

United Kerala's First Government A Form of Struggle

V.S. Achuthanandan
Chief Minister

The golden jubilee of the first cabinet of the united Kerala is celebrated in continuation of the golden jubilee celebration of the united Kerala. This is the land which Swami Vivekananda attributed as a lunatic asylum in the first half of the previous century. The mutual animosity of caste, religion and sectarianism and the related bad rituals prompted Vivekananda to attribute the land of Malayali in such a way.

It was the Renaissance movements and the subsequent leftist activities, which lifted up Kerala from such a condition to present day state. The Left fraction in Congress, the Farmers' Movement organised in 1936 as part of it, Communist Party formed in 1937, Agricultural Labourers' Union formed in 1940 – legendary agitations against feudalism and kingship and the culture of both of them, the agitations of industrial labourers since the beginning of the 40s, the supreme sacrificial battles against imperialism and the rule of Divan – as a result of all these Kerala shook off the state of being addressed as a lunatic asylum and leaped into prosperity. The sum total of that progress is the Communist Government that came into power in 1957. In 1959 communal, religious and retrogressive forces joined hands with Congress in the liberation agitation to coup that Government. The feudal power and right fraction conducted the liberation agitation with the aim of leading Kerala back to the state similar to a lunatic asylum as attributed by Vivekananda.

Succeeding the liberation agitation, the Union Government sacked the EMS Ministry employing Article 356. That was a heavy blow inflicted on the real developmental progress of Kerala. The later history is the mixture of the brilliant fights to resist that retracing and the attempts by retrogressive forces to block that move.

What it means to celebrate the golden

jubilee of the first ministry of united Kerala is, reminding the ebbs and flows of the progress of Kerala, and to learn and teach it.

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On the very day of assuming power, EMS declared the policy of Communist ministry. That oration is a manifesto of our State's developmental progress in the democratic way. The policy declaration made it clear how the promises Party put forth in its election manifesto would be materialised, what would be the obstacles and what would be the code of conduct of the Communist ministers.

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EMS asserted the importance of bringing many private establishments under public ownerships and nationalisation of plantation, which are owned by foreigners. EM's very famous policy declaration hints the scientific activities of future development of Kerala like friendly labour relationship, three party meeting in the case of labour dispute not using police force to suppress labour strikes, handing over of agricultural land to farmer, right on land by tenants, prevention of evacuation, popularisation of educational and health sector etc.

EMS told to the Opposition: " Criticise our government as being an opposition, expose the flaws in the laws presented or steps taken and injustice or unrighteousness done by government collectively or a minister personally. These activities are the duty of these parties and organisations. We will welcome that with absolute sincerity too.

At the same time, these criticisms are to be performed with the aim to correct the mistakes of the Government and for the same reason I request them to remember that it is the responsibility of the opposition to render support for the good deeds we perform."

By pointing out that Communist Party took same stand towards the Congress – PSP Government in Travancore – Cochin Legislature, EMS continued, " If other parties decide to take such a stand, I have no doubt that the new government can start and carry ahead, at a certain extent, the job to build up a democratic and prosperous Kerala."

The people of Kerala welcomed the policy declaration with great enthusiasm. The message was highly democratic. The Government is moving ahead very disciplined considering the opinions and suggestions of both the Opposition and the public. But in what the Opposition engrossed in the very beginning is trying

to coup the government by propagations in the opposite direction.

The opposition engaged in relentless activities both inside and outside legislative assembly to destroy Communist Ministry. It was unbearable to them that a government, standing for the interest of the working class and farmers, was ruling the State. What they tried was to make a beeline of all retrogressive, vested-interested and conformist people and then turn them against the Communist Government. Thus, Opposition as leader, a communal, sectarian and retrogressive form of organisation originated.

For that there were three key fundamental reasons. Declaration of prevention of eviction was the first action EMS Government had taken. An

Reforms Bill was introduced. The Land Reforms Bill suggested giving land to the possessor after fixing a customs lease. A fair limit was fixed for the volume of land that could be in one's possession. How could the giant landlords who kept in their custody thousands and tens of thousands acres of land, bear that?

Detailed discussion occurred before preparing the Land Reforms Bill. The Bill was prepared with group discussions. What made those discussions live was not the expertise in law but, on the other side, the experience in working among farmers and agricultural labourers for a long period.

By passing Land Reform Bill on June 10th, 1959, feudalism was destroyed legally. A step towards realising the slogan, 'Agricultural land for the Farmer.' But there were a few hurdles before bringing

But the landless will not become landlords just because a law is introduced. The Land Rule passed by the Legislature was a result of the strong public agitation. Strong agitation was also needed to implement it in proper way. Remember the legendary agitations taken place in two terms since the last of the year 1969. By fencing their land by both farmers and tenants in terms the first phase of agitation and by trespassing excess land, buildings and huts, and by performing cultivation and harvesting in the second phase of agitation. AKG's brilliant fight in parliament. As a result of all these Central Government was resorted to include the Land Reforms Act in the ninth schedule of the Indian Constitution – all those made Kerala what it is. That means conflict and rule



The Chief Minister V.S. Achuthanandan and his colleagues are leading a rally organised in connection with 50th anniversary of the First Democratic Government.

ordinance preventing eviction of anybody. That emergency law came into force just within one week (April 11) of the ministry assuming power. That was the demand raised by Karshaka Sangh since 1936 and Farmers' and Labourers' Movement since 1940. Farmers' and Labourers' Movement had been conducting very strong agitations along the State against eviction. The progressive background formed out of those agitations – the Communist Rule that came into existence on that background; the order issued immediately after taking power against the eviction of farmers from the lands they cultivate. That rule was a heavy blow on landlords and retrogressive forces.

Subsequent to that, the Land

that law into force. Moreover, there was strong protest also.

Revenue Department was handled by P.T. Chacko during the R. Shankar Ministry in 1963. What was done on that time was deforming the Land Reforms Bill. Later, when EMS came into power again in 1967, a comprehensive Land Reform Act was introduced. By then agricultural labourers became owners of the land. It was directed that the land beyond the ceiling should be declined as excess land. It was also decided to hand over the excess land to the landless. Ten cents in village and five cents in cities became tenants' right. The tenant became owner of the land by giving customs lease on instalment basis.

are a pursuit or are reciprocal. The 1957 Communist Government was nothing but a form of agitation. Communist governments working under the bourgeois set up are a genuine form of agitation even while they are being governments also.

The Education Bill introduced and passed by Education Minister Joseph Mundassery in 1957 June is the one which created revolution in the educational arena. As in the case of land, in the field of education also a kind of feudalism was in existence. Education Act provided facility for education for all; introduced the practice of giving salary to the teachers directly by the

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From the First Democratic Leap

J. N. Ajithkumar

The golden jubilee celebrations of the first democratic government in Kerala are on now. The first elected government after the birth of Kerala came to power on 5th April 1957. The Government led by The Communist Party demolished the fabric of the long-existed feudalism in Travancore, Cochi and Malabar regions, it's anti-farmer practices, the practice of denying justice to the poor at

a time when policemen and officials danced to the tunes of the landlords, the worst situation caused by the anti-progressive governments until 1957, the status of private schools as moneymaking institutions for the managers and condition of the teachers being degenerated in to servitude.

Eventhough the first Government headed by E.M. Sankaran Namboothirippad held power only for 28 months, it could act according to the public opinion and lay the foundation

for the development of Kerala. During that brief period, 72 Bills were introduced in the Assembly of which 67 were passed. The most important Bills among them that marked history were the Education Bill and the Agrarian Relation Bill. The Education Bill was made into law.

The Cheif Minister and his colleagues etched their marks in various fields. Justice V.R. Krishna Iyer and K.R. Gouri Amma are the only surviving members of the first EMS Government. Krishna Iyer who was a renowned



FOUNDERS OF DEVELOPMENT: First EMS Ministry

Accomplishing Heavy Duties Try the Level Best

Reproduced here is the article published in Desabhimani daily on March 28, 1957 introducing the views regarding the government.

E.M.S. Namboothirippad

The people of Kerala have entrusted my party and me a heavy responsibility. In order to accomplish it I personally and the party collectively will do the best.

Establishing an own rule of the Communist Party is not the intention. What the Party aims is a democratic government free of corruption and bribery, in lieu of Congress. The Party requests the cooperation of all democratic parties in this regard.



advocate (later he became Judge in the High Court and the Supreme Court) and a public worker proved his ability in administration within a short term. The master plan made under the leadership of Krishna Iyer to use up river water resources of Kerala was an example of his farsightedness and administrative qualities.

K.R. Gouri Amma was also an advocate and a social worker. She was the

landless poor was the force which made her along with other leaders work for the Bill. Here are some excerpts from the exclusive interviews given by Krishna Iyer and K.R. Gouri Amma to Kerala Calling on this occasion of the Golden Jubilee Celebrations of the first E.M.S. Government.

V.R. Krishna Iyer

[Could you assess the role played by the first E.M.S.](#)

The Party has to carry out the responsibilities for exempting farmers from heavy tax, lease charge and debt, upgrade the standards of living of ordinary people etc. Help may be rendered to fulfil these obligations.

It was not an accidental incident that Communist Party secured majority in the general election of 1957. Today the Party reached the banks of power through the hard and sacrificial activities of the past several years.

Many a number of comrades and valuable activists have been lost during these activities. Many a number of comrades have become martyrs. On this occasion one cannot keep away from remembering them. Among them, the memoirs of one person rise up before me – that of Com. Krishna Pillai. I feel sad that these beloved comrades were not with us today. Tens of thousands of people who were not with them are also now in the Party. The Party achieved success today as a result of the performance of all these people.

The words written by Com. Krishna Pillai just before his death due to snakebite – “*Sahakkale munnottu*” (Go ahead, Comrades...) – can never be forgotten by any communist in Kerala. Wherever he works, even in the ministerial chairs, the message of the Comrade, *Sahakkale munnottu* will be remembered. That will render us enthusiasm and spirit. The recollections of the martyrs from Kayyur to Punnappra-Vayalar will enable us to accomplish any heavy obligations. My humble salute to all.

(Taken from EMS: Complete works)

master brain behind the Agrarian Relation Bill. Sympathy towards the

[Government in the development of Kerala?](#)

As a member of the first Government I am happy and proud to learn that people of Kerala still remember the first E.M.S. Ministry. On the first day of governance itself, E.M.S. very obviously made it clear the aims of his Government. It was not to create a communist revolution in Kerala; it was impossible and impractical. On the other hand, as the Party was with the national leaders of India during the struggle for Independence, its aim was to create a democratic Government in which the people have the ultimate sovereignty. It also aimed at distributing the agrarian

land to the farmers, establishing industrial institutions, which would ensure labour to labourers, provide equality among the people and thus wielding human rights completely as a weapon to alienate capitalist forces. It also aimed at utilising the abilities of the people for the development of the state. This was the fundamental advantage.

[Your portfolios and their functioning?](#)

Law, Home, Prison Administration, Water Resources, Electricity, Social Welfare, Inland Navigation etc. were the portfolios given to me. I am proud to remember that we could achieve great progress in all these departments. I have also contributed in my own way to fulfil the aims designed by that government.

No one could deny the fact that the E.M.S. Government had achieved great progress in educational and agricultural fields. Nevertheless communal forces, capitalists and landlords got united against us. They had the support of the Congress party. They were also assisted by the racial and religious forces. When their agitations ended in failure, the Nehru Government dissolved the E.M.S. Ministry, misusing the Article 356 of the Indian Constitution. The right wing headed by the Congress has not yet shown the integrity to confess the guilt and admit the wrong done 50 years ago by the Nehru Government.

[About the dissolution of the Government?](#)

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[How far, do you think, the later Governments have deviated from the development vision initiated by the 57 Government?](#)

Unfortunately, the socialist idea could

not be spread effectively in the State. The reason behind it was that the capitalists and the landlords used all their measures to keep the people as their slaves. As a result the progressive policy of the 57 Government to provide rights to the labourers without using force failed. The later Governments failed to retain the vision of the E.M.S. Government. Even the courts of law deviated from the left wing stream of thought. Eventhough there were a few advantages, the reality was that the right wing deviation took a conservative stand. That happened during the Nayanar reign as well. No major initiative took place to execute pure socialist policies in the last few decades.

[Could you explain the change which took place in the field of](#)

[keeping law and order?](#)

E.M.S. Government tried to eradicate corruption in the Home Department. The Government carved out an administrative policy with respect to the public interest and sincerely tried to implement it. But today we come across corruption in every field. I would not like to elaborate much on this.

K.R. Gouri Amma

[About the development agenda of the first E.M.S. Government?](#)

At that time there was no decentralisation. The gravest concern in Kerala was related to the agricultural sector. The then ruling leadership realised that and took agricultural sector as the most important issue. The Agrarian Relation Bill laid the foundation for the development of Kerala. The two outstanding achievements of the E.M.S. Government were the Agrarian Relation Bill and the Education Bill.

[As the Revenue Minister of the E.M.S. Government, could you explain more about the Agrarian relation bill?](#)

The Bill was framed with the help of the then Advocate General Surya Narayana Iyer, at the Munnar Guest House in 1957. The Bill was published on 18th December 1957. When the Bill was left to the consideration of the public, nearly 2000 amendments were suggested by them. As the law was enforced, the farmer got tenureship of land. The farmer got three cents in the corporation area, five cents in the Municipal area and ten cents in the Panchayat area. The farmer toiled hard. Agricultural production increased. Food security was achieved. Prosperity became a reality.

[Is a Second Land Reforms Act necessary in the present state of affairs?](#)

My humble opinion is that a new Act is necessary. Today most of the farmers leave their lands barren. Farming ceased to be a source of income to the farmer. In the agricultural field there were no major steps taken to increase productivity. The law was implemented to make the farmer earn income through hardwork. The farmers need water, fertilizers, technology, mechanisation etc. But they did not get those things. The banned tenure system has returned. This is illegal. This points out that the scope and aim of the Bill has not been realised. Hence a new Act is inevitable.

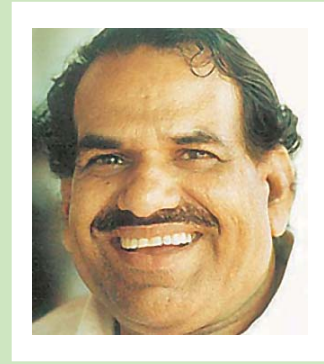
[Could you relate the changes took place in administrative set-up?](#)

In 1957 there was only one corrupt person in the secretariat. What is the situation today? The Government servants believe as if the departments belonged to them only. The servants and their unions should change their attitude. The common people should get access to the various Government departments. There should be security to the life of the ordinary man. His living standard should be increased. The officials who fail to solve the problems of the public should quit.

[What about the condition of women in Kerala in the last 50 years?](#)

In the field of education and career, women in Kerala have come out with flying colours. Nevertheless exploitation and violence against women increased considerably. Marriage expenses increase day-by-day. ■

Responsible Tourism Vision



Kodiyeri Balakrishnan

Minister for Home and Tourism

Kerala has been recognised as the best tourism brand in the world. This is achieved by introducing variety tourism products, developing new centres of attraction and upgrading the existing major centres. Kerala tourism, which attained the zenith of achievements by target-oriented planning and better marketing techniques, has realised maturity with the vision of responsible tourism.

Though the human interest for travelling is centuries old, it was by 1960s only tourism emerged globally in the present form and nature. Tourism was declared as an industry in 1986 in India. The organised and planned tourism development became a possibility from then on.

The flow of tourists and the income from it is increasing in Kerala year by year. In 2005, 3.46 lakh foreigners and 59.46 lakh tourists from other states of India visited Kerala. The total income is Rs.7738 crore. Tourism Department aims at a growth rate of five per cent in domestic tourists and 20 per cent in foreign tourists this year. But, the statistics indicate that these targets will be outnumbered by a wide margin. In 2006, 4,28,534 foreigners and 62,71,724 domestic tourists visited Kerala. That means a growth of 5.47 per cent in domestic tourists and 23.68 per cent in foreign tourists.

I have the gratification of implementing lots of new projects within ten months since the Left Democratic Front Government came into power. The Government could start 140 ventures that include Sarovaran (earlier Swapna Nagari), which was held up in red tape, International Convention Centre at Akkulam in Thiruvananthapuram, Kerala

House in Mumbai, the decision to construct Kerala House in the government land in Chennai, the Thusharagiri project in Kozhikode etc. Proposals for Rs.215 crore have been submitted for Central aid. In this, recognition is granted for Rs.40 crore projects. As a recognition for Kerala Tourism Department is working with insight and efficiency, Kerala got three national awards that include the best tourism state. To make it sure that more investment will be done in tourism sector, Tourism Infrastructure Development and Finance Corporation will be set up soon. Finding capital for tourism entrepreneurs and public sector undertakings like KTDC, encourage investment in tourism sector, enhance basic infrastructure etc. are the aims of the corporation.

It is to avoid monopoly in reaping the benefits of tourism by a group of capitalists and to assure nature conservation while ensuring private participation in tourism development, Government have taken the policy of Responsible Tourism. What it means is tourism development that is responsible to nature, culture and the people. Natural, economical and social responsibilities are to be fulfilled. The opportunities, yearnings and possibilities for this should be made useful to the ordinary people. Formation of novel projects by compiling traditional industrial sector and agricultural – cultural fields with tourism by Government was with this aim. Tourism Department encourages souvenir production with the aim to the welfare of labourers of both handicrafts and traditional industries.

Government has plans to build handicrafts community and heritage villages. The handloom village prepared at Balaramapuram is a step in this

direction. It is to hook up agriculture sector with tourism that farm tour, home stay etc. are introduced. Presently, foreigners identify Kathakali alone as the symbol of Kerala culture. What is true is that there would be no other place in the world like Kerala in the case of art diversity. All these art forms are colourful as well as attractive. Tourism Department has taken steps to expose the richness of Kerala's culture before the world. A cultural calendar incorporating so many cultural festivals like Nisagandhi Dance Festival will be published

Special attention will be rendered to give space in this calendar the locally important cultural fests.

Government have given direction to private entrepreneurs to collect materials locally for the day-to-day activities of each project they are to run. Hotel industry, for example. To run a large scale hotel products should be bought from the locals as far as possible. Job opportunities should be shared with them also. At present, tourism sector is able to provide 10 lakh jobs directly and indirectly. In the coming years, around 50 thousand job opportunities will be created. Opportunities are abundant in the hotel sector. Presently around 6,000 classified hotel rooms are there in Kerala. This need to be raised upto a minimum of 18,000 in number. In such a situation, large amount of job opportunities will be created in the hospitality arena. Government have started to take steps to develop human resource for the same. Central aid is sought for the establishment of Foodcraft institutes with their own buildings in 12 centres in the State. It is to prevent the shrinking of tourism development in certain tourism attraction points, that Government have envisaged tourism-friendly village project. This aims to implement at least a single project of Tourism Department in each and every Grama panchayats and municipalities. ■

The Trendsetter Kerala

Dr B.Vijayakumar

Global attention to this narrow strip of green land bordered with Arabian Sea and located in the southern part of peninsular India, dates back to centuries. While discussing Travancore and its people in his 'The Land of Charity' (1870) Rev. Samuel Mateer stated "Much are the magnificent views of hill and dale, of wooded jungle and cultivated lands - verdant rice fields gleaming in the brilliant tropical sunshine, lakes of rich emerald green,

belts of forest and isolated masses of rock rising abruptly from the surrounding country with the lofty mountain peaks of Ghats, shining calm and majestic in the distance". Not only the scenic beauty and people but the culture, polity and economy also attracted people from far and wide. The ongoing experiment and development debates have elevated the state to enviable heights that Kerala is quiet often considered as a trendsetter in the development paradigm. The covetable achievements gained through various social reforms movements, land reforms, decentralisation, participatory development and human development

stand a testimony to this. The exercise of trial and error and model building still continues that the state has succeeded in establishing its identity in tourism development. Today Kerala is reckoned as a trendsetter in tourism in abroad also.

As a fashionable, challenging, competitive and sensitive industry, tourism demands vision and creativity from planners and developers. Mass tourist who lives in environment bubbles caused dire consequences to society and environment. This has mooted the search for alternatives. In order to accommodate the changing taste and preference of tourists and to bring more





Asokan Pallickathodu

people into the ambit of tourism, the industry is introducing new and better varieties of products and promotes sales and marketing by highlighting their uniqueness.

The trendsetter

Kerala is the pioneer in India to identify the economic potential of tourism and develop it in consonance with the over all socio economic development programmes of the state. By integrating tourism with other development activities and promoting the participation of host community in tourism centres the state has set a strong footing for inclusive growth of tourism for achieving sustainability. The uniqueness of Kerala tourism lies not only in its products but extends to development and management also. To begin with; the State has a well-knit organisational structure. With the Ministry of Tourism, Government of Kerala at the apex level, the industry is

facilitated by the Department of Tourism. The activities of the departments are well planned that they include development of infrastructure, destination development and planning, publicity and promotion, human resource development, investment promotion, conservation and presentation of heritage and culture, specialised tourism, safety and securities of tourists, information dissemination, product development, research etc. The department extends its services to all stakeholders in tourism including the public and private sector, which can be emulated by others.

The state has also floated a corporation, the Kerala State Tourism Development Corporation, a commercial agency to indulge in hoteling, transport and wayside amenities. The Tourist Resort Kerala Ltd. (TRKL), a subsidiary company, is a nodal agency for attracting private investment. At the

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district level, district tourism councils were formed for developing local tourism, awareness campaign, promotion of homestay and providing local basic infrastructure for tourism. While Kerala Institute of Tourism and Travel Studies (KITTS) is vested with the responsibility of manpower development for tourism, the Thenmala Ecotourism society, the maiden attempt in the country, was formed to promote ecotourism in Thenmala, its surroundings and also to introduce ecotourism projects in other parts of the State. The Department of Tourism is doing a yeoman service in Kerala. The Kerala travel mart, International Boat show, Mystiques of Malabar, Nisagandhi dance and music festival, participation in international and national trade fairs are some of the major initiatives by the Department for promotion and marketing. The concerted efforts in this field has enabled the State to bag a good number of national and international awards and elevate the State as a model

for organisational structure and management in one of the perspective sectors of this millennium. To safeguard the interest of all stakeholders and to promote tourism along sustainable line, Kerala has brought out its tourism policy, and vision 2025. These are monitored periodically and steps are being taken to make the sector vibrant. How to trickle down the benefits of tourism to the host community without impinging the socio economic environment is a major question posed in the tourism world by all nations. To address this issue and to find out ways and means Kerala took the lead to host an international workshop on Responsible Tourism during February 2007. Thus in planning, management and development with social commitment Kerala provide a model for others to emulate.

Product development

Product development in tourism demands much creativity and innovation. The tourism consumer

basket of Kerala is filled with diversified products. They include beaches, back waters, pilgrim centres, ayurveda, wildlife sanctuaries, ecotourism, fair and festivals etc. While a few of them are

Kerala is filled with diversified products. They include beaches, backwater, pilgrim centres, ayurveda, wildlife sanctuaries, ecotourism, fairs and festivals etc. While a few of them are unique to Kerala, the State has managed to highlight the uniqueness of other products that are familiar elsewhere.



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unique to Kerala, the State has managed to highlight the uniqueness of other products that are familiar elsewhere. The drive in beach, cliff at the beach, calm and serene beach in the back drop of traditional living, secular pilgrim centres, tradition bound, knowledge-based fares and festivals, multilingual host population diversified products at close proximity are some factors that add to the uniqueness of other products in Kerala.

Now the State is poised towards developing new tourism products to sharpen its competitive edge in the global market, Medical tourism is one of the areas. Recently a good number of specialised medical centres have come up in Kerala with sophisticated technology and expert practitioners. A comparative analysis of international health care expenditure shows that most of the fatal diseases demanding huge expenses can be treated in Kerala in a cost effective way. The State can create a package for 'happy treatment with family' and promote medical tourism by

making use of tourism facilities also. Steps in this direction are already initiated.

Village tourism is another booming area. Kerala villages are known for their serene beauty and traditional living. The greenery, customs, tradition, art forms, way of living, fairs, festivals, food, traditional knowledge etc. are some dominant features that attract tourists to villages. The concept of endogenous tourism is promoted in this context at Kumbalangi in Ernakulam district, adding uniqueness to Kerala tourism.

Conservation of forest and heritage is of prime importance to any society and this is particularly true to Kerala, by forming Eco-development committees and Vana Samrakshana Samithi, the state has made successful intervention in promoting wildlife tourism along sustainable lines. The tree houses, trekking, tribal heritage museums, jungle in programme, eco lodges, bamboo rafting etc. are some of the added attractions in the forest and surrounding which make wildlife

tourism unique in the State.

Yoga is another prospective area for product development. One can achieve health and vitality only by pursuing a holistic approach. There are a handful of yoga/meditation centres run by yogis and few mutts also offer systematic practices in this field. Stress management has become one of the major concerns of company executives globally. There is ample scope for developing systematic yoga practices not only to executives but for the general public/tourist also. Considering this, efforts can be taken to float another product, which can also add to uniqueness. It may be concluded that there are inherent uniqueness in Kerala. But we make certain other things unique by making appropriate addition supported by creativity. Vision coupled with creativity is the hallmark of Kerala Tourism. This is the sole reason why Kerala is reckoned as a trendsetter in tourism industry.

■ The author is the Principal, KITTS, Thriuvananthapuram.



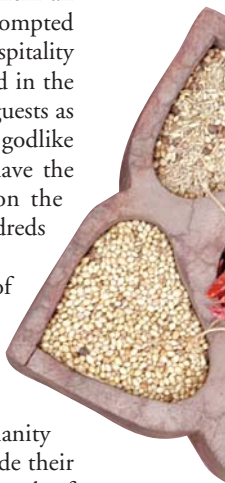
Dalu Parameswaran, J & PRD

V.Rajeevan IRPS

As the curtains are about to be drawn on yet another tourist season in Kerala, and as we look back with satisfaction on the improved statistics of tourist arrivals and our achievements in this sector, the question that comes to my mind is, why do all these people from far and wide come to this small strip of land? Is it the backwaters, the beaches, or the symphony of nature in green and blue that beckons such a large volume of travellers to this state? Technically speaking, the unique selling proposition (USP) of Kerala is presumed to be the long stretch of backwaters along the southern half of the state. Some would argue that it is the synergic effect of a good number of factors special to Kerala, which contribute to its intense popularity as a tourist spot. I feel more convinced to believe so. However, I strongly feel that the rich culture and heritage of this region add significantly to the quality of experiences of a tourist who visits this state.

Many centuries ago, when we opened our doors to the travellers and traders from across the seas and mountains, besides the rich array of spices and other unique goods, we could offer them an equally unique culture of hospitality and warmth which prompted them to return, for good and bad reasons. This culture of hospitality originated from a collective consciousness, which believed in the motto of 'athithi devo bhava', prompting us to treat our guests as gods. The usage 'gods own country' does not suggest the godlike qualities of the host, but perhaps the fact that guests have the status of gods in this country. Our tourism is built on the foundation of this age-old belief, which has succeeded hundreds of generations to be a part of our tourism heritage.

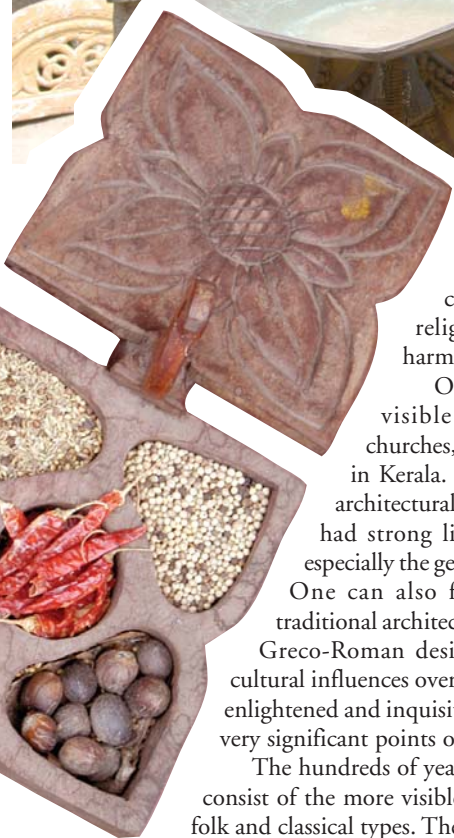
The cultural heritage of Kerala is a vast spectrum of several unique and enchanting factors. Kerala is a land of temples- some of the most ancient and significant temples of the country belong to Kerala. This is also the land of mosques- the oldest mosque of the country can be seen in Kodungalloor. And there are churches all around; Christianity came to India when the footprints of St.Thomas first made their imprint on the shores of Kerala. The oldest European church of



Culture, Heritage Rich and Ancient



Dalu Parameswaran, I & PRD



the country can also be found in Cochin today. Tourists are impressed by the close proximity of prominent religions co-existing in absolute harmony in Kerala.

Our heritage in architecture is visible in the temples, mosques, churches, palaces, and traditional houses in Kerala. We had a science of our own architectural style known as 'vaasthu' which had strong links to the forces of nature, especially the geo-magnetic influences of earth. One can also find amalgamations of our traditional architectural styles with European and Greco-Roman designs, as a result of the cross cultural influences over a long period of time. For the enlightened and inquisitive group of tourists, these are very significant points of attraction.

The hundreds of years of our cultural heritage also consist of the more visible, spectacular art forms of the folk and classical types. The performing art forms such as Theyyam, Kaliyattom, padayani etc, associated with our own myths and legends, and to our temple rituals, have always fascinated the minds of those from other lands. The Kathakali, which can be compared to the pantomime dramas of Europe, is the most sought after art form by tourists in Kerala. This fascination has prompted them to study and document these art forms for a deeper understanding and enjoyment. In fact, tourists may have paid more meaningful attention to our art forms than we may have done.

Folklores and myths weave an aura of fantasy around places

and monuments. It inspires the imagination of the romantic traveller to listen to the half historical, half mythical tales of bold kings and valorous warriors, of love fulfilled and lost, of sacrifices and treachery, as they walk through the corridors of Padmanabhapuram palace, or the fighting arena of 'mamankom' festival, or the land of Pazhassi Raja or Thacholi Othenan. The relics and monuments associated with these incidents and stories create a magical effect while conjuring vivid images in the minds of tourists.

Our traditional handicrafts can provide the best of souvenirs for the visiting tourists to take home in remembrance of their visit to Kerala. The traditional handloom products of Balaramapuram, the fascinating Aranmula Mirror, the coir products of Alappuzha, the handicrafts of various districts offer a wide range of interesting articles which could be offered as souvenirs. Unfortunately, this process is still thriving in the unorganized sector.

Our tourism industry draws a lot of strength from the rich coffers of our culture and heritage. However, we have not yet succeeded in showcasing these factors in an organised and effective manner. The time is ripe for taking serious initiatives in doing so, and re-branding our image from just beach and backwaters to that of a culturally enriched, unique destination which could attract the more inquisitive, intelligent section of travelers from across the world. The Tourism ministry has already taken the first steps in this direction by declaring a policy of cultural tourism and is currently in the process of charting out a calendar of cultural events. In the years to come we may find the external world rediscovering Kerala in the light of its immensely rich culture and heritage.

■ The writer is Director, KITTS, Thiruvananthapuram.

Shaji Madhavan

Bekal- a sleepy coastal region in Kasaragod district is nature's bounty with pristine beaches, unpolluted and crystal clear backwaters, Western Ghats, hills and forest. The array of forts, numerous pilgrim centres and other heritage sites enhance its cultural value. Vibrant folk art forms like Theyyam and colourful festivals of different community make life so live in this region. The confluence of Kerala and Kannada culture and its manifestations in life and custom make the region so diverse. This diversity of nature and culture is the basic tourism resource of the region.

Bekal has been chosen as a Special Tourism Area by Government of India for integrated and planned tourism development. Bekal was the only one in Kerala. A Public Sector Company, Bekal Resorts Development Corporation Ltd, has been set up for the project implementation. The mandate of BRDC was to develop Bekal in to an international destination. Based on the recommendations of scientific studies conducted by expert agencies, the company has implemented various

infrastructure projects for facilitating tourism development in the region. Every infrastructure planned in Bekal has counted the requirement of local community also. Thus Bekal became the first ever planned and community oriented tourism destination in the state. Six resort sites at prime locations in the coastal area have been made available for development. All are having beach/backwater frontage. All these sites have been handed over to major hotel developers through open bidding process on long-term lease basis.

These agencies are supposed to develop five star or above classified beach resorts. The first resort is expected to be

ready for occupation by July 2007. Companies like CGH Earth Kochi, Air Travel Enterprises, Khanna Hotels Mumbai, Bharath Hotels, New Delhi, Holiday group UAE, Globlink Hotels, Jamshedpur are in resort development at Bekal. Strict guidelines are laid for the physical development of properties. All these developments are taking place after obtaining statutory clearances from local Panchayat, various authorities from State and Central Government.

Apart from land, BRDC has developed a seven million litres per day capacity drinking water scheme for meeting the requirements of the resorts and local community. Many new roads

International Beach Destination Bekal



are developed at Bekal. Another major road development scheme of 7.5 crore rupees with the assistance of NABARD is in the pipe line. This will enhance the road accessibility to resorts as well as the entire coastal stretch.

In order to have varied attraction in a tourist circuit, BRDC have integrated tourism development of Bekal with other tourist spots in the district. Ranipuram and Kotanchery hill stations, Valiyaparamba backwaters, Ananthapuram lake temple and other tourist spots were taken up for development. Like wise the cultural assets like heritage sites, folk art forms were also brought into lime light.

We believe we could lead the tourism development activities of Bekal destination. Upgradation of infrastructure, introduction of additional facilities and destination promotion

Hill stations of Ranipuram and Kotanchery attract genuine trekking groups. Since the area is uninterruptedly connected with the Coorg Forest (An internationally famous trekking area in Karnataka), many trekking groups are visiting here also.

islands and the life around attract nature lovers as well as common tourists. Houseboats, Speed boats and Hightech Sun tracker pontoons are made available by BRDC for exploring this backwater. Valiyaparamba region is being developed as satellite destination for Bekal. Government has assigned BRDC to implement a rural community tourism project in this region.

Hill stations of Ranipuram and Kotanchery attract genuine trekking groups. Since the area is uninterruptedly connected with the Coorg Forest (An internationally famous trekking area in Karnataka), many trekking groups are visiting here also.

Kasaragod district is otherwise known as “the land of forts”. There are about nine small and big forts in the district. In nut shell Bekal is “sample packet of Gods own country”. It offers everything that



programme are the new areas of concentration at Bekal.

Much more to Bekal, than the Fort

The mighty Bekal Fort on the side of Arabian Sea is the core attraction of Bekal. The fort is built by Ikkery Shivappa Nayak during AD 1645 -1660. This is the largest and the best preserved fort in the state. Due to the archaeological significance, the monument is under the control of Archaeological Survey of India.

The shallow Bekal Fort Beach at Pallikere, which is having a length of more than four kilometres, is one of the best beaches in south India. The Bekal Fort beach park- spread over 12 acres of land

developed by BRDC is a must see spot in north Kerala. The park is facing Arabian Sea as well as the mighty Bekal Fort. Apart from the vast landscape, ample recreation facilities are provided for kids and family. A tented camping accommodation is also provided at the coconut Plantation at this beach area. The palm lined Kapil Beach- the hot spot for sun, sand surf lovers is about four kms north of Bekal Fort. The beaches of Valiyaparamba islands and Azhithala at Nileswar area are offered along with the backwater tour package.

Valiyaparamba backwaters and its islands are often referred as the cleanest backwaters region in the state. The tiny

Kerala is known for to the tourists.

Bekal - The nucleus of Malabar

Malabar is a strong brand name in the international tourism market. It has many unique and offbeat attractions to boast with. On contrary, the region is far behind in respect of facilities.

At the same time, international hotel chains are developing world class hotels at Bekal. Being a destination with class attractions and class facilities, Bekal has the opportunity to serve as the nucleus of Malabar tourism. Bekal will definitely mesmerise the global travellers.

■ The author is Managing Director, Bekal Resorts Development Corporation Ltd

Dileep M.R.

Kerala is renowned for its lush vegetation, tranquil and beautiful beaches, sprawling backwaters and stunning mountains. Perhaps no other state in India has been blessed with natural resources as rich and immense as that of Kerala. It has rich and distinct environment featuring a long coastal region, elaborate systems of waterways and bio-diverse mountains. Whoever visits Kerala has a special

natural reservoirs enriched by abundant greenery and the houseboat cruise along them forms backwater tourism. The greenery of backwaters is unmistakably an important component of backwater tourism, a Unique Selling Proposition (USP), among multi-USPs of Kerala Tourism. Unlike many other states in India, Kerala is famous for its evergreen forests and it is rich with flora and fauna. Many other natural locations are present which are ideal for tourism. All these offer base for Eco-tourism, Nature tourism and

The name 'Keralam' itself is originated from the name of one of its natural resources. Though there are some mythical stories about Kerala's formation, the most popular version is that the state Keralam is named after the coconut (Kera), Kerala being known as the land of coconuts, a natural resource in abundance. Kerala, a land in southwest of India covers an area of 38,863 sq.km. It is located between Lat.8° 17' and 30'' and 12° 47' and 40'' North and Long. 74° 24' and 47'' and 74° 51' East.

Kerala Unique in Variety



mention about its natural beauty. These unmatched, invaluable and rich natural resources either form different unique tourism products or form part of similar products.

Beaches in Kerala are world famous. The serene and bluish sea, golden sand, warm sunshine and picturesque landscape constitute beach tourism, which is marketed as a unique product of Kerala. The sprawling backwaters,

Adventure tourism, which are also unique to Kerala. Hill station tourism, Plantation tourism, Farm tourism, Spice tourism, Rural tourism, etc. too are in one way or other depend on the natural resource base of Kerala. Thus, scenic beauty and natural resources are the most important component of tourism in Kerala, the 'God's own Country', which are marketed and promoted aggressively as unique products worldwide.



Kerala can be classified into five physio-geographic zones, viz. mountain peaks about 1800 mts above sea level, the highlands between 600 and 1800 mts, the mid lands between 300 and 600 mts, the low lands between 10 and 300 mts and the coastal plains and lagoons between main sea level and 10 mts above the sea level. The Western Ghats, lying on the eastern belt of the state with dense forests mountains, it runs along eastern side roughly parallel to the sea in the west.

A number of Plateaux are identified in the western ghats. Wayanad, Nelliampathi, Munnar, and Greater Periyar, some major plateaux, are occurring at various levels. Valleys are also seen in the eastern parts of the state like the Silent Valley. Idukki high ranges with several peaks topping 2000 mts above sea level are home to the longest river in Kerala, the Periyar and its tributaries. These high ranges are characterised by a series of plateaux like Devikulam, Eravimala etc. and they consist of rich

ecosystems in Kerala. The wetlands constitute yet another productive ecosystem which supports unique aquatic flora and fauna includes waterfowl, fish, shell fish, etc. The fish and some other biotic resources are important cuisine items being promoted as part of tourism. As per official classification, Kerala has 41 west flowing rivers and three east flowing rivers. Most of the rivers in Kerala form backwaters before debouching into the sea. Along with estuaries, they form a virtually interconnected water bodies.

other cultivations are usual attractions for the tourists.

Salubrious climate is another uniqueness of Kerala. The temperature is neither too high nor too low. Western Ghats have profound influence in maintaining moderate climate regime suitable for tourism for the entire Kerala. Sunbath is an important attraction for beach tourists to the State. Monsoon tourism is another tourism product launched recently by Kerala Tourism, in which climate is the ultimate factor. The State has a heavy rainfall season during the first monsoon period and has a less plentiful north east monsoon. The onset of the southwest monsoon is usually very dramatic towards the end of May to early June. It is heralded by the massing of dark clouds in the western horizon flashing lightning and continuous peals of thunder. From mid September/October, the northeast monsoon is heralded by thundershowers. Kerala records 2.78 time more rainfalls than national average. Kerala is also considered as a land of water, with an average three meters of annual rainfall, chains of backwater bodies, reservoirs, tanks, ponds, springs and wells. In Kerala, average number of rainy days is 126 per year. Kerala started to promote Monsoon Tourism aggressively and thus tourism can be made as an year round phenomenon, by minimising the off season. Monsoon in Kerala, when the whole State drapes in refreshing green, is an ideal time for one to relax and unwind. The beauty of monsoon in Kerala has been appreciated by many and the best example is the 'Chasing the Monsoon' written by Alexander Frater who narrates the towering influence of rain over the lives and culture of the people in Kerala and India at large. December is perhaps the coolest month with low night temperature. Winds, except during southwest monsoon period, are gentle. Overall the climate itself is an essential attraction in the case of tourism in Kerala.

Forests constitute another important resource for tourism in the State. Unlike many other States in India, Kerala is rich with evergreen forests. It has over 25% of India's 15,000 plant species, where majority of them grow in Western Ghats. It includes 150 ferns, 4000 flowering plants, 600 fungi, 800 lichens and 200 mosses. A large number of them are endemic to Kerala.

Ecotourism and wildlife tourism

Tea, Coffee and Cardamom estates including legendary Kannan Devan Hills. All such ranges and plateaux are unique tourism destinations.

The coastal plains marked by dunes, ancient ridges marking the old alignment of the seacoast, barrier flats, alluvial plains, flood plains, river terraces, marshes and lagoons. Tourism has flourished in these coastal areas in different forms. Forests, wetlands, mangroves and aquatic ecosystems are the major types of

Lagoons, bodies of brackish marine or hyper saline water, impounded by a sandy barrier and have an outlet connecting with the sea, through which some perennial rivers may be debouch into the sea. The lowland around Vembanad has been converted into paddy fields, which is the famous Kuttanad region, much of which is below the sea level. Tourism activities are there in some of the larger rivers like Bharathappuzha. The paddy fields and



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occur in forest areas in Kerala. Forest types include Tropical Wet Evergreen, Tropical Semi Evergreen, Tropical Moist Deciduous, Moist Evergreen forests and Shoals that are seen in valleys and the steep protected slopes. Kerala is rich in fauna as well. Wildlife population consists of 100 species of mammals, 550 species of birds and 169 species of reptiles. Antelopes, Deer, Tigers, Leopards, Cat, Wild Dog, Elephants, Bonnet Macaques, Common Langurs, Slender Loris, Lion-tailed Macaques, Nilgiri Tahr, Sloth Bear, Gaur, etc. are the commonly seen animals in the forest areas in Kerala. Tropical wet and moist evergreen forests have the largest share in the state's total forest area. Eravikulam National Park (set up in 1978, area 97sq.km), Silent Valley National Park (1980, 89.52sq.km), Periyar Tiger Reserve and Wild Life Sanctuary (1950, 777.54sq.km), Peechi-Vazhani WLS (1958, 125 sq.km), Neyyar WLS (1958, 128sq.km), Parambikulam WLS (1973, 285sq.km), Wayanad WLS (1973, 344 sq.km), Idukki WLS (1976, 70 sq.km.), Peppara WLS (1983, 53sq.km), Thattekkad WLS-Bird sanctuary (1983, 25.16sq.km), Aralam WLS (1984, 55 sq.km), Chimomy WLS (1984, 75sq.km.) Chinnar WLS (1984, 90.44 sq.km), Shendurney WLS (1984, 100.32sq.km), are the protected forest areas in the state. Recently, authorities have converted more forest areas into protected areas. Those include Pampadum Shola National Park, Kurinji Wild Life Sanctuary, Anamudi Shola National Park, Mangalavanam Bird Sanctuary, and Mathikettan Shola National Park.

Typical of any tropical forest ecosystem, the forests of Kerala represent a dynamic repository of a wide range of invaluable resources like timber (Teak, Rosewood, etc.), medicinal and aromatic plants, bamboos, canes, orchids, wild edible fruits, honey, wax, resins, etc. Some of them are used in the souvenir industry as part of tourism. Plantations have occupied a good share of forestland. The eastern areas have one of the richest plantation territories in the world. Kerala has the earliest teak plantations, Conolly's Teak Plantation, set up in 1840s at Nilambur. Teak, Eucalyptus, Mixed Plantations, Softwood, Cashew, Bamboo, Hardwood, Wattle, Fuelwood, Pepper, Pines, Mahogany, Rosewood, Sandalwood plantations are the major

type in and near forest areas in Kerala. In plantation sector in Idukki and Wayand, different types of tourism are being promoted. Commonly, they are referred to as plantation tourism. Spice tourism is another related term used in connection with spice plantations in Kerala. These are quite unique to Kerala.

Kerala has a long chain of lagoons and backwaters, run almost parallel to the sea coast, reserves water from numerous rivers and streams. The most important backwater is Vembanad Lake, a RAMSAR site that stretches from Alappuzha to Cochin. Ashtamudi and Saasthamcotta lakes are the other two important backwaters in Kerala. The sprawling backwaters, natural reservoir encircled by abundant greenery, is one of the most important attractions of Kerala. Its greenery is unmistakably an important component of the USP of Kerala Tourism. Backwater cruises are world famous and they give everlasting memories to any visitor. According to

Abraham, one of the authors of The Rough South India Guide, "one of the most memorable experiences for travellers in India is the opportunity to take a boat journey on the backwaters of Kerala". Paddy is the most intensely cultivated field crop of Kerala low lands, though the sector suffers due to many socio-economic pressures. The lush green paddy fields in the Kuttanad area on the sides of Backwaters offer a dazzling sight for a tourist cruising in a houseboat.

Mangroves are usually considered as a resource for the development of Ecotourism. Mangroves are "wetland ecosystem formed by types of plants and animals associated together over a long evolutionary time to live in the inter-tidal regions of low lying tropical coasts, estuaries, deltas, backwaters and lagoons". In Kerala, mangroves are seen as isolated and discreet patches in a total area of less than 50sq.km. Mangroves are distributed in almost all the districts in the state. In Thiruvananthapuram district,



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mangroves are mainly seen around Veli estuary and Aakkulam region. The Astamudi estuary supports mangrove at several locations in Kollam district. In Kottayam, Kumarakom Bird Sanctuary, situated on the banks of vembanad estuary, has a continuous chain of mangroves. A few mangroves survive in Pathiramanal region in Alappuzha district. Vypin, Panangad, Kumbalam, Thrippunithura, etc. are some locations in Ernakulam, which have mangrove patches. The Chetwa estuary is the main location in Thrissur having mangroves whereas Kadalundi and Veliangode regions in Malappuram support mangroves. Beyyore estuary, Kallai riverbanks, Nadakkavu marshes along Canolly canal are the major mangrove locations in Kozhikode. In Kannur district, Dharmadom has rich mangrove growth.

Valapattanam, Anjarakandipuzha, Eranjoli-puzha, Pazhayangadi river, etc. have mangrove vegetation. Mangroves survive in some locations in Kasargode too. Directorate of Ecotourism, Government of Kerala has taken initiatives to develop mangrove based ecotourism projects and recently a special project has been developed for Malabar region. The same has been submitted to Central Government for financial support. State Government too will support it.

A number of ecotourism projects are in the pipeline. Already the State directorate of ecotourism has identified 56 locations for the development of ecotourism in the state. Konni, Kallar, Palaruvi, Thammankoothu, Nilambur, Pythamala, Aralam Wild Life Sanctuary and Periyar Tiger Reserve are the major sites in Kerala where ecotourism projects are introduced. Different ecotourism circuits are also being developed. For instance, a circuit connecting ten destinations including Neyyar, Thenmala, Konni, Thekkady, Munnar and Parambikulam is also designed for further promotion. Thenmala situated in Kollam district is an acclaimed ecotourism destination and it is developed in and around Shendurney Wild Life Sanctuary.

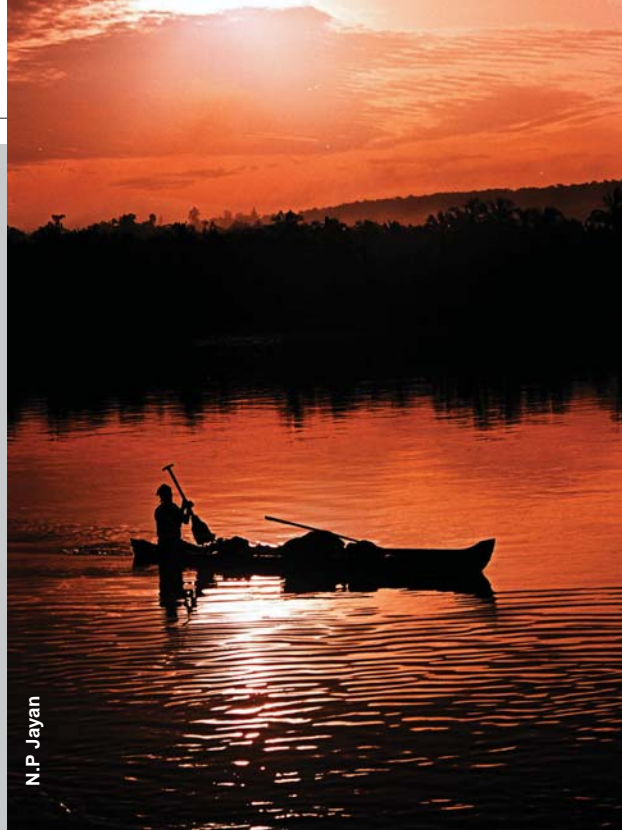
Kerala is famous for sacred groves (Kaavu), which roughly estimated to 1500 with distinct and unique biological diversity. Kunnathurpadi Kaavu in Payyannur and Theyyottukaavu in Kannur are the best examples of sacred groves in Kerala that attracts people in large numbers to visit.

Hill station tourism is one important tourism segment in the state, particularly in the case of domestic tourism. Majestically situated thousands of meters above the sea level all of Kerala's hill stations are invitingly cool and the landscapes are white haze of silence.

The hill stations are masterpieces in green and all of them offer adventurous tourism options too. With the lush green plantations, evergreen forests, scintillating valleys, placid lakes, breathtaking waterfalls, challenging rocks, Kerala's hill stations are luring tourists from all over the world. Munnar, situated right at the confluence of three mountain streams, around 1600 m above sea level, is an ideal hill station for tourism. The exotic flora, including Neelakurinji that blossoms every twelve years and the sprawling tea plantations makes the hill station very attractive and unique.

Periyar Tiger Reserve and Thekkady attract large number of tourists from world over for a long time. The PTR is one of the finest reserves in India, and it spreads across 777 sq.km of which 360 sq.km is thick evergreen forests. The amazing artificial lake formed by the Mullapperiyar Dam across the Periyar river is an ideal location for boating, which helps to watch wildlife around the lake. The diversity of the wildlife and the scenic beauty is the most important component of its attraction. Vagamon and Nelliampathi are some other hill stations that attract tourists from far and wide.

Wayanad is one region in Kerala that has been able to retain its pristine nature. It is known for its picturesque mist clad hill stations, aromatic spice plantations, and luxuriant forests. Pookode Lake, a perennial fresh water lake nestled among wooded hills, is an important tourist centre in Wayanad. Kuruva Dweep, a group of a number of small pristine islands formed by the tributaries of east flowing Kabani river, is with unique ecosystem of rare plants and birds. Only trekking can access Pakshipathalam, an abode of rare species of birds. A few waterfalls are located near the forests areas. Wayanad wildlife sanctuary is very rich



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in flora and fauna and the entire region is absolutely beautiful. The salubrious cool climate is an important component of Wayanad's tourism attraction. Wherever you stand, the cool breeze will ruffle your hair. And a journey through any part of Wayanad will give memorable experience due to its scenic beauty.

Beach Tourism is one of the most important products of Kerala promoted aggressively world over. Kovalam is the primary and foremost beach tourism destination in India. This internationally renowned beach, which consists of four adjacent crescent shaped beaches, is situated around 17 km south of Thiruvananthapuram. Varkala, Thirumullavaram, Cherai Beach, Kappad Beach, Muzhappilangad Beach, Bekal Beach etc are the other major beaches which are promoted extensively. Of them, Muzhappilangad is the only drive-in beach in India. Beach tourism circuits were proposed for further promotion of beach tourism in the State.

Many other natural resources are there in the State, which are promoted as part of tourism. Overall, Natural resources constitute the largest category of attractions in the State tourism sector and they are promoted and marketed aggressively in the global tourism market. Unquestionably, natural heritage is the cardinal USP of 'God's Own Country'.

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Palace on Waves

Houseboats



Photos: Venicexpress

Mathukutty J. Kunnappally

Kunjan Mesthiri was the very epitome of concentration and dedication as he swiftly picked out a piece of Anjili wood from the store and measured it with his *muzhakkol*, and painstakingly worked on an old *Kettuvallom*, once the workhorse of the backwaters of Kerala, in an effort to turn it into a unique tourism product, ensuring a new lease of life for the vessel, totally abandoned and forgotten in the wake of modern means of cargo transportation.

My visit to the boat and in Alummoodu near Karunagappally in Kollam district of Kerala that Sunday morning in January 1997 was multi-purpose: meet *Kunjan Mesthiri*, of whom I had heard from friends as the architect of Kerala's unique selling product, the Houseboats, visit the boatyard where all

the action over the creation of houseboats was on, and to take an overnight ride in a houseboat.

As he buried himself with the intricacies of a product for which there was no earlier models for him to refer to, the 63 year old carpentry artiste spoke to me of the struggles, trials and tribulation that finally led to the birth of a new era in Kerala Tourism, the era of the conquest of the backwaters through *Kettuvallom* Houseboats.

"It was my father *Nanu asari*

"It was my father *Nanu Asari*, one of the masters of *Kettuvalloms* those days, who initiated me into this field, which has sustained me all these years", *Kunjan Mesthiri* said.

(carpenter), one of the masters of *Kettuvalloms* those days, who initiated me into this field, which has sustained me all these years", *Kunjan mesthiri* said.

"All my life, I have been involved in this work and there were days when we couldn't take time off, even to have lunch. There were hundreds of *Kettuvalloms* plying the backwaters and many of them came to us for regular servicing, annual overhauling, the works."

"We used to go around nearby Karas (villages) to build *Kettuvalloms* on contract", *Kunjan mesthiri* continued. "But, for the past 38 years there has been no calls coming, to take advantage of our skills. Not a single *Kettuvallom* has been made since 1959."

Villages like Alumkadavu, which had found their life breath in the building and repairing of *Kettuvallom*, soon went to sleep, suffering through long years of deprivation, poverty, starvation and



neglect. Craftsmen of *Kunjan Mesthiri's* caliber and standing just about managed to make a living, doing odd jobs of carpentry, while waiting and praying for better days to arrive.

Which finally happened in the form of Houseboats conceived by a tour operator and executed it to perfection with the help of *Kunjan Mesthiri*, and in spite of detractors who predicted it to be the country-craft version of the Titanic, launched it into the backwater success story of all times.

And it meant not only the birth of a new tourism product called Kerala Houseboat, but also the rebirth of Alummkadavu into the anchor point of a whole new concept in tourism that brought prosperity to the village, a presence for it on the global tourism map and the opportunity to interact with visitors from all and every corner of the

world, who came to experience the other worldly excitement of a ride and stay on the houseboat over the Kerala backwaters.

"Tourism is something people like me could not digest in the beginning when they came with the suggestion of converting *Kettuvalloms* into Houseboats", *Kunjan Mesthiri* told me, as I roamed around his yard where workmen were busy giving finishing touches to a new Houseboat.

"Tourism has given regular employment to so many of us", *Kunjan Mesthiri* said in conclusion. "At least ten of us are now busy in this yard for the past seven years building houseboats and more houseboats. Another 50-70 are employed on the houseboats itself. At a cost of Rs seven lakhs spent from raw wood to a houseboat afloat, so much of local labour and local materials are employed and such a lot of money

circulates in the locality, providing indirect livelihood to so many more. There was a time when up to 1500 *Kettuvalloms* used to ply these backwater routes regularly. Today there are hardly 50. If we can build 1500 houseboats, each with a life span of 50-60 years, it will help change the face of coastal Kerala, as has happened in Alummkadavu, in recent years."

As houseboat *Subhadra*, with a group of us onboard lifted anchor to slide through *Vattakkayal* and into *Kayamkulam Kayal*, with captain *Raghavan* at the helm and *Roy George* as our tour escort, we were more than convinced that *Kunjan Mesthiri's* economic theory is what can save *Kuttanad* from the present ruin it is faced with.

■ Author is Editor & Publisher, Destination Kerala.





Oracles in Exultation

G. Sreekumar Pulluvazhi

from
Kodungalloor Bharani
festival site



The term Ecotourism was first coined by Hector Ceballos Lascurian in 1983 and was initially used to describe the nature-based travel to relatively undisturbed areas with an emphasis on education and contribution to the conservation.

Ecotourism

Unique Natural Heritage



Noyal Thomas IFS

Kerala, the God's Own Country, has emerged as the most sought after tourism destination in the country. National Geographic Traveller has also chosen Kerala as one of the 50 greatest destinations to be visited in a lifetime. Foreign tourist arrivals to the state have increased to the tune of 55.11% within four years. Domestic tourist arrival has increased from 44,81,714 in 1998 to 58,71,228 in 2003, an increase of almost 31% in five years. Foreign exchange earnings have also shown a remarkable growth for the last four years with 983.37 crores in 2003. According to the WTTC report, Travel and Tourism in Kerala is expected to be 11.4% per annum in real terms between 2004 and 2013. This industry is directly and indirectly contributes to eight lakh jobs in the state, which is 6.2% of the total employment generated in the State. Travel and Tourism industry is contributing to Rs. 41 billion (16.7% of the total exports) in 2003 and is expected to increase to 269.7 billion (22.4% of the total exports) by 2013. The tourist statistics indicates that Kerala has benefited immensely from the tourism sector in the nineties.

Ecotourism

The term Ecotourism was first coined by Hector Ceballos Lascurian in 1983 and was initially used to describe the nature-based travel to relatively undisturbed areas with an emphasis on education and contribution to the conservation. This term now includes visitation to all the unpolluted natural areas like the beaches, the mountains and the forests, which contribute to the education of the visitor so as to generate awareness towards conservation of these resources.

Eco Tourism in protected areas has always been mainly confined to the mass nature tourism with little or no stress on the educative as well as on the ploughing back of the benefits to the local people. Earlier the concept of ecotourism was equated with the nature tourism like



Photos: Asokan Pallickathode

wildlife tourism in protected areas or adventure tourism. However the present definition of the concept supports itself on the three pillars viz. conservation; education and generation of benefit to the local communities to qualify as true ecotourism. Thus the nature tourism evolved from exploitation of natural resources to the conservation of the natural resources with benefits to the local people. Thus it could be seen as a restricted activity subordinated to the requirements of conservation with an orientation towards education and culture and benefits to the local people who are the real stakeholders

Regulated Tourism has always been an important part of the protected area management to generate valuable revenue and also to raise the awareness levels of the people visiting these areas towards the conservation of these resources. Tourism management in protected areas has not always been a success because of the fact that the benefits have been cornered by a few with very little for the local people. In addition there has been very little flowing back of the revenue generated for the management of the protected areas concerned even though the revenue generated has been remitted to the treasuries of the state. The absence of sufficient benefits to the local people has always resulted in the antagonism of the



locals threatening the very existence of the protected areas itself. In this context, ecotourism seeks to take care not to alter the integrity of the ecosystem- to minimise the negative environmental impacts, while producing economic opportunities that make the conservation of natural resources beneficial to the local people. With the awareness of the importance of the ecotourism world over, private sector has been on the forefront to capitalise on this trend by giving the "Eco" label for commercial benefit.

Private businesses are creating camping and lodging facilities mostly adjacent to the protected areas (PAs) in an unplanned manner with the aim of exploiting the ecological awareness of the new class of the tourists especially those from the foreign countries.

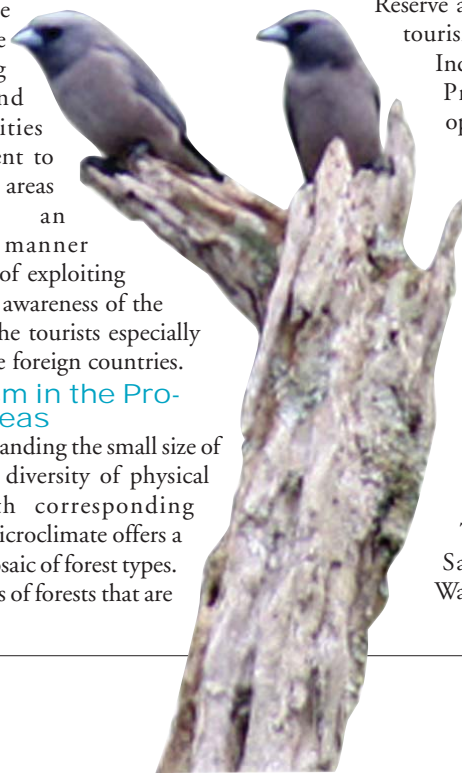
Ecotourism in the Protected Areas

Notwithstanding the small size of the state, the diversity of physical features with corresponding variation in microclimate offers a panoramic mosaic of forest types. All major types of forests that are

recognised in the Western Ghat Biogeographic province are found here. An area of 2338 sq.km is constituted as Protected Areas maintained in the form of 12 Sanctuaries and three national parks forming more than 24% of the total area of the reserved forests under protected area network. A third of the Nilgiri Biosphere reserve also falls in Kerala. Even though all the 12 sanctuaries and National Parks offer tourism facilities, ecotourism activities have been

institutionalised in Periyar Tiger Reserve as a community based tourism initiative with the India Eco Development Project that was operational from 1997 to 2002.

Community based tourism activities have been organised by the EDC's (Eco Development Committees) with participation from the various stakeholders who have organised themselves into various EDC's. The other major Sanctuaries like Wayanad, Parambikulam





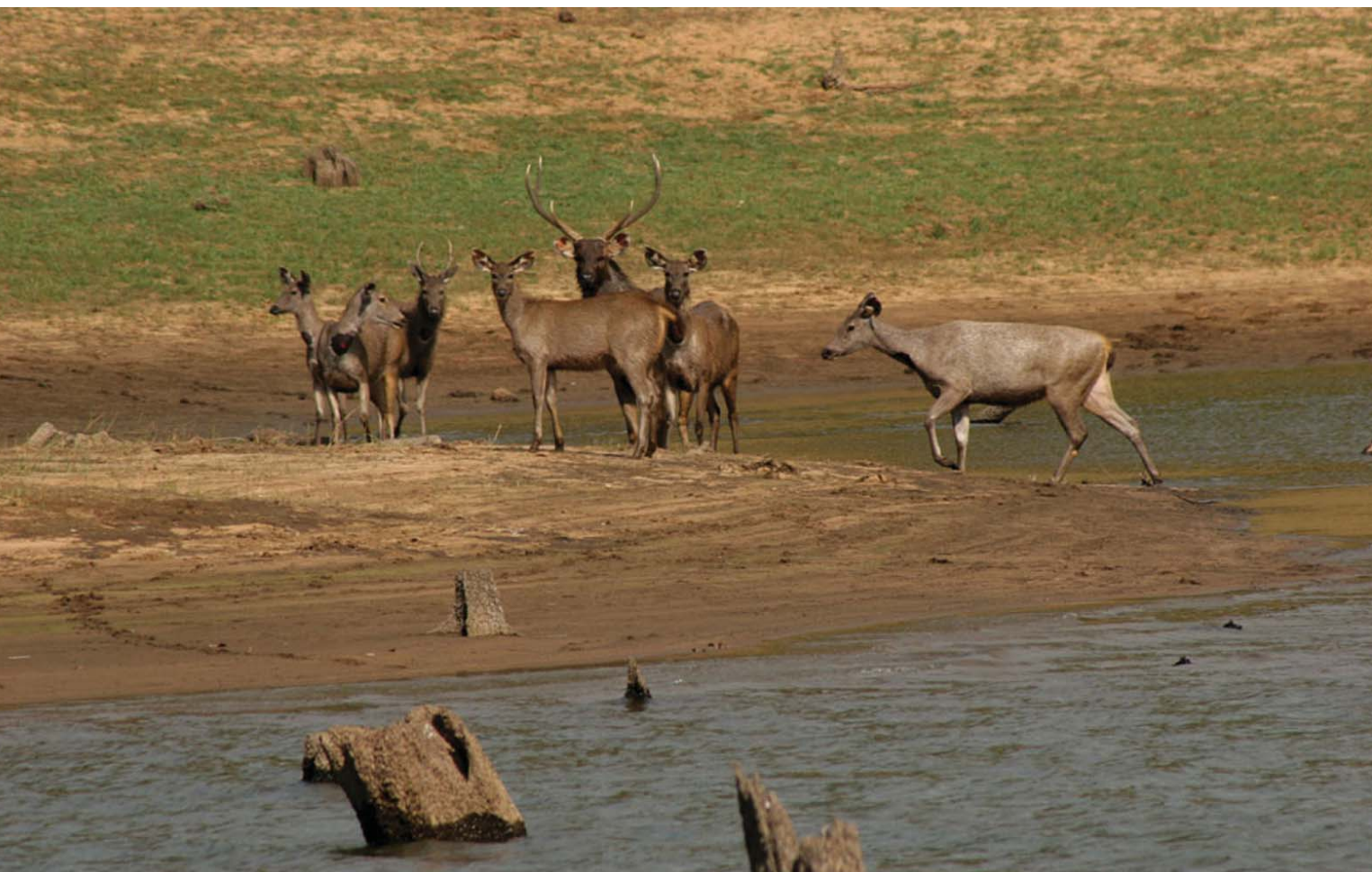
and Eravikulam National park are also in the process of organizing community based ecotourism initiatives now. It is surprising to note that except for Eravikulam National Park which is receiving about two lakh visitors per annum, none of the major sanctuaries are able to attract visitors even though they have similar landscapes like Periyar. The table below shows the number of visitors received by the other major Sanctuaries in the state.

The above figures show that the ecotourism potential is yet to be tapped in these major Sanctuaries and National Parks of the State. Introduction of community based tourism activities through the Eco Development Committees(EDCs) in these areas would help to increase revenues as well as in reducing pressure on Sanctuaries like Periyar. The formation of Periyar Foundation which is the apex body for facilitating the various initiatives has been found to be successful in providing the necessary financial and other technical support for the EDCs to organise and maintain the various activities has been found to be the culmination of the efforts made under the India Eco development Project. The same is being replicated in other Sanctuaries also.

Recommendations

Considering the importance of Ecotourism in the economy of the State, it is very much essential that the following aspects are taken care of while implementing the Ecotourism Projects in the Protected Areas of the State.

- There should be a master perspective plan prepared through participatory method involving all the stake holders concerned especially the local communities who have a direct stake in the well being of the Sanctuary.
- The institution for implementing the activities should be the community groups like EDC's



- Forest Department should take up the role of a regulator (both as a facilitator and controller) so that the committees are able to carry out the plans for the best interest of the people of the whole state. Semi autonomous bodies like Periyar Foundation be formed in all the Sanctuaries and National Parks for mobilising required technical as well as financial support for the implementation of the various activities. It is advisable to form a new company with share holding by the VSS's and EDC's of the state as well as the government in the model of the Jungle Resorts Ltd, Karnataka. This will facilitate providing professional expertise to the stake holders in managing the ecotourism activities in the National Parks and Sanctuaries.

- The Ecotourism Directorate shall co ordinate the ecotourism activities through the Wildlife Wing of the Kerala Forest Department. It should get the Master Plans prepared for the surrounding areas and towns with the help of respective foundations of the Sanctuary and National park.

- A strict Certification for Tourism Sustainability (CST) is to be done here for all the players in the Tourism Sector at the earliest. The proposed eco certification may also be made part of this certification. No agency shall be allowed to violate the sustainability criteria under any circumstances.

- The local bodies should be made to follow the strict guidelines while granting permission for various agencies in and around the National Parks and Sanctuaries for taking up tourism related activities. This should be made stricter in the ecologically sensitive High Ranges of the State.

- Ecological Impact Assessment be made a must for all tourism related projects and activities being taken up in the ecologically fragile areas in the state.

- Encourage Private Sector Participation either as a Public – Private Partnership or alone for developing infrastructure required observing all the norms for developing facilities for visiting tourists so that pressure could be taken away from the Sanctuaries and National Parks. This will benefit the Plantation Sector which is on the brink of closure by way of generating extra income apart from regular activities.

- Plantation Tourism be given necessary support as it can compliment



the efforts in the ecotourism activities being taken up in the National Parks and Sanctuaries

- An integrated Ecotourism Circuit be developed either as a stand alone product or as part of the general tourism package so as to attract high value tourists for generating more revenue to the state.

Conclusion

Ecotourism in Protected Areas is a very hot topic now a days as it can be a major tool towards generating valuable revenue and also for the conservation of the valuable Forest and Wildlife wealth of the Country. The Eco Development Committees of the local people can generate valuable income and at the same

reduce dependency on the National Parks and Sanctuaries for their day to day needs. The internalisation of the stakes in the Protected areas by the local people through the empowerment can work wonders as is being experienced in Periyar Tiger Reserve of Kerala. This social empowerment can lead to effective protection of the resources and also ensure the sustainable livelihood of the local communities. So Ecotourism can be regarded as God given opportunity to the State of Kerala for ensuring the rural livelihood as well as for conserving these valuable bio diversity hot spots for posterity.

■ The author is Secretary, Housing Board.



Photos: Dalu Parameswaran, I & PRD

Dr. K. Muraleedharan Menon

The world tourist industry today is one of the fastest growing sectors with estimated, receipts at over USD 2000 Billion. However, India's share in this big business is very meagre at a mere 0.38% of the world travellers and 0.66% of world tourism receipts. The National Tourism Policy 2002 has identified village tourism as the primary tourist product to spread tourism and socio-economic benefits to rural and new geographical areas. The planning commission's special group on 'targeting ten million employment opportunities over the Tenth plan period' has earmarked tourism as one of the major priority sectors for driving job creation in the country. Thus the joint Government of Indian – UNDP Endogenous Tourism Project seeks to promote local culture and craft based eco tourism for sustainable livelihoods and integrated rural development during the

Broaden Experience Endogenous Tourism





10th Five Year plan.

Endogenous tourism means travel, both domestic and international, not for pleasure alone but also for broadening the visitors' experience platform – where the source of attraction lies within the host community or environment. It attempts to transform attitudes and mindsets, imparting local pride and visitor appreciation of diverse culture, heritage and environment of the region.

Major objectives

- (1) Promotion of human development and gender equality.
- (2) Capacity building for decentralisation.
- (3) Poverty eradication and sustainable livelihoods.
- (4) Vulnerability reduction and environmental sustainability.

Government of India – UNDP has selected Kerala as one of the major centres of Endogenous Tourism Project. Out of 36 centres in India, Kerala has four centres. Kumbalangi, Kalady in Ernakulam District, Aranmula in Pathanamthitta District and Anakara in Idukki District. Aranmula is famous for the unique metal mirror (Aranmula Kannadi). The Vaastu Vidya Gurukulam offers formal courses in

Vaastu Tenets of architecture while local creative energy supports Kathakali. Aranmula Snake Boat Race is also very famous.

Kumbalangi is a serene small village surrounded by backwaters, in Ernakulam District. Prime occupations of the village folks are fishing, boat building, agriculture and carpentry. The endogenous tourism project shall enhance conservation, supplement local people's income, brings new use and value to heritage structures and aims at alternative model for sustainable development.

Spice Tourism Circuit at Kalady and Anakara is a unique endogenous tourism Venture. To visit the spice farms of Kerala is a thrilling experience for a tourist. Most the spices in Kerala are cultivated in Western Ghats. Kalady is famous for the nutmeg and turmeric. A tour from Cochin to Kalady, Munnar, Idukki and Madurai is really amazing. A traveller can experience fresh green spice gardens and wild life besides spicy cuisine and homestay accommodation. The spice tourism circuit in Kerala will win for it the same proud of Place which in the past was gained through spices in the world map of trade and travel.

The endogenous tourism project scheme is divided into two: Hardware programme and Software programme. Govt. of India provides the hardware fund (Rs. 50 lakhs per site) under the Rural Tourism Scheme. UNDP supports the software activities (Rs. 20 lakhs per site) under the Endogenous Tourism project.

80% of the software programmes have been implemented in the Kumbalangi. Awareness programmes and training programmes are progressing in Aranmula, Kalady and Anakara. A lot of tourists are visiting these areas. It is also a sort of participatory tourism programme. The tourists get the opportunity to involve in all activities of the regions.

The Endogenous Tourism Projects will facilitate capacity building, thereby enabling low income poor people create and articulate their skills from within. Eventually, it will focus on women, unemployed youth and disadvantaged groups. Endogenous Tourism projects are designed to minimise the negative impact of tourism and promote conservation and socio-economic development of the region.

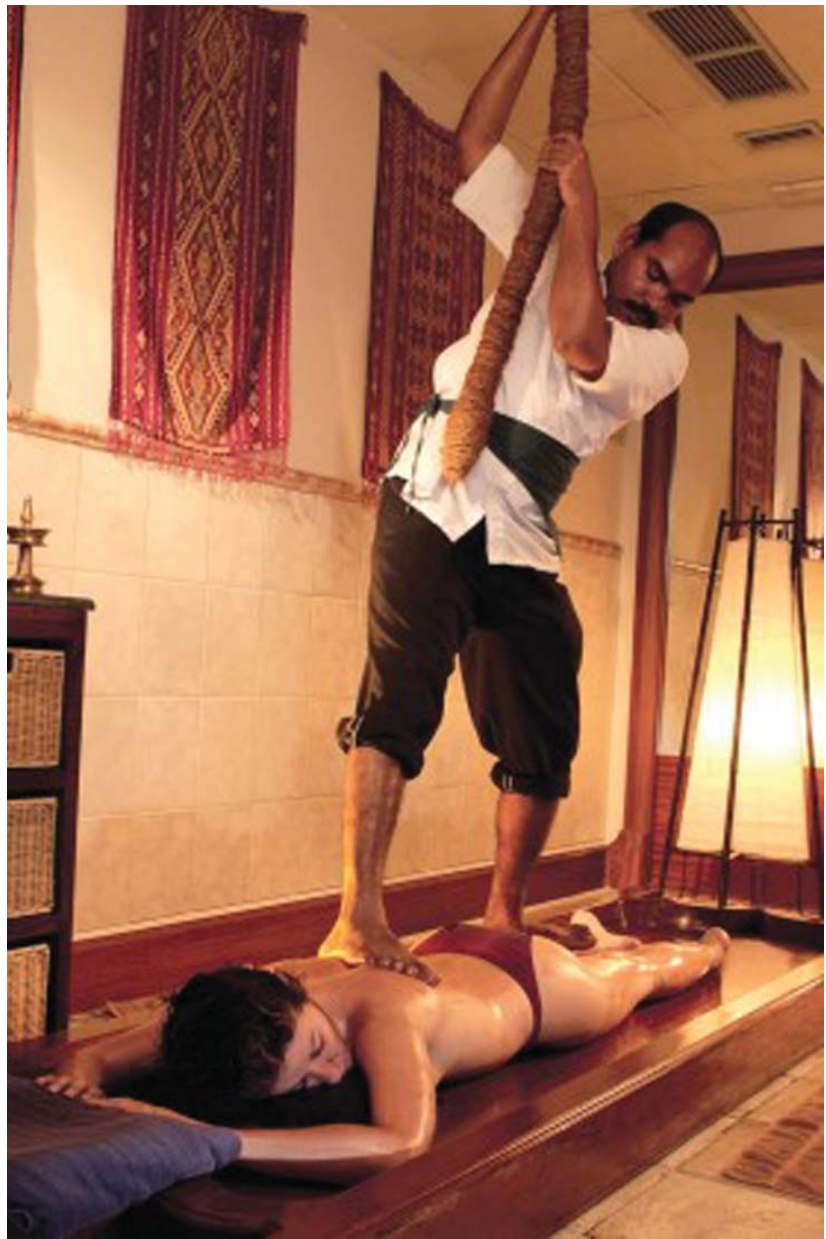
■ The author is a tourism consultant

Dr Robinet Jacob

Tourism, the world's most rapidly growing industry, is a unique activity in which floating and migratory populations play a vital role in the successful conduct of its various projects. World Tourism Organisation defines it, as 'tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business or other purposes'. A basic distinction among tourists can be made between domestic and international tourists. Tourists can also be classified by the purpose of visits too. This includes tourists travelling for leisure and recreation, business and professional journeys and other tourism purposes like study, health tourism etc.

A notable trend in global tourism has been the popularity of health care holidays. The tourism industry in India has been responsive and is making effort to cater to this ever-growing market based on ayurvedic therapy. Health tourism based on ayurvedic therapy is in the sphere of segmented and selective tourism and has become a craze among a particular section of tourists. Its potential has become obvious and both the trade and tourism promotion authorities in liaison with those in charge of the indigenous system of medicine are evolving some norms for dispensing this therapy so that, it leads to diversification and enrichment of the tourism product. The business potential of health holidays is indicated in the survey conducted by the French Accor group which shows that at least 20 percent of Europeans are looking for more active, health oriented holidays and would like to find some kind of health and fitness facilities integrated in their holiday resorts or even take their holidays in a dedicated health resort.

Health holidays based on ayurvedic therapy is popular in Kerala. Public and private sector operators are in the field of



A notable trend in global tourism is the popularity of health care holidays. The tourism industry in India has been responsive and is making efforts to cater to this ever-growing market based on ayurvedic therapy. Health tourism based on ayurvedic therapy is in the sphere of segmented and selective tourism and has become a craze among a particular section of tourists.

Rejuvenate and

offering ayurvedic therapy to the fitness enthusiasts in the form of packages. Kerala has a fairly ancient ayurvedic medicinal system, which is a treasure house of knowledge about natural medicine. Kerala has sensed the potential for fitness holiday packages and is trying to tap this market.

Various Medicinal systems and Ayurveda

Man has evolved several methods for curing illness ever since the rise of human history. Different civilizations and societies have looked for different ways of curing diseases and thus gave shape to their own medicinal systems, which reflected their social beliefs, practices and way of life. Virtually every civilization has a system of indigenous medicine. The World Health Organisation (WHO) sponsored meeting at Brozzaville in 1976 has defined traditional medicine as *"the sum total of all knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observations handed down from generation to generation, verbally or in writing"*.

The need for curing diseases has resulted in the development of medicinal systems like Ayurveda, Siddha etc. in India, Chinese medicine in China, Greek medicine in Greece and Unani in Middle East. Due to the influence of the medicinal systems like Unani, Siddha and Ayurveda among the general public, the Indian Government is considering them as indigenous medical systems. The period of origin of Ayurveda is considered to be around 6000 B.C. The exact period of its origin is in the mists of antiquity. Even though references to the various principles of medicine are found in most of the Vedas, the main body of Ayurveda is found in the fourth Veda—the Atharva Veda. However even though Ayurveda is part of the Atharva Veda, it is also recognized as an Upa or supplementary Veda in its own right.

Unlike allopathic and most other systems of medicine where treatment follows the curative method, Ayurveda

follows the preventive method. In taking a preventive medicine approach to treatment, a lot of importance is given to life styles of the people. The philosophy of Ayurveda takes a holistic view of health, emphasizing a balanced diet; physical fitness, healthy life style, hygiene and body care for disease-free, long and healthy life. The specialty of Ayurvedic treatment of Kerala is that it prolongs the span of life as well as refreshes and rejuvenates the vital organs of the human body. Ayurveda focuses on therapeutic and rejuvenating aspects.

In ancient India, Ayurveda was practiced as a system of medicine. During the period of Lord Buddha and

a serious damage to the credibility of Ayurveda among the common people. This stayed for centuries till long after the British colonialists had left India. Ayurveda is on the path of revival as a result of the initiatives taken by the Central and State Governments.

Ayurvedic resources and facilities

The contributions of Kerala in the field of ayurveda are unique. Ayurveda developed in Kerala with more dedication than other parts of the country. Kerala's ayurvedic system is not fundamentally different from the main stream. Along with *Charaka Samhitha* and *Sushruta Samhita*, *Ashtanga Hridaya*



afterwards while Buddhism was finding its way to the other parts of the world, Ayurveda also made inroads into these countries and became a global system of medicine. Ayurveda suffered a setback under the onslaught of the British colonial rulers. The British perceived it as a threat and tried to destroy it by legalizing its practice by anyone who chose to do it. This led to the mushrooming of dubious Ayurvedic practitioners all over the country and to

and *Ashtanga Sangraha* written by *Vagbhata* are used by the proponents of ayurveda in Kerala. But, a number of treatment methods, which cannot be seen in the Samhitas, were developed and followed in Kerala. Various types of ayurvedic treatments designed in Kerala have enriched ayurveda as a system of medicine.

Panchakarma Treatment

The ayurvedic rejuvenating treatment widely practiced today is called

Return Healthy

Panchakarma. This five-fold treatment is designed for *shodhana*, the eradication of the cause of the disease. *Panchakarma* has only been used for the elimination of the disease-causing toxins but also to replenish the body tissues with nourishment. So it is often termed as rejuvenation therapy. The proponents of ayurveda in Kerala developed and offered *Panchakarma* treatment and other allied treatment procedures with utmost dedication than any other part of India.

A number of treatment methods which cannot be seen in the basic sanskrit Samhitas and Ashtangahridhya are followed in Kerala. These are available in a book named 'Sahasrayogam'. Certain Ayurvedic tablets like 'Gorochanadi', 'Kombanjadi', 'Dhanwantaram', 'Kasthuryadi', etc. are used in Kerala only. 'Ilaneerkuzhambu,' a medicine based on coconut is used for eye diseases. Coconut, coconut oil and other coconut products, which are plenty in Kerala, is an unavoidable part of Kerala's ayurvedic medicines and oils. Glandular secretions of certain animals like civet are also used due to its medicinal properties. Dhara, Pizhichil, Njavarakizhi, Thalam, etc. and its numerous types are Kerala's traditional ayurvedic treatment methods. Other treatments include Shirovasti, Uttaravasti, Udvarthanam, Snehanam, Abhyanga, Kizhi, Greeva Bandhanam, Lepam etc. Kerala has offered a lot to Ayurveda by introducing its own effective treatment methods and drugs in dealing with diseases related to Vishachikitsa (toxicology), Balachikitsa (Paediatrics & Gynaecology), and Salakyachikitsa (ENT & Cephalic diseases).

The ordinary generic medicines are manufactured using 440 types of herbs. This can be collected from around 380 types of plant species of which 200-250 are available in Kerala. This helps development of ayurveda in Kerala. Use of ayurvedic herbs in big volumes has opened up new opportunities in the area of its cultivation.

Ayurveda and Tourism

Kerala has sensed the potential for health holidays based on its centuries old medicinal system, ayurveda. Holidaying

for fitness has struck its roots in Kerala. A number of hotels and resorts along with hospitals are offering this treatment. The market for these types of packages is mainly from Europe and North America. The ayurvedic procedures are used for curing diseases like insomnia, rheumatism, joint pains, paralysis, hemiplegia, arthritis, nervous disorders, headaches etc. as well as for eradicating diseased conditions. Some treatments are meant for rejuvenation while others are used for curing diseases. A study by the author revealed that 78.9% of the tourists are visiting ayurvedic centres for



rejuvenation while 15.8% are for cure from diseases.

Various forms of ayurvedic treatments are offered to the customers, whose duration will also vary according to the nature of treatment. Kerala's equable climate, natural abundance of forests with a wealth of herbs and medical plants are a key to the success of ayurvedic treatments of Kerala. The treatment is offered during monsoon when the atmosphere remains dust free and cool, opening the pores of the body to the maximum, making it most receptive to ayurvedic herbal oils and therapy.

The climate in Kerala is tropical and the temperature varies from 18°C to 35°C, which is most suitable for

ayurvedic treatments. The tourist season in Kerala is from October to March. But ayurvedic treatments are mainly offered during monsoon months of June, July and August. With the introduction of ayurveda as a tourism product, tourism activity has become a round the year activity. To ensure quality and uniformity of ayurvedic practices and to avoid misuse, the Kerala Government has brought a scheme for the approval of Ayurveda centres. These centres are classified in to *Green Leaf and Olive Leaf* categories.

There is an experimental proof that thirty percent of tourist arrivals to Kerala are for health holidays. Its development has created a multiplier effect on economic growth in different destinations by offering employment opportunities to skilled and non-skilled people in the society. The ayurvedic centres lead to direct employment generation as each unit has a minimum of one doctor, four masseurs and seven to nine staff members. Some of the centres have opened overseas centres too resulting in the creation of employment opportunities. Many of Ayurvedic tourism development have helped protection of Kerala's architecture too. Many of the old houses and mansions constructed in Kerala style ie; the "*Nalukettu*" and "*Ettukettu*" were refurbished to start ayurvedic centres.

The new tourists who seeks adventure and the unknown including different culture, cuisine, lifestyle, health systems etc has popularised the Ayurvedic health holidays of Kerala all over the world. *Ayurveda*, the system of indigenous medicine is in a critical growth stage. Haphazard development and unethical practices will result in the unnatural death of this new emerging trend in tourism development. Introduction of *ayurveda* as a tourist product has resulted in the vertical growth of income in the last decade. Opening up of this indigenous system of medicine cautiously and properly will result in all round socio-economic development of Kerala.

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**K.P. Rajendran**

Minister for Revenue

Reports say that a farmer is committing suicide in every eight hours in our country. Three farmer suicides a day!!! The drought or flood havocs occurred in the last century did not guide the farmers to the suicide. But consequent on the introduction of neo-liberal schemes adopted by the Government of India in 1990s farmers knock down to death. Death toll of farmers across the country is increasing day by day. The only way out to circumvent the circumstance is to formulate policies to protect the farming sector from the crisis generated by the Central Government; but they turned a deaf ear to the scream of farmers. The consequences are so cruel. Thousands of farmers ultimately decided to end their life.

Most of the suicides were committed by the small or marginal farmers. They used to depend on the private moneylenders or big wigs who are so powerful and not fear of government's punitive measures, or private banks. They realise exorbitant rate of interest and insist on the mortgage deed of the small household or landed property. When he could not repay the principal and interest due to serious crop failure or low prices for his produce, the private moneylender or the bank recovery officer seizes everything that belongs to the farmer. No law comes forward to protect him and the farmer lost his belief in the social security system. He is convinced that he became a bankrupt and he will not be able to support his children he finds no other alternative but to commit suicide. Had there a mechanism to interfere miserable state of affairs of a farmer, he would not have committed suicide. The Government of Kerala has been thinking about such a system since

Kerala is the state known for its valuable insight and a role model for other states. It is the first state in India where significant land reforms are introduced.

Relief for Farmers

it came into power in May 2006. Kerala Farmers Debt Relief Commission Bill, now being considered by the State Legislature, is the result of such thinking.

A retired High Court Judge shall be the Chairperson of the Commission. The Commission shall consist of a farmer, an agricultural economist, and a person nominated from the co-operative sector and a member from each district, who shall eligible to exercise the powers and perform functions as a member only in respect of matters relating to his district. All farmers whose principal livelihood is agriculture and who hold whether as an

Kerala is a place from where lessons can be learned from experience to those who want to work to make their lives better. The Kerala model thus continues to benefit people, especially the farmers and the downtrodden of the society.

owner, licensee or mortgagee, an extent of land up to two hectares and whose annual income do not exceed rupees fifty thousand including agricultural labourers will fall under the ambit of the Bill. The relief granted to a farmer by way of waiver of principal, interest and penal interest shall be a maximum of rupees one lakh or fifty per cent of debt amount whichever is less. Creditor includes any person engaged in lending money whether under a license or not, including co-operative societies and co-operative banks.

The Commission has elaborate powers such as to adjudicate disputes between farmers, debtors and creditors and to pass awards that shall be binding on both parties; to enter into negotiations

with the creditors for loan waiver, interest relief, loan rescheduling or loan moratorium to farmers of distressed areas; to determine the extent and manner in which the relief should be provided to the farmers; to declare districts or part of district as distress affected area, to fix a fair rate of interest as it may consider just and reasonable, to keep the repayment of loan in abeyance until such time as the Commission may declare, to provide necessary facilities for one time settlement of loans, to reschedule loans into medium term or long term loans etc. The Commission shall have powers of a Civil Court while trying a suit under the Code of Civil Procedure. The Commission should hold its sittings at such places and respective district or districts declared as distress affected areas to consider the matter relating to affected areas. Yet another feature of the Bill is that the Commission can invite MPs, MLAs and other representatives of people as observers to attend its proceedings.

Kerala is the state known for its valuable insight and a role model for other states. It is the first state in India where significant land reforms are introduced. It has achieved high literacy, long life expectancy, high access to medical care etc. Its effective public food distribution, pensions for agricultural labourers and a high rate of government employment for members of formerly low caste communities are some of the widely appreciated reforms. Kerala is a place from where lessons can be learned from experience to those who want to work to make their lives better. The Kerala model thus continues to benefit people, especially the farmers and the downtrodden of the society. The Kerala Farmers Debt Relief Commission Bill will be enacted this year itself. Undoubtedly, this Bill, when enacted will be a model for the entire country and indeed a step forward for a permanent revolution in thought and action. ■

Saga of Forts

Dr S. Hemachandran

Kasaragod, the land of forts has got excellent liaison with Karnataka ethos. This northernmost district of Kerala was famous from time immemorial. The Arab travellers who came to Kerala between 9th and 14th century called this area 'Harkwilla.' Kasaragod was part of Kumbala kingdom in which there were 64 Tulu Malayalam villages. When Vijayanagara Empire attacked Kasaragod it was under the suzerainty of Kolathiri Kings. Ikkeri Nayaks, a line of feudatory chieftains rose to power after the decline of the vigorous Vijayanagara Kingdom following the battle of Thalikkottai in 1565. In 1645 Sivappa Nayak took reigns and shifted the capital to Bednoor. Chandragiri and Bekal forts are considered to be part of a sequence of forts built by Sivappa Nayak for the safeguard of the kingdom. Viswappa Nayak and his heirs constructed forts at Bandadka, Kandamkuzhy, Powal, Kumbala (Arikkadi), Kasaragod and Hozdurg. Unlike most other Kerala forts, these strongholds were not a centre of administration but a defence contrivance to keep the raiders away.

The most northerly fort in this district is the Bandadka fort and its counterpart in the south is the fort at Hozdurg (New Fort) constructed by Somasekhara Nayak. The Kandamkuzhy fort is the smallest one built mainly to shield the *Panchalingeswara* temple. The Kasaragod fort is located in the middle of Kasaragod town, near the Hanuman temple.

Bekal Fort

This three century old marvel is one of the largest best preserved forts in India.

This splendid circular structure of

laterite sites rises 130 ft above the sea level and stands on a 35 acre headland that runs in the Arabian Sea. There is a watchtower in the centre of the fort. The holes on the outer wall of the fort are so remarkable that they are specially designed to defend the fort effectively. Bekal fell in to the hands of Haider Ali and later came under the control of his son Tipu Sulthan. An old mosque is situated very near the fort is believed to have been built by Tipu. There is a Hanuman temple at the entrance of the fort. The moat around the fort has now become extinct except on one side. Once the entrance to the fort was only through a portable wooden bridge. This fort is a conspicuous evidence of mediaeval technology of defence strategy. Now the fort is being administered by the Archaeological Survey of India.

Powal Fort

This fortress forms a quadrangle with eight round bastions, ramparts, battlements and deep moat with solitary entrance. The fort was built with laterite boulders using sand and clay as binding medium. There is no watchtower adjunct to it. Apart from the other building there subsists a small Hanuman temple inside the fort. There are holes in the rampart for placing guns. The fort walls and ditch were in ill preserved state with shrubs and trees growing all over. The people live in the proximity to the fort walked off with stones that had fallen down. The department of Archaeology scientifically conserved the entire fort in 2006. The department also conducted a methodical excavation and unearthed the basement of the old barracks and other structures.

Chandragiri Fort

Chandragiri fort stands elegantly on the banks of Chandragiri river that marked the traditional boundary between Kerala and Thuluva kingdom. It was built with hard laterite stone. There are eight round bastions with cannon holes through which the sea route can be clearly perceived. There is a deep trench on the three sides of the fort. A pond with the flight of steps augments the grace of the fort.

The scientific excavation inside the fort has brought to light many antiquities like cannon balls of iron and stone, earthen wares, and iron implements. The entrance portion of an underground passage to the outskirts of the hill is also encountered on the north-eastern corner of the fort. This stronghold spreads over an area of 7.76 acres is now in the list of unsurpassed monuments nurtured by the department of archaeology.

Most of the erstwhile strongholds in the Kasaragod district are in ruin, while others still stand tall, but all reverberate the cracks of cannonade and speak of a scintillating time gone by gallantry, intrigue, glory, guile, romance and grandeur.

The writer is Director in-charge, Dept of Archaeology, Govt of Kerala.





Malabar's Spring Festival

Poorakkali of North Malabar

Prof A.K. Nambiar

Pooram is generally known as the eleventh lunar asterism. In South Malabar and Thrissur, Pooram has another meaning i.e., festival. Vela and Pooram are the synonyms of festival in these regions. Thrissur Pooram is the name of an important festival of Kerala, widely known for its exchanges of colourful umbrellas and also for the fire-works. In North Malabar, (the erstwhile Kolathunadu), Poorolsavam (Pooram) is a spring festival, observed by women and girls for fertility. The girls and virgins observe pooram for getting appropriate husbands to them. Married women perform their ritual for the longevity of their husbands. This is exactly the parallel of Thiruvathira, which is prevalent in the districts from Kozhikode to Thiruvananthapuram.

Both festivals are celebrated to appease Lord Shiva for the rebirth of Kamadeva (Cupid). According to some of the songs of Thiruvathira, Shiva was born in the star of Thiruvathira of the Malayalam month. Parvathy, wife of Siva, been observed this day as now ritual:

“Dhanumasathil Thiruvathira
Bhagavan thante thirunalanu
Bhagavathikku Thirunoyambu”

[In the austerism Thiruvathira falls in Dhanu (Malayalam month) . Bhagavathi (Parvathi) is observing Thirunoyambu (auspicious vow ritual)]

After the demise of Kama, 18 virgins of Devaloka prepared the idol of Kama

and decorated with flowers. They danced in round with varied songs and foot works. This is the myth of Pooram. Poorakkali, the dance-drama of Pooram originated out of the above said myths. The purpose of both rituals is same. But the rituals, songs and dances are entirely different.

Poorakkali is a ritual performing art performed by men in the premises of Poomalakkavu (Bhagavathi Shrines) and other kavus during pooram festival. There is every possibility to believe that Poorakkali was performed by the women in older times. The myth of Poorakkali that women danced in round for the rebirth of Kamadeva, also justified this. In all respects, Pooram is a fertility ritual. Poovidal (setting of flowers), watering rituals, Pooramtheli (making auspicious sounds by women), preparation of Kam vighrahas (making the idols), decorating Kama with flowers and similar objects, Poovada chudal (cooking the ada – sweet cake made of rice powder, grated coconut and jaggery, covered with green leaves), cooling of Poorakkanji (raw rice prepared with grated coconut), send off ritual of Kama, are some of the important items performed exclusively by women. In that way, Poorakkali also might have been played by women only. In course of time because of male domination happened in all walks of life, Poorakkali also might have become the performing art of men.

Generally speaking, Poorakkali has two domains: Pooramala and Marathukali. The first one is the

performances of eighteen, Nirams (colours. Here the meaning is seems). They dance with singing 18 songs composed in 18 ragas like Aahari, Malavi Malahari, Poovali (Bhupali), Saindhavi, Poornabari, Kshetrahari, Vanahari, Kanakahari, Madhyamahari etc. with different styles of choreography. Marathukali is a competitive event in which two renowned scholars known as Panickers confront in Kavya, Sastra, Alankara, Vritta, Logic, root, rasa, dwani etc. This is a one scholarly test between to Panickers. Panickar recites a sloka and asks the opponent some pertinent questions with regard to the meaning, the metre, the root etc. In the same manner the other Panickar also asks similar questions. To avoid confusion of the actual meaning, a reputed scholar of Sanskrit will be invited to mediate and sometimes the actual answer will be declared by him. The dance of Yogi (Yogiyattam) is a spectacular item of Marattukali, which consists of various sub scenes. The yogi must be able to answer in the particular language of the place where he might have visited.

Ankam, choyal, pada, pampattam, shaivakkoothu, sakthikkoothu, yogi, andee, pallu are some of the items of Poorakkali. Vandana (Salutation), Ganapathi, Saraswathi, Ramayanam, Bharatham, Polichupadal etc. are some of the times of Poorakkali. This festival is still prevalent in North Malabar. This is the period of spring in which all the beautiful flowers blossom.

■ The writer is Secretary, Kerala Folklore Academy, Kannur.

SIDCO Resurrects



Minister for Industries Elamaram Kareem addresses in a function organised to sign MoU with ITI.

Saji B

Kerala Small Industries Development Corporation Ltd (Kerala SIDCO,) set up in November 1975 for the promotion of Small Scale Industries in the State, is a pioneer organisation wholly owned by the Government of Kerala. The authorised capital and the paid-up capital amounts to Rs 13 crores and Rs 12.44 crores respectively.

SIDCO owns 300 acres of land comprising of 17 major Industrial Estates, 36 Mini Industrial Estates and 10 Industrial Parks all over Kerala for providing Industrial Plots and sheds with infrastructural facilities to the entrepreneurs for setting up various concerns. At present, over 700 entrepreneurs are utilising this facility.

The 14 district level Sales Emporia/Marketing Centres provide marketing

support to the Small scale industrialists by collecting various products from them such as wooden / steel furniture, computer furniture, electrical / electronic items and supplying them to Government Departments/Agencies and other institutions. The total turnover and profit of this division during 2005-06 was Rs 19.19 crores and Rs 1.03 crores respectively. The expected turnover and profit for 2006-07 are Rs.17 crores and Rs.70 lakhs respectively.

There are eight production units under SIDCO. These units undertake manufacture of Wooden/Steel/Computer/Hospital furniture and execute interior decoration/furnishing. Total turnover for 2005-06 and 2006-07 is Rs 287.74 lakhs and Rs 459.90 lakhs respectively.

The Construction Division functioning under SIDCO undertakes civil construction works of various

Government Departments/Agencies and Local Governments. At present the division is carrying out various works under Pilgrimage Tourism scheme of the Tourism Department. The turnover in 2005-06 was Rs 200 lakhs. In 2006-07, it is Rs 250 lakhs. Work orders already obtained, but not yet started comes to the tune of Rs 20 crores.

Telecom City

As part of diversification of activities, SIDCO has signed MoU with Indian Telephone Industries, Bangalore to become its Business Partner in Kerala to set up a Telecom City in Thiruvananthapuram. The total investment for this project would come to Rs 300 crores. The Government has already agreed to provide 25 acres of land at Kazhakoottam near Thiruvananthapuram for setting up the Telecom City. Many Indian Industrial groups in India and abroad have come forward to invest in this

project. Once the telecom city comes in full swing it can create job opportunities for about 6000 persons.

MoU signed with ITI Bangalore also aims at a major venture in the field of modernisation of office management in various Government Departments through Office automation, e-Governance, Smart cards developments, State wide area net-work, State-of-the-art telecommunication and communication Park, Micro Documentation etc. A new division namely Information Technology and Tele communication has been formed exclusively for this purpose.

Project at Kadavanthra

A project of Rs 180 crores on BOT basis is now on the anvil. A multi-storeyed commercial industrial complex in SIDCO's own land at Kadavanthra, Kochi will be built soon. The final picture of the project will be clear shortly after various levels of negotiations/discussion with interested parties for which a global tender (Expression of Interest) has been invited.

Considering the export-import bottlenecks experienced by the small scale industrialists in the State, SIDCO has recently formed a new division called 'Import and Export Division' at Ernakulam to impart assistance to them for importing raw materials and to find foreign markets for their products.

In the new industrial climate of the State, SIDCO could gather a fresh zest and zeal to open new vista in developments and pave the way for a new orientation contributing much to its confidence in scaling up to new levels.

■ The writer is Managing Director, Kerala SIDCO.

A flower, like Rooster's Comb

Kozhippoovu

Suresh Muthukulam

The small, waxy, fanlike flower-head of a rooster (cock) is unique in any garden – that is cockscomb or celosia, which is an annual flowering plant of tropical origin. The plant often grows well in both humid and arid conditions upto 1-2 ft height. The leaves are either green bronze or maroon depending upon the variety. Celosias are one of the most eye-catching annuals, to grow in the garden.

The name 'Celosia' is derived from the Greek word "Kelos" meaning 'burn' which aptly describes the look of celosia, that bear a resemblance to licks of flames erupting from the stems.

There are mainly two groups of celosia; the 'plumosa' (feather) and 'cristata' (cockscomb). Celosia flowers can last for upto eight weeks. A high number of seeds are produced by each flower. Flowers are usually red, yellow, pink, purple or orange, though other colours can also be present. In some instances, a variety of colours are present in hybrids.

Celosias are propagated from seed. The very small seeds are germinated in a tray of light potting mixture and they germinate within 10 to 15 days. Once the seeds have germinated, move the plants into the light. When the plants have two sets of true leaves, pinch out the unhealthy ones leaving behind the strongest looking plants.

Which purchasing the plant from nurseries or garden centres, select healthy, well-coloured leaves. Celosias usually thrive well in rich, drained garden soil.

A forest of colours can be created by planting celosias in a pot also. The seeds are sown like 12 seeds for a 6-8 inch pot, 14 seeds for a 10-12 inch pot. Within 8-10 weeks, the plants will flower. Unhealthy plants can be thinned out. For containers, choose varieties that grow less than two feet tall such as castle-pink, prestige, scarlet, coral garden etc. For ground planting large cocks combs such as 'Red Velvet' that grows to 30 inches high with velvety crimson heads. Here the flowers are so large that they make the plant to heavy, requiring staking.

Celosias are good as fresh or dried flower. Cut the flower early in the day, when they're fully developed. For dried arrangements, remove all the leaves from the stems and wrap a rubber band around 6-8 stems and hang them upside down in a dark, cool, dry, airy space for several weeks or until fully dried. They will last in dried arrangements for at least six months without losing their vibrancy and can be sold as everlasting cut flowers.





Deepak M

Drooling Tastes

Mango Products

Indu Narayan

The mango is said to have originated in Burma, Malaya or the Himalaya regions of India. This fruit is available from May to September, the peak month being June. Mangoes are best eaten as a fresh fruit.

The nutrients in one pound of mango contains 2.1 gm protein, 0.6 gm fat, 51.6 gm carbohydrates, 27 mg calcium, 39 mg phosphorous, 0.6 mg iron and 106 mg ascorbic acid. It has 198 calories.

Following are certain recipes with mango in three stages viz. *Kannimanga* (mango in the early stage of growth), ripen mango and *uppumanga* (mango put in salt water for certain period).

1. *Kannimanga* pickle (Tender mango pickle)

Ingredients

- One kg tender mango taken from the salt water
- $\frac{3}{4}$ cup red chilli powder
- One cup roasted mustard, skin removed and then powdered
- 1 teaspoon fenugreek seeds, broiled

and then powdered
 $\frac{1}{2}$ teaspoon asafoetida, fried in oil and powdered

Method

Soak all the masala powders in $\frac{1}{2}$ cup of salt water taken from the pickled mangoes and grind the ingredients finely without using water. Use only the salt water from the pickle. Strain some salt water from the pickle. Mix the ground masala with it and pour into a jar. Put one kg of pickled mango also in it. The liquid should cover the mangoes. Close the jar tightly and seal with wax, tie with muslin cloth. The jar should be airtight. Use after a few days.

2. Ripe mango *pachadi* (*pazhamanga pachadi*)

- 4 big mangoes (ripe)
- One teaspoon turmeric powder
- One cup curd
- Salt to taste

To grind

- One and half cup crated coconut
- One and half teaspoon red chilli powder

$\frac{1}{4}$ teaspoon mustard seeds

To fry

- $\frac{1}{4}$ teaspoon each of mustard seeds and fenugreek seeds
- One teaspoon oil
- One dry red chilli
- A sprig of curry leaves

Method

Cut mango into six pieces and take the seed also for curry. Add salt, turmeric powder and enough water to get it cooked.

Grind coconut, red chilli powder and mustard seeds well and add to the cooked item. Fry red chilli, curry leaf, mustard seeds and fenugreek seeds and when mustard seeds splutter, pour curry to this adding curd. Off the gas when it starts boiling.

3. *Uppumanga* chutney

- Two cups crated coconut
- Four small onions
- One and half teaspoon red chilli powder
- a sprig of curry leaves
- Salt – if required (ready salt is added in mango)
- Grind all these well and serve with rice or *kanji*.

Radiation Hazards

The history of gamma radiation source - radium-coming into the treatment of cancer is quite fascinating. The scientist Henry Becquerel who borrowed a sample of radium from Madam Curie carried it in his vest pocket together with his watch and several pencil stubs. A few days later he found himself unconsciously scratching the skin of his upper abdomen. There was a growing sensation of itching and burning and he wanted to investigate the source of annoyance.



K.T. Thomas Kannampallil

The radiation hazards on human beings- the destruction of the living cells- was known immediately after the indiscriminate use of X-rays in earlier days. Later in 1898 when radium was discovered, it was noted that it was also a source of powerful type of radiation similar to X-rays called gamma rays. Following the fact that gamma rays can also damage or permanently destroy the human tissue like X-rays, it began to be in the main stream of the treatment of the malignant disease - cancer.

However, the history of gamma radiation source - radium-coming into the treatment of cancer is quite fascinating. The scientist Henry Becquerel who borrowed a sample of radium from Madam Curie carried it in his vest pocket together with his watch and several pencil stubs. A few days later he found himself unconsciously scratching the skin of his upper abdomen. There was a growing sensation of itching and burning and he wanted to investigate the source of annoyance.

As soon as the area was exposed his eyes he was surprised to realise that there was a patch of red and blistered skin like a superficial burn. During his next visit to the Curies they discussed the incident, elaborating on the possible use of their new element in the treatment of human diseases like X-rays since a biological action of radium was now obvious to him. Curie intentionally produced a similar burn on his arm.

These two observations, one accidental and other experimental, initiated the study of the possibility of using radium in the treatment of diseases and should be considered the birth of Radium for therapy i.e. gamma rays for cancer treatment. Thus the use of radium for cancer came as a brain wave flashed into the latent minds of its discoverers only three years after its discovery.

Following the period of over enthusiasm, the radium was tried for the treatment of a myriad of disease and even for cosmetic purposes like removing female moustache!

Several physicists and physicians were over exposed to radium powder during their treatment to cancer patients and later on they themselves became the radium sources. What for the tomb of Marie Curie can be detected even now with a Geiger Muller Counter!

The untold properties of radium at that time add miseries and afflictions to much of the cancer patients treated with radium since there was no exact system to measure the radiation doses and its limits. So many of the cancer patients died of painful radium burn rather than due to the disease itself that the use of radium was about to abandon at one time.

Later experiments revealed the core of another radiation hazard i.e. the incidence of almost all types of cancers among those who handled radiation.

One of the first observations of cancer following the radiation was the appearance of skin cancer on the hands of the early workers that time many systematic studies on animals have shown that radiation causes an increase in the incidence of almost all type of naturally occurring cancers. This has been further exemplified by the atom-bomb survivors (Hiroshima, and Nagasaki), people in the vicinity of the nuclear explosion test sites (Marshall Islanders) and other radioactive fall-out like watch dial painters, uranium miners, early nuclear physicists, physicians etc.

At Hiroshima and Nagasaki where the atom-bombs fell in 1945, most of the casualties were due to the blast and fire, but 15-20 percent were from gamma and neutron radiation. The radiation doses have been estimated and the survivors were carefully followed up and observed. The effective range for serious injury from radiation was about one mile compared with the three miles for flash-burns and five miles for indirect blast effects. Whole body exposure to large doses of radiation caused severe and fatal illness within few hours or weeks. The survivors were liable to die some years later from fatal anaemia or leukaemia (blood cancer). Other reactions included skin-burn, sterility, cataract etc.

A special hazard involved pregnant woman, abortions and still births were brought about. If the child in the womb survived, its brain development was liable to be retarded and the child might be born with an abnormally small head and mental deficiency.

Another carcinogenic incident of radiation was found among the girls engaged in a luminous dial watch factory in New Jersey (USA) in painting watch dials with luminous paint. The paint contained small quantities of radium and thorium and they used to point the brushes in between their lips when its tip got flattened, thereby leaving traces of the paint in their mouths. This was unconsciously swallowed absorbed and

deposited chiefly in their bones. In some cases the bonemarrow was destroyed and the victims died of a plastic anaemia or leukaemia and in some other cases due to bone cancer. Fatal results followed when as little as a few microgram (thousandth's of a milligram) of radium was permanently deposited in the body.

In all these the induction of fatal cancer is regarded as the most significant risk of radiation to man.

Other episodes have been unintentional exposure in Marshall Islands in the Pacific in 1954 in the course of the atom bomb testing, affecting nearly 300 people over a dozen accidents involving high exposure of radiation in

are genetic damages, the induction of cancer, cataract of the lens of the eye and late radiation fibrosis and blood vessel damage. In all these the latent period before the appearance of the cancer will vary with the type of cancer and may be as short as 2-3 years for leukaemia or might be more than 20 years for skin and lung cancer.

In a nutshell the effect of radiation on human beings can be divided into two classes: one is somatic effects that relate to injuries to cells which are concerned with the maintenance of body functions such as cells in the blood and bone-marrow. These effects are manifested in the life-time of the

In all these the latent period before the appearance of the cancer will vary with the type of cancer and may be as short as 2-3 years for leukaemia or might be more than 20 years for skin and lung cancer.



industrial plants, Nuclear physics laboratories and cancer hospitals. All these and other experimental work have given us a detailed picture of the effects and mechanisms of acute radiation damage.

The radiation lowers the immune mechanism, which pave way for the bacterial infection. The other radiation risk is to suffer premature ageing later and increased risk of cataract (eye lens become opaque), leukaemia, amenorrhoea, sterility etc. Besides these lethal effects of radiation, there are more subtle, insidious form of injury known as late or delayed effects which do not appear till long after the radiation. The principal late effects

individual. The other one is the genetic effect which relates to the cells in the gonad (sex glands -testes and ovaries), which are responsible for the propagation of the genetic characteristics to subsequent generations. For eg: the children from the women surviving the atom-bombs in Japan showed an average shorter and lighter build and have smaller heads indicating an under-developed brain. Some showed severe mental deficiencies while others were unable to speak normally even at the age of five.

Genetic damages obviously do not affect the irradiated person, they only affect some future generations. So increasing the genetic damages



undoubtedly increase the risk of producing such physical or mental weakness in future generations so that it is vital that there should be no unnecessary irradiation of the gonads. Hence gonadal shield should be used to protect it while X-raying or irradiating the lower portions of the body.

It is quite natural to ask how radiation makes all these drastic effects. When a beam of radiation strikes the human body, the complex molecules present in the cells of the human body are ionised or excited to form irreversible structural changes and there by its physico-chemical properties are changed. The end effect is the biological damage and the different grades of the biological damage occurred in the cells are the inhibition of the mitosis, mitotic retardations, giant cell formation, chromosome breakages or aberrations and death of cells. In a nutshell radiation kills human body cells and that it stops cell division. The inhibition of the proliferate activity of tumour (cancer) is equivalent to its cure. Hence radiation is used to fight cancer cells.

Chromosome aberrations in the cells of the gonad are of very great significance due to the fact that the alterations in the chromosome can alter the genetic characteristics. These genetic changes called genetic mutations can result in gross anatomical abnormalities as evidenced by the bomb survivors. Monsters and dwarfs could be produced. Gene mutations can also involve some of the physiological process resulting in reduction in lifespan, general fitness and vitality. These mutations are the kind, which are of the greatest danger to human population since they result in hereditary defect.

Gene mutations occur occasionally in nature without any apparent external cause. Such mutations are called 'spontaneous mutations'. The various factors contributing to the spontaneous mutations are temperature, chemicals, natural radiation and friction. The incidence of cancer is supposed to be due to 'the somatic mutations according to the most accepted theory now.

The most important factors affecting the biological damage are the age of the person and what part of the body is being exposed to radiation. Different organs of the body have different radio sensitivities and hence the biological damage is dependent on what part of the body is being exposed to radiation. Lower doses of radiation produce greater damage to some vital organs like bone-marrow, the lens of the eye, kidneys and sex glands.

The damage associated with the whole-body irradiation is much more than when smaller portions of the body are irradiated since the unexposed part of the body can bring recovery much more efficiently and quickly.

In general the effect of radiation on reproductive organ is the reduction in fertility. The dose as low as 30 rads will result in temporary sterility in human beings while as the dose of 400 rads 600 rads to the testes may cause permanent sterility while in females 200 rads will cause permanent sterility.

Ionising radiations profoundly disturb developing embryos. Their susceptibility is very high and low doses of the order of 5-10 rads may result in gross abnormally. Irradiation of embryo immediately after fertilization results in mortality.

One of the most serious and non-

fatal consequences of irradiation to the eye is the clouding of the lenses of the eye, known as cataract whose latent period is estimated to be 5-10 years. The production of cataract depends wholly on the dose received by the eye and is independent of the fact whether the rest of the body is irradiated or not.

Another parameter of the biological damage is the age of the person exposed to radiation. Children are very radiosensitive compared to the fully grown up adults. This is due to the rapid multiplication of the body cells in order to cope up with the growth. Old men are more susceptible to the radiation damage because of the reduced recovery and body resistance.

The Government of India looks after the radiation protection of its country by its scientists of BARC engaged in radiation protection. All the radiation sources in India are under the executive control of BARC/AERB and are regulated by their nominees in every hospital.

In view of the dangerous radiation hazards it is mandatory to protect the people from radiation and hence the following strict measures are being taken by AERB.

1. The constructional specifications of the cancer wards and rooms for telecobalt machines, X-rays etc. are designed by them.

2. The supply of the radiation sources like cobalt-60, caesium 137 etc for teletherapy machines for external radiation treatment and that in the form of needles and tubes for the other mode of treatment are all supplied to the hospital only after appointing a competent physicist and subject to the availability of radiation dose measuring facilities.

3. The radiation protection of all the staff are attained by the radiation survey either directly by the radiation survey meters or indirectly through the film-badges or TLD badges.

Failure of a teletherapy machine will be a miniature bomb casualty as the staff and the public in touch are liable to receive intense whole body radiation to make them suffer fatal radiation damage.

Hence the violation of the Atomic Energy Law relating to radiation will be viewed seriously and are punishable under the law of court.

■ The author is Director, Directorate of Radiation Safety, Kozhikode



Learn the Environment

P.K. Sankarankutty

Environmental Science has been emerged as a new branch of studies, which gives importance on conservation of natural resources and restriction on the negativness of modern technology. It has a pivotal role in shaping the personality of a citizen. Career opportunities in Environmental Science are increasing day by day.

Based on a direction from the Supreme Court of India, UGC has introduced various courses on Environmental studies at University and college level by framing model curriculum on the subject. Various Universities and Institutions impart environmental education at the degree, PG and PhD level. Courses are there like B Tech and M Tech in Environmental

Courses conducted by various Universities and Science and Technological Institutes in South India

Sl.No.	Name of State	University Institute	Name of Course
1	Andhra Pradesh	Osmania University, Hyderabad	MSc (Env. Science) ME (Env. Engg.)
2	Goa	Goa University	MPhil (Env. Sc) PhD (Ecological Sc.)
3	Karnataka	IISc Bangalore – Mysore University	MSc (Env. Sc)
4	Pondicherry	Pondicherry University	MSc (Ecology & Env. Sc) & PhD
5	Tamil Nadu	Annamalai University	PG Diploma (Industrial Pollution & Control)
		IIT, Chennai	MTech (Env. Engg)
		University of Madras, Chennai	MSc (Env. Science)
		Bharatiar Dasan Uni., Coimbatore	MSc (Env. Sc)
		Tamil Nadu Agricultural University, Chennai	MSc (Env. Sc), B.Tech (Energy and Env. Engg)
		Madurai Kamaraj Uni, Madurai	MSc (Env. Sc)

Engineering. Those who are having PG, BTech and other higher qualifications in this new branch of science have bright prospects in job arena in India and outside countries.

Eligibility for admission into BSc (Environmental Science) is a pass in the science stream of plus two or equivalent (Physics, Chemistry, Maths, Biology). Those who are having physics, chemistry and maths can go for B Tech (Environmental Engineering). After degree level studies, students can go for M Sc or M Tech in respective branches, facilities for which are available under 47 universities all over India.

In Government sector, there are innumerable opportunities to work as environmental scientist, environmental chemist, hydrologist, energy conservationist, environmental consultant and environmental engineer under various sectors. Those who are having NET, MPhil and PhD qualifications can go for teaching profession in colleges and universities. Chances are there in teaching field as this new branch of science is now under the developing stage. In every State there is pollution control board, which requires highly qualified environmentalists for various jobs. Under the Ministry of Environmental Studies, chances are available in various sectors like Forest Institutes, Zoological survey etc. Candidates having masters degree can seek higher



Name of university	Course
Kerala University	MSc (Environmental Science)
M.G. University	MEM, MPhil (Environmental Management)
Cochin University of Science and Technology	MSc (Environmental Studies)

education in research and fellowship aided by UGC, CSIR, ICMER etc. Fellowships offered by foreign Governments for pursuing doctorate degree and postdoctoral studies are also available in plenty. Chances are there to work as researchers / scientists in research organisations across our country. Avenues are also there for various posts for environmentalists in nationalised banks like Reserve Bank and NABARD. Job avenues are abundantly available in the private sector also. Teaching posts are available in engineering colleges and technical institutes managed by corporate management and private agencies. Chances are there to work as consultants and professionals in multinational companies. In the media fields they can work as environmental journalists. In the eco tourism sector scope for environmentalists are very high in the managerial cadre.

There are three universities in Kerala, which offers PG level and Technology courses in Environmental sciences. Kerala University, MG University and Cochin University of Sciences and Technology run courses.

■ The writer is Deputy Director of Employment.

United Kerala's...

Contd. from page- 5

Government. The Education Bill was introduced in a democratic way to restructure the educational sector, which was declined to a trade zone of communal and racial forces. Against that Bill, forces of communal, racial and the vested interests agitated in a frenzied manner. Suggestions such as the recruitment of teachers to management schools should be done from PSC list could not be implemented.

Like Educational policy and Land Reforms Rules, the Police Policy of EMS Government also was one that marked the fundamental changes. EMS declared that police would not interfere in labour disputes and labour agitations. Till that day police were used to suppress ordinary people, labourers and those who agitate. The declaration, "The duty of police is to keep law and order and investigation. Not suppressing agitations' created a havoc. Capitalists and persons with vested interests yelled, "The law and order is about to break down!" But that was a declaration, which poured confidence to all the working class.

Land Reform, Education Law, change in the bonded labour system, acknowledgement of service and salary terms – all these are steps are reciprocal in the development of Kerala; the basement of a comprehensive development. Self-respect and confidence were transmitted to the vast majority of laymen and the backward classes. Inferiority complex could be kept away. The road to the progress of life opened. The present government is going ahead by holding up the good tradition of that government.

Let this article be concluded by recollecting the last portion of policy declaration delivered by the Governor R.L. Bhatya's in this year's Legislature Assembly Meeting:

"This is the Golden Jubilee year of the assumption of office by the first communist Government led by EMS Namboothirippad in 1957, which laid the foundation for the modern State of Kerala. The development and welfare programmes initiated by that Government is taken as the model for us. My Government will vigorously pursue these policies and promise the people of Kerala that our march forward will be guided by the Left Democratic principles and policies. In this, my Government seeks the support and cooperation of all sections of society." ■

Tele-health Project Launched



KERALA HAS become the first state to launch tele-health projects which link 23 major hospitals, including six Government medical colleges and two super speciality

hospitals via satellite and ISDN line. Even the people in remote areas can access this facility. The project which has the technical support of C-DAC and ISRO was

inaugurated by the Chief Minister V.S. Achuthanandan.

The Chief Minister said, the advantages of modern science and information technology should benefit the

poor in the State. Through this technology, the Health Minister P.K. Sreemathi Teacher communicated with the doctors at the Koilandi hospital.

Mohanlal Joins AIDS Campaign

MOHANLAL, the legendary actor assumes charge as the goodwill ambassador of the AIDS awareness campaign by the Kerala AIDS Control Society. Mohanlal plays the leadrole for the awareness programmes. One of them is "Jeevithaathil Retekkukalilla" (there are no retakes in real life) as the campaign slogan and the other shows exhort the

need to include HIV positive victims into the social lives.

It also reminds that the prevention is the only way to keep away from the disease. Mohanlal said he was happy to get an opportunity to take part in a venture aimed at social good. He added that everyone from the film field would always support all endeavours for the welfare of the people.



Won Gold Medal



L. Vinod has won gold medal in 4x200 metre free style relay in the All India Civil Services Aquatic Championship held in Chennai recently. The team led by Vinod has also won first prize in the water polo championship. An employee with the Planning and Economic Affairs Department in Govt Secretariat, Thiruvananthapuram, he has also won gold in 50 m, 100 m and 200 m breast stroke in State Civil Service Aquatic Championship held earlier.

Giants Fascinating

THE QUEEN of Arabian Sea, Kochi, has once again proved its prominence in the international cruise map, by the arrival of two massive luxury liners. The Queen Elizabeth II and the Seven Seas Voyager

(Radisson Voyager) called at the Kochi port on 25th March. Kochi had just seen Queen Mary II, said to be the world's biggest cruise ship, two weeks earlier. Queen Elizabeth II has come

to Kochi from Singapore and proceeded to Mumbai. The 40 years old massive vessel is travelling around the globe for the 25th time. It visited 40 ports of 23 countries in its journey. Thousands of people

rushed to the ship to have a look at the luxury facilities.

At Kochi, 1500 travellers of the ship were made a short visit to Alappuzha, Mattancherry, Fort Kochi and other tourist places.



Folklore Academy Awards Presented

IN A COLOURFUL, grand function held at Vailoppilly Bhavan on 27th March, Kerala Folklore Academy awards were presented by the Minister for Culture, M.A. Baby. A large number of art lovers and artistes attended the function.

In the function, renowned poet O.N.V. Kurup was the chief Guest. Pannyan Raveendran MP, P. Sivankutty MLA, K.V. Kunjiraman MLA, Sarada Muraleedharan, Prof.A.K.Nambiar attended. Folk arts were performed after the function.



Keeping Nature, for Posterity

Recognising the need to protect the environment for the next generation, the State Government have embarked on novel and ambitious ventures to increase the tree coverage of the state through three ambitious projects; *Vazhiyora Thanal Padhathi*, *Ente Maram Padhathi* and *Theeravanam Padhathi*.

Either side of the entire stretch of 1,33,761 kms. of roads in the State provides for planting a large number of trees. To begin with, it has been decided to Plant trees either side of the National Highway.

To protect the trees in future, the Government have roped in the services of Head Load Workers who spent most of their time on roadsides, soliciting work. The Minister for Forests and Housing, Binoy Viswam, held a series of talks with Central Trade Unions and State leaders of head load workers unions for chalking out a plan of action for this programme. All unions welcomed the programme unanimously. Panchayats, Municipality and Corporation through which National Highways pass



through, will also hold special meetings for this purpose. A two day workshop for trade union representatives was organized in February at Thiruvananthapuram in this connection. The logo and the slogan "*Theruvinu Thanalayil Thozhilali*" were also released during the inaugural function.

Programmes like *Ente Maram Padhathi* and *Theeravanam Padhathi* are also on the pipeline and will be implemented in a couple of months.

Xavier Primus Rajan

LIFE & LINE

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