indicated that increased water intake reduces histamine production after one to four weeks of appropriate water regulations. They, therefore, are less prone for allergic reactions. This is why some medical practitioners opine that drinking adequate water may help control asthma.

It is important to remember that drinking excess water will not control asthma immediately. Drinking about 10 glasses of water per day for a few weeks can lead to adequate water in all cells of the body. This is when the healing powers of water can be experienced.

## What is the normal daily requirement of water?

It is very difficult to quantify the exact amount of water each person requires to maintain normal functioning of all the organs of the body. This is because the quantity of water required for the body functions depend on several factors such as age, climate, season, physical activity, type of food consumed, amount of condiments and spices used for cooking, the water content in the food, salt intake etc.

Normally, our daily diet provides about two-third of the body's requirement of water. Some health practitioners suggest that you drink about eight to ten glasses of water every day to meet the remaining one-third of the body's requirement. You also need to drink a lot of water when you are tired or sweating profusely.

It is also important to learn when not to drink water. It is desirable that you avoid drinking water while eating food, as it will adversely affect chewing of the food and secretion of the saliva. The water leaves the stomach within five



to ten minutes of drinking it, and therefore some of the food is also likely to leave the stomach along with the water.

Thus, digestion of the food is likely to be adversely affected. Water also dilutes the digestive juices in the stomach, thus leading to indigestion. It is desirable that you drink water on empty stomach or three hours after food or one to one-and-a-half hours before food.

One of the ways to ensure that you are drinking adequate water is to observe the colour of your urine. If it is almost white, it means that all parts of your body are hydrated. Yellowish tint in the urine indicates that the kidneys have to work harder to remove the waste products because of inadequate water in the blood.

#### **How should you drink water?**

Most people tend to drink water in large gulps. Nature cure recommends that you need to "eat liquids and drink solids". This means that you need to take water sip by sip, and "chew" it in the mouth in order to mix it with the saliva. Avoid regular use of straws for drinking water or fluids.

#### **What is the best type of water for drinking?**

Nature Cure recommends drinking pure water to which no minerals are added. This is because the minerals may either be rejected or deposited in some parts of the body, thus causing health problems.

However, water from natural sources may contain minerals that can be beneficial to the body in specific conditions due to their reaction and affinity towards the mineral content in the food.

#### **Does temperature of the drinking water affect health?**

Yes, the temperature of the water you drink is also important for maintaining normal health.

Cold water from natural sources (which is not cooled in a refrigerator or with ice) is fit for drinking because of six main reasons.

#### **Cold water**

1. Lowers of body temperature.
2. Dilutes the blood to the required consistency.
3. Promotes excretion of poisons from the skin in the form of "evaporation".
4. Stimulates the normal functions of the kidneys and therefore increases the rate of removal of "poisons" from the body through the urine.
5. Increases movements of the intestines, thus facilitating formation and passing of soft stools.

Sipping hot water has several benefits too. For example, as soon as you drink hot water, there is instant stimulation of the inner lining of the stomach and contraction of its blood vessels. As a result, there is less blood circulation in the lining of the stomach. This leads to reduced activity of the glands that secrete acids in the stomach.

Thus, you are less likely to suffer from increased acid secretions in the stomach. Hot water cleans the stomach, relieves heartburn, belching, flatulence, acute indigestion, vomiting and cramps in the abdomen.

Drinking hot water is not recommended for those who suffer from ulcers in the stomach. It is important to remember that hot water should be sipped and not gulped.

**Health Update, Society for Health  
Education and Learning Packages (H<sub>2</sub>ELP),  
New Delhi**



# ART AND ARCHITECTURE IN KUMARI CONTINENT

"The history of India is still concealed in the depths of the soil waiting for the archaeologists who will bring new data to light to reconstruct the history of ancient India" remarked Maulana Abulkalam Azad while he was the Education Minister of India. But the history of South India particularly of Tamil Nadu is hidden not only under the soil but also under the sea.

The Lemurian theory which holds the view that there was a large mass of land to the south of Kanniyakumari carries the history of South India to very ancient times. Most of the visitors to Kanniyakumari only know of the confluence of the three oceans, the temple of Devi Kanniyakumari, Gandhi Smarak Mandir and Vivekananda Rock Memorial. How many would know that beneath the Indian ocean lie the remnants of a vibrant and hoary civilization which were submerged by periodical cataclysmic landslips during the remote past? It is interesting to know that the topography of ancient India was different from that it is today. Peninsular India extended beyond Kanniyakumari forming a sprawling continent touching Africa in the West, Australia in the East and Antartica in the South and occupying a large portion of the Indian and pacific oceans. It was known as Kumari Mandalam, Kumari Nadu and Kumari continent.

From Cilappathikaram one of the twin epics in Tamil literature, we learn that the river Pahruli and the mountain range Kumarikodu disappeared in a great deluge. "Pahruli attudan panmalai adukkathu

Kumarikodum kodum kadal kolla" are the Words Cilappathikaram. The land South of Sri Lanka according to Mahavamsa covered a distance of 700 Kaathams or 4900 sq. miles southwards. The great deluge is also mentioned in the Holy Bible. The continental drift theory of Alfred Wegener, the theory of plate tectonics and the underwater archaeology conducted in recent days confirm these literary accounts. So the facts culled from these literary works cannot be brushed aside as mere imagination and exaggeration. The archaeological findings found at Alagankulam near Ramanathapuram and the oceanic explorations held in Poompuhar confirm the detailed description of the places mentioned in ancient literature. The former Director of Archaeology in Tamil Nadu Government Natana Kasinathan who participated in the oceanic explorations conducted in Poompuhar port remarked. "The artefacts strangely confirm that the city Poompuhar was swallowed by the sea and a number of structures of the lost city are still under the sea. So much so if any excavation in the land and exploration in the sea around Kanniyakumari are undertaken the truth about the Kumari continent will come to light.

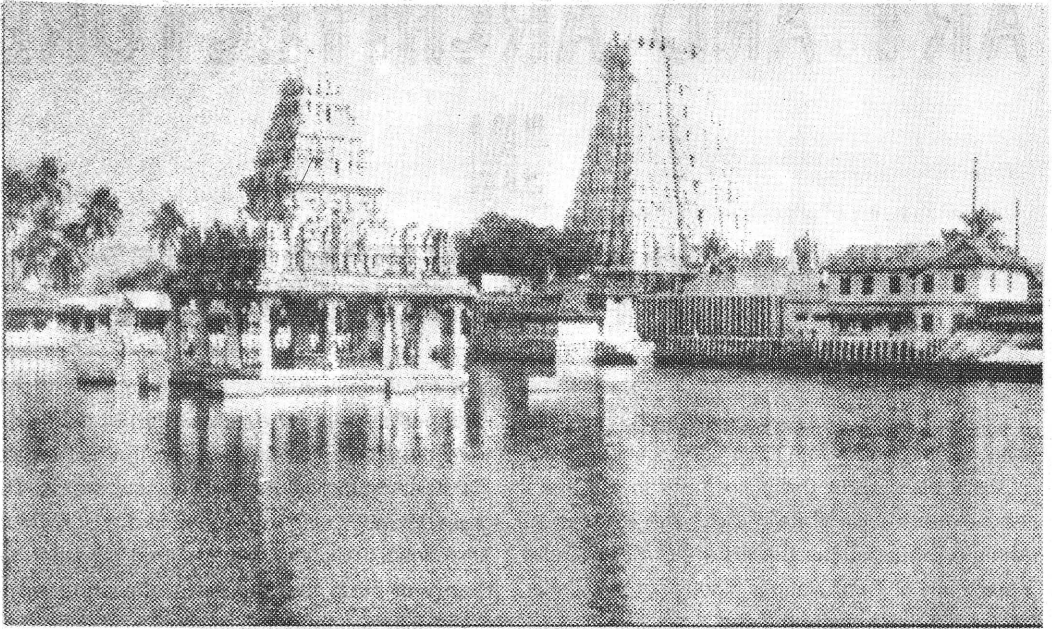
In his book "Pre-Aryan Tamil Culture" P.T. Srinivasa Iyengar writes: "There are three lines of

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- Dr.S. PADMANABHAN,

*General Secretary,*

*Kanniyakumari Historical and Cultural  
Research Centre, Nagercoil.*



evidence which can be utilised for constructing a picture of the life of the Ancient Tamils. The first source of information regarding ancient South Indian life is the catalogue of pre-historic antiquities of artefacts, the relics and the graveyards belonging to the Neolithic and early iron ages. The second line of evidence is the pre-Aryan nouns and verbs, for they infer what objects they handle or had observed and what actions they were able to perform. The third line of evidence is the early ancient literary works. The existing specimens of literature, no doubt belong to times later than the times of other two evidences. But, since the life of the people mirrored in their literature is an unbroken continuation of that of the earlier epoch and can be used to confirm the conclusions reached by the other two lines of evidences".

This paper is based mainly on the ancient literary works Aindiram and Tholkappiyam which were released in the first and second Tamil Sanghams respectively held in the lost continent of Kumari. So it can be assumed that the way of life of the people mirrored in Aindiram and

Tholkappiyam is applicable to the people who lived in the lost continent. So the art and architecture found in Aindiram and Tholkappiyam belonged to the people of Kumari continent.

The western scholars call the Kumari continent engulfed by the sea as Lemuria. The word Lemur in Latin means an animal between monkey and man known as ape. This type of animal lives even today in the island of Madagascar near the eastern coast of Africa. So the continent of Lemuria means the land of apes. But Kumari continent which was swallowed by high seas is a different one. It was a seat of an ancient and flourishing civilization with its own culture and traditions. Kumari continent was the home - land of the ancient Tamils. The Tamils were the pioneers in developing their language through Academies known as Sanghams. They divided their language into three divisions namely Iyal (literature) Isai (music) and Natakam (dance & drama). So Tamil is known as Muthamil (Tri - Tamil). We never find such classification in any language of the world. There is no Tri - English. There is no Tri - Sanskrit. Tamils divided their land into 5 divisions

namely Kurinchi (hilly regions) Mullai (forest tracts) Marutham (Irrigated areas) Neithal (littoral regions) and Paalai (desert tracts) The Tamils were the first to enumerate the scientific theory that the universe is composed of the five elements known as Panchaboothas namely earth, fire, water, air and space. Thus the Tri -Tamil language, the five categories of land and the five-element theory were the inventions of the Tamils who lived in Kumari continent. So the seat of highly cultured and civilised Tamils can never be described as Lemuria, the land of apes. So it is pertinent to call the ancient land as Kumari continent and not Lemuria as mentioned by the western scholars.

### **Agathiyam and Aindiram**

The forefathers of the Tamils lived and thrived on the vast land known as Kumari continent swallowed by sea. Their two Sanghams were held there. In the first Sangham, Agathiyam written by Agathiyar was the authoritative grammar of language and literature while Aindiram, written by Mayan was considered as an authoritative grammar on art and architecture. Though Agathiyam was famous during the first Sangham period it is regrettable to note that only a few fragments are available now. But it is a matter of pleasure and pride to know that the full text of Aindiram which was written by Mayan is available now. Aindiram was published in a book form by the Directorate of Technical Education of Tamil Nadu Government in the year 1986. The text of Aindiram was found from the enormous accumulation of palm leaf records found in the Saraswathi Mahal Library, Thanjavur and also from the oral renderings of one Tamil scholar Veerabadran. We can safely presume here that the oral instructions given by Mayan, based on his experiences and spiritual insight, must have been passed on from generation to generation and finally found a place in palmyra leaves.

### **Aindiram of Mayan**

According to Pannirupadalam and Purapporulvenbamalai Agathiyar written by Agathiyar was the source book of Tholkaappiyam. But in the prefatory verse of Tholkaappiyam it is stated that Aindiram written by Mayan was the source book of Tholkaappiyam. The verse reads thus : "Aindram Niraintha Tholkaappiyar" which means that Tholkaappiyar, the author of Tholkaappiyam, was well-versed in Aindiram. The commentators of Tholkaappiyam Ilampooranar, Nachinarkiniar and Senavaraiyar also confirm that Aindiram was the source book of Tholkaappiyam. Dr.K.P. Aravanan, the Vice-Chancellor of Manonmaniam Sundaranar University wrote a book on Aindiram in the year 1974. He concluded the book by saying that more research work is required for identifying Aindiram and its author.

Dr.V. Ganapathi Sthapathi, the doyen of Indian Art and Architecture who made a thorough research in this field introduced Mayan as a human being and not a mythical being as described in the puranas and epics. Mayan was also identified as the author of not only Aindiram, a grammatical work of Tamil language and literature but also Vaastu Sastra a treatise on Indian art and architecture and Surya Siddhanta, the science of Astronomy. He also pointed out the similarities between Mayan of Indian and Maayan of Mexico. So Dr. Sthapathi aptly named the Indian traditional art and architecture as Mayonic Science and Technology.

Tholkaappiyam, a grammatical work which was released in the second Sangham throws light on the social history of the ancient Tamils who lived not only during the second Sangham period but also in the first Sangham period. No political history could be gleaned out of it as it is a grammatical work. Tholkaappiyam itself bears witness to the existence of not only previous literary and grammatical works but also the grammar of art and architecture. Tholkaappiyar



has cautiously acknowledge them in 260 places by mentioning "they say", the learned thus say", "the grammarians say". These references in Tholkaappiyam show that there existed a certain amount of literature in Tamil before its composition. The grammar Tholkaappiyam is a master - piece and could have been composed only when the language had reached its pristine form.

### Aindiram and Tholkaappiyam

As already mentioned Tholkaappiyam was released in the second Sangham. Since Tholkaappiyam of the second Sangham period quoted "Aindiram" as the source book it should have been written in the first Sangham period. It may appear, at the outset, that Aindiram is the Tamil version of the Aindira Vyakarana in Sanskrit. Not so at all. Absolutely not so. This is an original work in Tamil as revealed by its author Mayan in the concluding lines of Aindiram "Ayal mozhi saara Tamil oli unarvaal Maya Tamil silpi aliththan Makizhnthe" are the words of Mayan. "Without any foreign element and with the innate Tamil spirit the Tamil architect Mayan contributes his work with joy" (Aindiram verse 1892)

Tholkaappiyar, the author of Tholkaappiyam borrowed the concept of Tri - Tamil, the five classifications of land and the scientific theory of five elements from Aindiram of Mayan. The most interesting aspect of this classification of land is that these are not mere geographical divisions but more to characterise the civilizational growth of the humanity. It reveals the socio - cultural character of the ancient Tamils. The classification of land was also called Thinais in Tamil. These Thinais namely Kurinchi, Mullai, Marutham, Neithal and Paalai were noted for three major divisions each, known as Muthal Porul, Karupporul and Uripporul. Muthal porul is said to be Time and Space. Karupporul denotes the special features of the five kinds of regions and Uripporul means the moods in love characteristic of the five tracts of land. According to Mayan all the objects of the

universe are space turned spacial forms. Time and space are equated in the Vaastu Sastra discovered by Mayan. According to Mayan Time is the creator, sustainer and destroyer "Kaalame Aakkum, Kaalame Kaakkum, Kaalame thudaikkum" are the words of Mayan. (Aindiram verse 283) Tholkaappiyar borrowed the theory of Space and Time from Mayan. Tholkaappiyar says Muthal porul indicates Space and Time. "Muthalena paduvathu Nilam pozhuthu irandin iyalbena Mozhiba" (Porul 1:4) are the words of Tholkaappiyar. Hence it is very clear that Vaastu Silpa tradition was in existence even in the continent of Kumari.

Aindiram authored by Mayan is a multidimensional treatise on Energy and Matter,



Space and Time, Order and Beauty. Absolute time creates life said Mayan in his Aindiram. He added that "Mathematics has its roots in the Time unit and Architecture is the zenithal achievement of mathematics". (Aindiram verse 702-708). Aindiram is an embodiment of the subtle and penetrating theories of five aspects (Aintiram) namely, Moolam (prime existence), Kaalam (Time), Seelam (Rhythm), Kolam (Form) and Gnam (Earth). Mayan views the entire cosmic phenomenon in terms of these five aspects. (Aindiram verse 866) We find that the number "5" is closely associated with the ancient Tamils in the continent of Kumari. The land was divided by them into five namely Mullai (pastoral) Kurinji (mountainous). Marutham (agricultural), Neithal (maritime) and Paalai (desert). This is the basis of Vaasthu Sastra of Indian origin. It will be interesting to note the following pentadic schemes as we find ingrained in our tradition namely panchaboothas (five basic elements) panchavarna (five basic colours). Panchakshara (five vowels), Panchaloka (five basic metals) and Panchendrias or Aimbulangal (five sense organs). This pentadic scheme of things in Nature is an element of Mayonic Science and Technology. Tholkaappiyar borrowed the fundamental theory of Vaastu Sastra from Aindiram.

From Aindiram it is learnt that the work was released in the first Tamil Sangham in the presence of the great Tamil poets during the period of the King Nilan Tharu Thiruvir Pandyan. Mayan is said to have authored several books on art and architecture. They were Oviya Chennool, Sirpa Chennool, Kattada Chennool, Manainila Chennool, Perunada Chennool. Eazhisai Chennool and Tamil Iyal Chennool. The book "Oviya Chennol" is also referred to in the Tamil epic Manimekalai.

### Atom

Mayan explained the nature of atom and also the process of knowing the manifested parts of atom and its ultimate purpose. He called his work

Aindiram as Anukalai nool (a book of Atom). In Mayan's heart exists the beautiful form Lord Siva in dancing pose. He created the image of Nataraja, the dancing form of Siva. He called the Lord as Aada vallan (master of dance). The iconographic study of Nataraja is a fascinating one and it explains the importance of Atom in cosmos. "The image of Nataraja is a synthesis of Science, Religion and Art" says the great interpreter of Oriental Art Dr. Ananda Coomaraswami. According to the modern scientists an atom is nothing but a microscopic particle in perpetual motion within a circle. If there is such a motion, there must be a mover. If the mover is immanent, he must be in motion too. In the figure of Nataraja both the mover and the moved are depicted in life-like shape. Here Science is personified in art combined with Religion. The conception of Nataraja is thus a fine example of the artistic genius of Mayan.

### Panchaboothas

According to Tamil tradition, the world is made of the five elements in nature namely earth, fire, water, air and space, Aindiram of the first Sangham period and Tholkaappiyam of the second Sangham period and also a few literary works of the third Sangham period including Madurai Kanchi and Thirukkural confirm the theory of Panchaboothas. In the South there are Panchaboothasthalas (five abodes of Siva) corresponding to the five elements. Lord Siva is worshiped as earth at Kancheepuram, as water at Jumbheswaram, as fire at Tiruvannamalai, as air at Kalahasthi and as space at Chidambaram.

Lord Siva in the form of Nataraja and Dakshinamurthi was worshipped by the people of the lost continent of Kumari which was swallowed by the sea. That is why the image of Nataraja and Dakshinamurthy are always placed facing south. The very word Thenpulathaar (people of the southern land) which appears in several ancient Tamil works denotes the ancestors of the Tamils

who lived in the lost continent of Kumari. Mayan in his work Aindiram glorified the land, language, literature, art and architecture of his domicile as Thenpulam, Thennilam, Thenmozhi, Thenchol, Thenkalai, etc. in several places. (Aindiram Verse. 703) He called the people of Kumari continent as "Then thisai" then pula cheeror "the noble men of the southern land". (Andiram; verse. 699) "Thennadudaiya Sivane potri Ennattavarukkum Iraiva potri" says Manickavasagar which means "Lord Siva is of the South but he is the God of all nations" Here the South denotes not the present day South India but the southern land swallowed by the sea.

Tholkappiyam says that "Arivin Muthalvan Kandathu Muthal Noolaakum" (Porul:640). Here the words Arivin Muthalvan denote God of wisdom. Though different Gods were assigned and worshipped in the specific classification of the land

in Kumari Continent, the people irrespective of the classification used to worship the God of dance named Nataraja and the God of wisdom named Dakshinamurthy. There are people who hold the view that Arivin Muthalvan denotes Mayan and Mudal Nool denotes his work Aindiram. Subsequently South, the direction of Mayan became the direction of Yaman, the God of death.

### Mayamatha

Mayamatha, another work written by Mayan in Sanskrit is an important and comprehensive treatise on art and architecture. It is copiously quoted as an authority by subsequent writers on architecture and appears to be the oldest among the extant treatise on the subject in Sanskrit. The major portion of the manuscript of the work was traced out from the Maharaja's palace Library at Thiruvananthapuram along with its Tamil edition. The manuscript in Sanskrit was published in a



book form by the Government of Travancore in the year 1919 through its Department of Publication. The manuscript in Tamil is not yet published and its whereabouts are not known at present. It is not clearly known whether the original Mayamatha was in Tamil or Sanskrit. It is a matter for further research. Mayamatha begins with the invocation to Lord Siva and ends with the installation and traits of Sivalinga. It further deals with the rules and regulations and a detailed guidelines of temple architecture, town planning, construction of forts and palaces, etc. examination of land and sand, selection of stones and other materials, making idols and structures, placement of various deities, measurement and method of installation, erection of Gopuram, pillars and mandapams including the modes of rituals and chanting of mantras. Dr. Ganapathi Sthapati said that the iconographical description on the various dance poses of Siva which were available in the first edition of Mayamatha are not found in the second edition. The missing part containing only the different poses of Nataraja is available with Dr. Ganapathi Sthapati who has copied from the first edition of Mayamatha taken from Connemara Library, Chennai.

Followed by Mayan, the first architect, innumerable authors appeared on the scene. Maanasaara, the book which deals with the art of buildings refer to architectural experts. These architects had gathered their experiences and their works of nature during centuries, made it into books of grammar for art and architecture. It is astonishing to note that majority of the books on this subject are written in Sanskrit based on South Indian art and architecture. Various Tamil words are found in the Art glossary and all the information referred to in the Sanskrit works regarding rules and regulations, cultural aspects, sculptural traditions, etc. have the Tamil spirit behind it. Even though these books are in Sanskrit the architects are only Dravidans particularly Tamils. We find the use of Sanskrit as the

language of official documents and as a language of prestige in ancient days. It is very clear that the various Sanskrit works in circulation were in existence in the Tamil language through traditions. Some of them are still in palmyrah leaves. The Sanskrit book Mayamatha written by Mayan was referred to as Maya nool and Mayaneri in ancient times. The rules and regulations prescribed by Mayan in the field of art and architecture are still green among the artisans of the south.

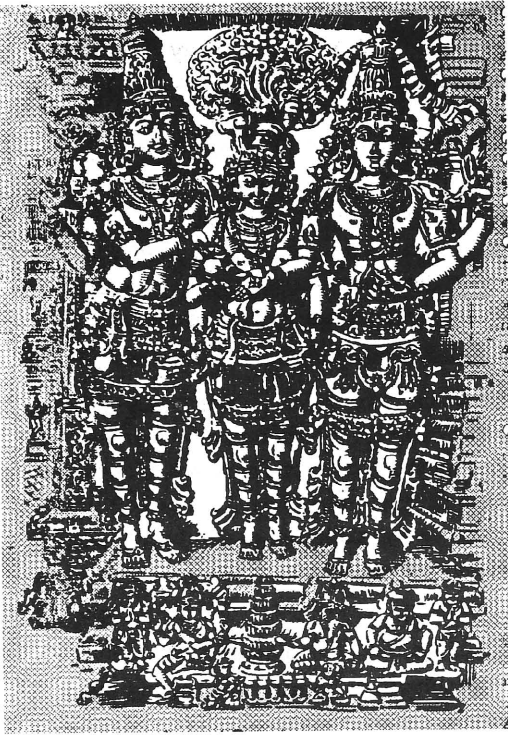
From Aindiram which was released in the first sangham and Tholkaappiyam which was released in the second Sangham one can surmise the glorious traditions of art and architecture in the lost continent of Kumari. The Tamils in Kumari continent were skilled in art and architecture according to these literary works.

The fine arts of music, dance and drama were well developed in the continent of Kumari, since Tholkaappiyam, a literary work of the second Sangham period speaks of different types of drama and music among other things peculiar to each of the five regions namely Kurinchi, Mullai, Marutham, Neithal and Paalai. (Porul - 20) It makes mention of the existence of male and female singers and dancers and also instrumentalists (Porul - 88). It also makes mention of the difference in the usage of words by the masses, the educated and the dramatists (Porul - 56).

### Artisans

The Tamils in Kumari continent had made stone, metal and wooden images and also erected granite forts and fortresses, mansions and palaces with lofty towers. Tholkaappiyar clearly states that warriors were respected by the people during his days. In memory of the brave warriors hero - stones known as Nadukal were erected and worshipped. Tholkappiyam gives a detailed account on the erection of these hero - stones stage by stage namely kaadchi (selection of stone)





kaalkol (to bring the stone in a proper place) Neerpadai (cleaning the stone) Nadukal (engraving the figure of the warrior) and perumpadai Vaalthal (depiction of the brave deeds of the warrior) Tholkaappiyam also refers to carved stone pillars (Porul 65) and images of God (Porul 30). The erection of the carved stones clearly shows the development of art in stone (Porul - 63). This also reveals the artistic talents of the stone sculptors in Kumari continent.

### Blacksmiths

It is evident that the extraction of the iron ore from the soil was in existence in Kumari continent and it was used for manufacturing implements and weapons of war. In Tholkaappiyam bow and arrow, spear and sword are referred to in various places. If the Tamils in Kumari Continent had not extracted iron ore these iron weapons would not have been in existence. So it is very clear that blacksmiths

were in plenty in Kumari continent. Recently a well-known Archaeologist Iravatham Mahadevan discovered one Tamil Brahmi inscription in Egypt which reveals an astonishing fact that there was a blacksmithy factory in Egypt. It also mentions the name of two Tamil artisans named Kanan (Kannan) and Chathan (Chaththan). The chisels manufactured by them in their factory might have been used for carving purposes to erect the well-known pyramids. It is also interesting to note here that in the ancient site of Adichanallur near Tirunelveli implements of iron and ornaments of gold were found in the graveyards.

### Goldsmiths

Just as iron weapons and instruments were manufactured by the ancient Tamils gold was also used by them for making ornaments. The words "Kathonru Kalaitthal", "Ulani" (Porul : 258) and "anivithavai thiruthal" (Porul : 256) appeared in Tholkaappiyam, specifically refers to the use of gold ornaments by the ladies in the continent of Kumari. So it is evident that goldsmiths also did their skilled jobs in Kumari continent.

### Carpenters

As Tholkaappiyar refers to wooden works such as doors, chariots, drums and others it is clear that several carpenters lived in Kumari continent. Thus the artisans in Kumari continent produced agricultural implements, weapons for war, tools for weaving, boats for fishing, ships for maritime trade and houses for dwelling.

### Architecture

The yard-stick of a nation's civilization is the type of buildings constructed by the people. The mode and style of construction of the buildings reveal the engineering knowledge and architectural technique of the people of the country. The people in Kumari continent appeared to have been skilled in construction works. They had built big cities, mansions and palaces. They erected forts and

fortresses around the city. The words ``Aar Eyiil'' (Porul 68) reveals the artistic excellence of the forts and the talents of the artisans of the period. So it is evident that the architects in Kumari continent were experts in constructing buildings, forts and fortresses.

### **Temple - Architecture**

In Tholkaappiyam reference is found regarding temple but not temple architecture. As Tholkaappiyam is a science of language and literature absence of such references cannot be taken for granted to mean that temples did not exist during his period. Following the period of Tholkaappiyam came the third Sangham period. The Sangham and post - sangham literature beginning from 2nd century BC speaks of temples as Kottam, Nagaram, Mantram, Koil, Palli and Peedikai dedicated to different deities. Evidently these various names indicate different plans and styles of temple architecture in ancient period.

### **Ramayana and Kumari Continent**

Dr. M.M. Rao, a research scholar in the History Department of Osmania University in his research paper on ``Ramayana and Kumari continent'' found out several astonishing facts confirming the theory of the lost continent of Kumari.

According to him Asuras lived in the vast land which included Africa, Australia, Antartica and a portion of the present America. It is interesting to note that the language of the aborigines of Africa, Australia, Peru and Mexico resemble that of the Tamils. According to ancient Indian literature the figure of Asuras was gigantic. Dr. Rao showed the persons with an abnormal height of 18 feet in Suku clan of African continent who resemble that of Asuras in appearance described in ancient literature. According to Rao, Kumbhakarna lived in Antartica. The very fact that the people had 6 months night and 6 months day in Antartica is a clear indication of the fact that Kumbhakarna followed the same pattern as sleep for 6 months and kept awake for the other 6 months.

We find image worship and temple architecture in a developed form during the period of Ramayana. The Sanctum dedicated to several deities in the hermitage of Agasthya are described in ``Aranyakanda of Valmiki Ramayana''. From Sundarakanda it is learnt that there was a temple of Goddess at Nikumbala in Sri Lanka. In Sarge 43 Anjeneya uprooted a pillar of the sanctum sacred to the guardian deity of Sri Lanka and demolished the lofty edifice with fire. The Tamils of Sri Lanka used to travel in the mid-sea and throw coconut assuming it as a token offer to the temple under the sea.

Literary works of North and South paid glowing tributes to Mayan, the pioneer in art and architecture. Like Agathiyar, the pioneer in Tamil grammar and literature Mayan has been referred to as a founder of art and architecture in the first epic Ramayana of Valmiki. From the Ramayana of Kamban it is learnt that Mayan constructed the City Amaravathi for Indra and Alakapuri for Kubera. After destruction of the capital City of Ravana by Hanuman it was reconstructed by Mayan, the father - in law of Ravana. In the Mahabharata, Mayan is said to have erected for Pandavas the Maya-Sabha in Indraprastha. The artistic tradition of Mayan is praised by the author of Cilapathikaram. The influence of Mayan tradition in North India is mentioned in Cilapathikaram. Manimekalai points out that the Buddha peetha at Kaverippoompattinam, the Sakkaravaalakottam and Kanthir paavai were erected by Mayan. Manimekalai also talks about the crystal hall in Chakravalakottam built by Mayan according to the Silpa Sastras. The palinkarai mandapa (crystal hall) is so arranged that a person standing outside can see the happenings inside but cannot hear what is spoken within. The walls are made of transparent materials like our modern day glass house but sound proof. Even thousands of years ago light and sound technology was known to the architects as derived from the tradition of Mayan.

## Australia

Dr. Rao added that the name Australia is derived from the word Austra and Aalaya which denote the store - house of weapons belonged to the Asura kings. Ancient literature also speaks of the great advancement in the art of warfare as well as the condition of transport founded by Mayan. Ravana used a weapon designed and made by Mayan bearing his name in the battle with Rama. It was known as Mayan padaikalam (weapon designed by Mayan). In Pavishya purana Mayan destroyed a Yantra namely Brahmi which was installed on earth to prevent the movements of the inhabitants from one continent to another. In Ramayana there occurs a reference to the Pushpak Vimana, the flying vehicle decorated with flowers and was operated by Ravana. Yet another worthy work of Mayan was the Peacock shaped Vimana of air borne vehicle which was a fore-runner to the modern helicopter. Mention of it is made in the Jeevaka Chinthamani how the king minutely explained to his beloved the intricacies of the devices. Perhaps Mayan referred to in various works of different periods, may not be one and the same person as in the case of Agathiyar who appeared in different periods. We have references to Mayan tradition and also the extraordinary skill he had in building architecture, sculpture, mode of transport and equipments of warfare in ancient literature. In so far as South India and Tamil Nadu in particular is concerned a tradition has firmly being built primarily for religious architecture which after all was the chief subsidizing agency for art throughout its long and glorious. history. No doubt Mayan was the founder of their age old tradition.

Mayan, the pioneer in art and architecture lived in the lost continent of Kumari and the influence of Mayan had spread all over the world. Father Hiras in his Proto - Indo Mediteranean Culture, has postulated the theory that the original home of man is to be found in the lost continent of Kumari. He has further ventured to suggest that culture has

spread to all the corners of the world only from this lost continent. He has also adduced many anthropological factors and archaeological evidences to support his theory.

Mayan, who participated in the first Tamil Sangham, which was held in the last continent of Kumari is said to have lived on Mahendra mountain which is now in the present Kanniyakumari District. According to Valmiki Ramayana Anjeneya jumped over to Lanka from the top of the Mahendra mountain. Kamban calls this Mahendran mountain as Mayendram. In Kerala the names Negendran, Narendran, Devendran, Ramendran, Balendran, Surendran, Suchindran and Mannendran are very common. Similarly Mayan became Mayendran. The nomenclature of the word Mayendra is a confirmatory piece of evidence that Mayan lived in the Mahendra mountain. It is also interesting to note here that there is a place named **Mayan parambu** nearly 5 miles from the peak of Mahendragiri, and the Naadu Kaani pass divides Mahendragiri and Mayan parambu.

From the age old Tamil literature one can find the glorious heritage of the Tamils in Kumari continent in the field of art and architecture. It is regettable to note here that in the southern end of India no sincere attempt has been made so far in the field of archaeological excavation and underwater exploration. The history of South India can be woderfully recovered if any excavation in the land and scientific research under the sea around Kanniyakumari are undertaken. Undoubtedly the archaeological treasure lying buried in the area will throw light on thousands and thousands of years of human history. It is the prime duty of the State and Central Governments with the help of UNESCO to carry out the underwater archaeological exploration in the Indian Ocean and bring out the hidden history of the Kumari continent.

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