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RESPONSE



Editorial Materials

Articles/features appearing in this magazine are either commissioned or assigned.

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Suchitwotsavam-Loudly Appreciable

Peace of mind will stay only in a healthy body. And to keep our body healthy the only way is to keep our surroundings clean and tidy. Our chief minister showed the green light for development through “malinya muktha keralam” programme. To ban plastic by 2012 is Govt:’s target. I have to say that through this programme Govt: have opened a new world before us.

Plastic is one of the major toxic pollutants of our time. Plastic pollutes earth and leads to air and water pollution. There is no safe way to dispose plastic waste. The plastic wastes being dumped into rivers, streams and sea contaminate the water, soil, and marine life and also the air we breathe. The wastes, especially cadmium and lead in the wastes, drain into nearby streams and lakes and other water bodies. Thus the water we use gets poisoned.

The only way to overcome the deadly and lasting danger of plastic pollution is to cut down the use of plastic, if possible avoid it altogether. Say NO to plastic whenever and wherever you can. Prefer to carry your own bags for grocery shopping, a jute or cloth bag. All attempts made to put an end to plastic pollution will be a real benefit for your grand children. Let us contribute our part in supporting the Government, save our environment from plastic pollution and make it a better environment for future.

Sreedha Krishnan. Y
 Sreelakam, Vazhuthur, Neyyattinkara.

A Wildlife thought

The article of Shri. Ramkumar gave information about wildlife week. A week for wildlife is amazing. The wildlife week celebration promoting the mentality that the Earth is not for people only, but for other living beings also. The increasing human activities almost destroyed most of the animal habitats. Whatever rights we have to live, the same rights other living beings also have. Selecting a week for wild life is a good step to rethink the cruelties that we have done to the valuable wild life. This is a fresh view point which can make a change in mankind.

Kumari Lakshmi
 Anupashyam, Karamana,
 Thiruvananthapuram

Catchy slogans

Cleanliness is the only way to look upon things in a proper way and keep a sound mind. Malinyavimuktha keralam is a good step to a better life. It is highly appreciable that the public relations department created a slogan and logo and use it in all its publications, advertisements and activities as part of bringing awareness among the people. A slogan (a motto) is one of the most important communication tool and the perfect way to raise awareness of such important environmental issues. Raising awareness of these issues is not confined to a single day, however, and slogans are a great way to pass on the green (clean) message. This is a good way to communicate a message to people from all walks of life and backgrounds. These are ideal for reminding people about the importance of cleanliness

Principal

Mannam Memorial Model School,
 Malayinkil, Tvpm.

Tourism Needs More Attention

Recent issues of Kerala calling made some progress in focusing the tourism sector of Kerala. Kerala will be represented in partnership meets, the new trend in tourism promotion. The partnership meets comprise a business session, screening of films on destinations and products, an interactive session, a media interaction, and showcasing of cultural elements. But unfortunately, Kerala Tourism went unrepresented at the partnership meet organised for the first time in Raipur, the capital of Chattisgarh,. Kerala Tourism will have to start looking at new markets in the wake of major source markets in Europe facing an economic crisis. The decision to aggressively market the destination and the unique tourism products of these regions had been taken in view of the increase in the inflow of tourists and reports that the countries had been less affected by the economic crisis.

Vishnugopal V R

Vaikundom, Thambaram, Chennai.

EDITORIAL

October - a month of mourning

Four deaths in the politico-cultural arenas of the State has immersed us in a sea of sorrow, this month.

The untimely demise of our beloved Minister for Food and Civil Supplies, T.M. Jacob, has robbed us of a great political personality and a rare parliamentarian. His ability and political acumen has been praised by not only his friends and colleagues in the ruling front, but also by the opposition and his foes alike. T.M. Jacob's passing away is a profound loss to the State's political, social and cultural arenas.

The demise of Shri M.P. Gangadharan, former Irrigation Minister in the K. Karunakaran Ministry of 1982 and a staunch Congress man is another loss mourned by the State.

Novelist Kakkanadan and poet Mullanezhi also passed away blowing off the lamps that prominently lit the literary arena of the State. The darkness left by their demise in this realm will be difficult to be illuminated.

The passing away of a wizard Steve Jobs has been mourned by the world at large as he has made the world a better place with his very thoughtful inventions in the IT field. He has left the world all the more poorer by his demise.

The prominent observations of the

month are Kerala Piravi and Malayalam week celebrations. Various programmes have been chalked out by the Government for these observances which include talks, debates, seminars and cultural programmes within the State and at New Delhi. Articles on the topic by eminent writers like Prof. G.N. Panikker, Prof. B. Hridaya Kumari and Dr. J.V. Vilanilam have been included in this issue.

November 14th is World Diabetes Day. At a time when diabetes is fast conquering the world with changing food habits and lifestyles, India takes the cake with the title of the No.1 position as the country with most number of people with diabetes. Kerala competes to be the world capital with 20 per cent of its population under its grip.

An in-depth article regarding the alarming situation raised by this slow killing life style disease by Dr. S. Sivarakaran, Professor, Sree Chitra Thirunal Institute of Medical Sciences and Technology, is also carried in this issue.

The year 2011 being International year of Chemistry, this topic has been touched by an article by Prof. (Dr) C.G. Ramachandran Nair, who was the chairman of Science and Technology, Professor and Dean, Faculty of Science, University of Kerala.

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Government sacrifices revenue from tax on petrol

In the backdrop of petrol price hike in the country, the state government issued orders to waive its share of tax on petrol. The petrol price will come down by 70 paise per litre. The cost of one litre of petrol will henceforth be Rs 68.56, bringing in a gain of Rs.108 crore for State's consumers in an year. The new percentage of sales tax for petrol is 25.42 per cent, which is the lowest in this decade.

It is the third time that the UDF government is wilfully forfeiting revenue from increased tax on petrol after taking over charge just for months ago. When there was a price hike of Rs 5 for petrol last May, the government decided to do away with the increased

tax. In effect, the petrol price has a difference of Rs 1.22. It is estimated that the people had benefited by a sum of 132 crore with this. The government took this decision the very next day of assuming charge of the state.

Last June, there was an increase of Rs3 per litre of diesel. Then the government gave up the additional tax, by which the price was reduced to 75 paise per litre. Through this the people benefited an amount of Rs142 crore.

The government could make available a profit of Rs382 crore for the people through these wilful forfeiture of additional taxes.

During the left governance, there were frequent rise in the petrol price. But only once did the government do away with the sales tax on it. Though in June 2008 the sales revenue was lowered to 26.03 per cent, it had a rise of 29.01 per cent in February 2009.

On the second day of UDF governance, the sales tax was decreased to 26.64 per cent. Now that the petrol price is once again raised, the government reduced the tax to 25.42 per cent.

Express directions for School van drivers



In the backdrop of two major school van accidents in the capital in recent months, the Director of Public Instructions released a circular on the measures to be taken while driving school vans.

1. The lower age limit for the school van driver should be more than 35 years.
2. The drivers should be given an awareness class in association with the motor vehicles department.
3. School authorities should keep a record of all vehicles that bring students to the schools.
4. There must be a register for recording the details of these vehicles, drivers and the students coming in each vehicle; a copy of this file should be given to the nearest police station.
5. In every school there should be a teacher in charge to monitor the working of the school vans daily; an executive representative of PTA should also see to it.
6. A speed limit should be decided for vehicles while driving near water bodies.
7. The condition of the vehicle should be assured thoroughly and checked frequently.

The Director has also asked the school authorities to submit a report after taking necessary actions as per the circular. The circular is available in the site www.education.kerala.gov.in.

Thiruvananthapuram declared Nokkukooli-free

Chief Minister Oommen Chandy sought the help of trade union leaders and labourers to help wipe out the bad impression created about Kerala, by practices such as 'Nokkukooli' (charges for looking on).

He was speaking after declaring the state capital 'Nokkukooli-free.' The initiative is a response to widespread complaints about the practice of demanding 'Nokkukooli' by headload workers.

The Kerala Headload Workers Welfare Board has also brought out booklets on rates for various works. They are also available on the website of the Labour Commissioner, www.lc.kerala.gov.in. The impression that labourers were hindering the State's development was a wrong one, Labour Minister Shibu Baby John said.



Better labour conditions prevailed in Kerala when compared to several other states. He said that isolated incidents were, however, being blown out of proportion.

The Labour Department will soon release wage rates for headload work in other districts.

Complaints about headload workers demanding 'nokkukooli' or rates exceeding the approved ones can be given over the helpline number 155300-3. The helpline is active 24 x 7.

Say No to liquor

For creating awareness about the ill effects of alcohol consumption among students, a short film was released by chief minister Oommen Chandy. Malayalam Super Star Mammootty produced the film for the Excise Department. Mammootty presented the CD to the chief minister in the releasing ceremony.

The 40-second film titled 'Say no to Drinks', was produced free of cost for the state as part of its drive against liquor and drugs.

Chief Minister Oommen Chandy said that the awareness programmes against alcohol consumption should start from schools. Government have written letters to the school officials regarding this issue. The short film will be screened in



school and theatres across the state.

Minister for excise K.Babu, Chalachitra academy chairman Priyadarshan, KSFDC Chairman Sabu Cherian, G. Suresh Kumar etc were present for the function in the chief minister's chamber.

New face for Tagore theatre

The renovation work of the famous Tagore theatre in the capital has started. The first and second phase of the work is gaining momentum. KTDFC have taken over the works of the theatre complex.

The estimate of the plan is Rs 9crore, out of which Government have sanctioned Rs 6 crore. The aim is to make Tagore Theatre most attractive place for holding public functions and cultural activities. The existing stretch of greenery in the surroundings will be protected.

The theatre will be air-conditioned and modern audio-visual equipments will be incorporated. The area of the stage would be extended. There will be facilities for satellite screening of films, an art gallery for small functions and exhibitions.

On the occasion of the 150th birthday celebration of Rabindranath Tagore, the central cultural ministry has put forward a project of financial assistance for renovating 'Rabindra Bhavans' in the country and for building new ones. Also, funds will be available for promoting and spreading Tagore's teaching among the people. The Central Cultural Ministry will provide 60 per cent of the total cost of upto Rs.50 crores. State government should bear the rest.

According to this, the master plan of the Tagore Theatre project will further be revised and submitted to the central ministry. The decision was taken after a meeting in which information minister K.C. Joseph,

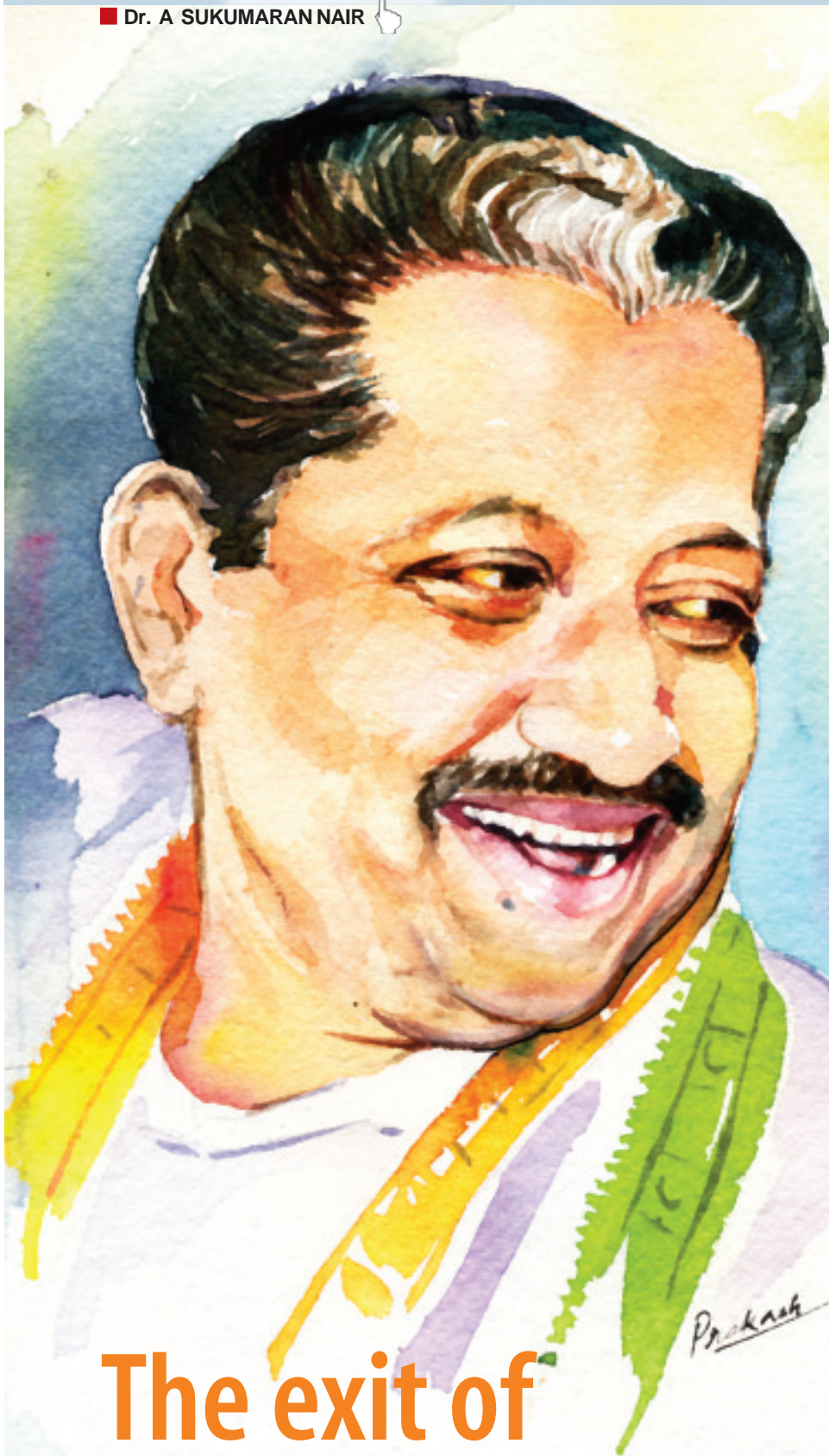


Personalities from the field of art and culture - ONV Kurup, Adoor Gopalakrishanan, Kanayi Kunjiraman, Dr. George Onakkoor and G. Vijayaraghavan meet to discuss the aesthetics for the renovation of Tagore Theatre. In the meeting presided over by the Chief Minister Oommen Chandy, Minister for Culture K.C. Joseph, Minister for Transport V.S. Sivakumar, K. Muralidharan MLA and M.M. Hassan also participated.

Transport minister V.S. Sivakumar and Shashi Tharoor MP were present.

According to the new project, there will be a special performance theatre in order to spread and advocate Tagore's vision. The salient features of the scheme include mini cinema theatre, art gallery, open-stage for performing plays, audio video archival,

audio video production centre etc. The beautification work of the theatre comes under the final phase of the project, which includes landscaping, water fountain setting of mural paintings, building paved walk ways etc. Altogether the project aims to build a cultural complex in the name of the great poet.



Dr. A Sukumaran Nair, former Vice Chancellor, Mahatma Gandhi University, Pro-Vice-Chancellor and Officiating Vice Chancellor, Kerala University, remembers his associations with the late T.M. Jacob.

The passing away of T.M. Jacob, Kerala State Minister for Food, Civil Supplies and Registration in the present Cabinet on 31st October, 2011, has cast a gloom over the political circles of the State. His untimely demise has deprived the State of one of its most brilliant and popular politicians. Jacob by all accounts, is considered to be one of the most outstanding new-generation politicians who shaped the political destinies of the State for nearly 35 years. He was born four years after the country achieved its freedom. He was different from the old-generation leaders who had inherited the conventional conceptions of public administration.

Jacob came into politics while he was a school student in his home

The exit of a glamorous Parliamentarian

town. Coming into limelight as an effective leader with exceptional organising ability, he was given a berth in the State Ministry headed by K. Karunakaran when he was barely 27 years of age. From then on he has continued to be one of the most dominant political figures of the State. He virtually controlled the political destinies of Kerala both as a Minister in the Congress Ministries and as a powerful spokesman of the Opposition.

The TV reporting of his demise and the public functions organised in different parts of the State in his memory are proof of his popularity as a political administrator, parliamentarian and as a legislator. We know that his popularity transcended the usual boundaries. He was loved and accepted by people belonging to different communities and political affiliations. He was a perfect model of a modern democratic politician

work and dedication to public service. The high degree of professionalism he brought to bear in his functioning styles and his readiness to identify popular causes and stand for it, often ignoring political repercussions implicit in his decisions, marked him off from most of the other politicians.

Jacob who was inducted into public administration by Karunakaran and K.M. Mani, soon became an accepted public figure of the State. His popularity as a democratic leader is to be attributed to his ability to convert the static bureaucratic administrative machinery of the State into a people-friendly, socially accountable system which believed in the general good of the people rather than in the adoption of outmoded official procedures. The new administrative style he adopted – professionalised practice of public administration – gave a new locus

equal distinction – Education, Culture, Water Resources, Food, to cite a few. He was a recognised authority on Legislative Practices. Whenever he had to deal with a new problem in public administration, he made a thorough study of the area and evolve proper solutions to the problem before adopting it. What is unique about his management style is that he knew how to convert on democratic dissent into an asset, and use it for modifying his administrative practices. His focus was on the ‘general good’ of the people and not on the ideological prescriptions of political parties. He adopted a flexible strategy - integrate good thinking from different quarters. Every time he was assigned a new portfolio, he used this as an occasion for acquiring higher expertise in the new area. Whichever his portfolio, he left his indelible ‘Jacob Touch’ in its functioning.



Within just five months in the present cabinet, T.M. Jacob created wonders in his portfolio; rice@Rs.1/kilo for BPL card holders, online certified copies of documents, registration of marriages, applications for registration of societies etc. has been accomplished and inaugurated. Online title deed registration and transfer of registry nearing completion.

who believed in giving a professional orientation to political administration. The entire political community of the State acted with one mind when it came to paying its respects to the departed leader.

The high pedestal assigned to Jacob by his fellow politicians was evident in the proceedings of the State Assembly for condoling his untimely demise. The Assembly in its obituary references to him described him as “a leader who created history” and also “as one who travelled ahead of history.” Even these figuratives are inadequate descriptions of a multi-faceted personality like that of Jacob. Very few political leaders of his generation have achieved the popularity he enjoyed. It is well-known that Jacob acquired his popularity through hard

and direction to the Departments he administered. The retrogressive system strategies and delay tactics were effectively eliminated through appropriate follow-ups and timely cross-checks. This he did by accepting the official bureaucracy and converting it to perform what he wanted it to perform.

The senior functionaries of the State Legislative library in a recent TV interview recalled that Jacob was one of the legislators who made maximum use of the resources in the library. It is also well-known that even senior members of the Legislature depended on him for help in giving final shape to the legislations they had to introduce in the State Assembly.

We know that he held different portfolios in different Ministries, with

The greatness of Jacob lies in the fact that even when he was the leader of a small political party, he was able to create the notion that his party is a force to reckon with, and is entitled to all the privileges of a major political party. He was equally effective as a member of the opposition group in the Assembly as he was a member of the ruling party. His track record, both as a member of the ruling group or as a member of the opposition, shows that he was able to stand on his own when facing political criticism. He had the gift of convincing his critics, using highly balanced and logical arguments. Even his most bitter critics had to admit that the view points he held as an administrator were correct. This ultimately forced the opposition

groups to give in and implement the policies which they opposed earlier. The de-linking of the Pre-Degree course from colleges is an example of how the opposition finally got converted and accepted his stand.

The author of this article had the good fortune to work with T.M. Jacob when Jacob joined the Kerala Ministry for the first time as Minister for Education. He came into touch with him when he was serving as a member of the Executive Committee of State Institute of Children's Literature of which the Minister for Education was the Chairman. This led to his induction into Government Service as Special Officer in the State Institute of Education (the present SCERT), Thiruvananthapuram and later as Commissioner for Educational Development and Research, Government of Kerala. He had very close association with T.M. Jacob during this period (1983-86) and was responsible for evolving many of the new policies which he tried to adopt for improving the system of educational administration in the State.

The writer was given the sole responsibility for restructuring school curriculum and for initiating certain new programmes in higher education. The major areas assigned to him by Jacob were: (i) restructuring school education on the lines suggested by the Kothari Commission and the National Policy of Education; (ii) modernising text books and other support materials for schools using advanced pedagogic practices; (iii) reforming the evaluation pattern and certification models for the SSLC Examination; (iv) preparing the ground work for starting the proposed new university at Kottayam (the present Mahatma Gandhi University); (v) preparing the legislation for a Unified Common Act for State Universities in Kerala; (vi) preparing a draft legislation for setting up a State Council for Higher Education for the State; (vii) preparing a Model Act and Project Report for establishing the first Open University in India; (viii) preparing a draft report for establishing a State Council for Accrediting Higher Education Institutions in Kerala (on the pattern of the report prepared by the present author for setting up an accrediting body for higher education under the UGC (viz the NAAC); and (ix) a project report for de-linking Pre-Degree Education from colleges and placing it under a State Board.



T.M. Jacob will be remembered as one of the most important political administrators Kerala has ever seen, and a versatile parliamentarian, who gave a new meaning to democratic public administration.

All the above were evolved after several days' discussions with T.M. Jacob. All of them were completed as per the schedule set by him. When he had completed the first round of work, he recommended the present writer for appointment as Pro-Vice-Chancellor of the University of Kerala in 1986. The second round of duties which the writer took up as per Jacob's direction, was quality upgradation of higher education. This included his strengthening of a task which he had undertaken as Commissioner to Government – giving final shape to de-linking Pre-Degree Education from colleges and placing it under a democratically constituted body of educational experts - the Pre-Degree Board. The present writer was named the convenor of the Government Committee for setting up the Pre-Degree Board. The Report was prepared in a few months. But its implementation was resisted by Jacob's political opponents who created several political controversies, soon after publication of the Report.

The new Government headed by E.K. Nayanar which came to power in 1997 de-linked Pre-Degree education with a new label. The highly progressive strategies suggested to be introduced in the report were sidelined. The writer recalls that Jacob, during his tenure as Education Minister, embarked upon a number of new schemes for improving

the quality of education in the State. Most of them were developed in consultation with this writer. Besides setting up the new University at Kottayam, Jacob adopted steps for establishing or strengthening a number of new institutions – the Lal Bahadur Sastri Centre, Institute of Human Resources Department and the Science Museum, to mention a few.

The writer has many other episodes in mind in connection with the Jacob's services to the State. The attempt to de-link Pre-Degree education, a very important measure which would have helped the State to become a leader in education, did not materialise because of political opposition. His attempts to establish the first Open University in India (Kerala State Open University) was also kept in cold storage for no valid reason. This attempt, if implemented at the time, would have given the State the opportunity of starting the first Open University in India. The steer described above were finalised much before the establishment of the first Open University in the country. Andhra Open University which was followed by the establishment of the Indira Gandhi University (GNOU). Kerala failed to understand the implications of an open system of higher education in the 1980's, when most of the other States in India have Open Universities set up with Central funds. Kerala is among the few

states which do not have an Open University among the Indian States. The legislations and project reports prepared during the tenure of Jacob was revised by the present writer on three subsequent occasions. But an Open University for Kerala continues to be a dream for the most literate State in India.

Jacob initiated many new schemes for upgrading the quality of higher education during his tenure as Education Minister – setting up autonomous colleges, setting up an IIT in Kerala, upgrading high quality of professional education etc. Many of the well-thought-out schemes did not see the light of day because of the negative propaganda by a small section who

Pre-Degree institutions or by collegiate service after delinking, with several equal promotional avenues for both the channels, and the possibility of teachers who opt for the new channel to reopt for the original channel if new promotional possibilities open up later.

An interesting episode which needs to be highlighted in this connection is the fact that Jacob made a personal request to the Chairperson of the UGC that the UGC scale be introduced in colleges of the State, when he met her in her Delhi office along with the present writer. The Chairperson accepted the report on condition that the higher secondary (pre-degree) stage be delinked in six months, since the UGC

without any foresight.

Jacob's eagerness to capitalise on unused sources for generating funds for public good is evident in an event recently reported in a newspaper – how he used the income from selling scrap paper turned out in text book printing for generating huge funds for developing the Science Museum in Thiruvananthapuram. The present writer was serving Commissioner for Education in his Department at the time. He, during his visit to the Government Printing Press at Thrikkakkara, noted that several tonnes of scrap paper after edge-cutting, was thrown out by the Press after text-book was printed, was worth several crores of rupees (The scrap is purchased by Fire Cracker Manufacturers in Tamil Nadu). The present writer reported this to Jacob who immediately decided to use this amount for starting of the Science Museum. Again, it was Jacob who converted the colourless Youth Festival in schools into one of the most colourful talent shows of the State. Jacob normally sat through the entire duration of the festival and personally directed the operations. This created a new culture of operations for the Youth Festival in the State.

It is widely known that the former Chief Minister, Achutha Menon identified the talents of Jacob who had just entered the legislature as a member. The present writer, who had come to into official contact with the then Chief Minister of Kerala – K. Karunakaran had heard him speak of the official competence of Jacob as Minister for Education. As Minister for Education, he earned the respect of all the members of the Central Board of Secondary Education (of which the State Ministers of Education are members and the Prime Minister is Chairman) when he presented his views about modernisation of school education. It is on record that the then Prime Minister, Rajiv Gandhi made three references to Jacob's presentation and applauded the very progressive administrative measures he had adopted. This finally led to the NCERT requesting the Kerala State Institute of Education to provide the scientific models it had developed for adoption by the NCERT.

Jacob will be remembered as one of the most important political administrators Kerala has ever seen, and a versatile parliamentarian, who gave a new meaning to democratic public administration. ■



Chief Minister Oommen Chandy paying his last respects. He is flanked by Finance Minister K.M. Mani and Industries Minister P.K. Kunhalikutty on either side.

opposed all progressive measures in higher education. One example of the negative propaganda relating to Pre-Degree de-linking was that it was an attempt to give permission to start a large number of private schools to irresponsible private bodies which were preparing to use this policy for collecting huge donations for appointment of teachers in the state-aided institutions under their management. This agreement was given wide publicity. The fact is that Government Committee (of which the present writer was the convenor) specifically recommended that the new Pre-Degree classes be started only in Government Schools for the next 10 years if the situation warrants such a policy. Another propaganda was that it is an attempt to downgrade the status of college teachers by assigning them to school service. The Government Committee's recommendation was that all junior teachers in colleges in charge of Pre-Degree teaching will have the option to choose either the delinked

does not have the authority to grant UGC scales to higher secondary teachers. The Minister agreed to do this within a few months. This marked the beginning of the move to delink Pre-Degree education in the State. However, the resistance of the college teachers (the main beneficiaries of the scheme if implemented) was responsible for delaying the delink. Jacob had evolved many progressive plans for upgrading Pre-Degree courses in the State, which if implemented, would have altered this very shape of education in the State. The need to upgrade the higher levels (Degree and pre-degree levels) following Pre-Degree upgradation would have created world class higher education; as desired by Jacob. Those who opposed the scheme introduced the same scheme in a less effective manner within the next 2-3 years. It is a sad truism that the academic community in Kerala failed to understand the implications of the new reforms which Jacob was planning to introduce and hence they opposed it



Disturbing R 'Keralam'

Once again a Kerala Day – we celebrate November 1 as Kerala Day, the anniversary of the formation of Kerala State on 1 November 1956. This writer, then a second year BA student of University College, Thiruvananthapuram, took part in the unique procession of November 1, 1956 which passed through the Main Road – nay, Mahatma Gandhi / M.G. Road - Thiruvananthapuram. It consisted of people of all walks of life, of all political hues. (Incidentally, that was the last Jatha or procession in which this writer - a political activist then, took part.)

State's reorganisation on the basis of language was done on the presumption that the linguistic states would help the growth and development of local language and culture and thereby enrich further the mosaic culture and heritage of India. But to the shock of national leaders who spearheaded State's linguistic reorganisation like Jawaharlal Nehru, the linguistic States became thorny centres of narrow parochialism and linguistic chauvinism! These unhealthy developments reminded us of the Adhikari thesis that India is 'a nation of nations'. Regional parties which can rarely or never think along national lines came to rule the roost, as it were. Fortunately, Kerala has always had national parties at the helm of affairs even when coalition governments are in power. Moreover, our regional parties too have rational stakes uppermost in their minds.

What did we do to make Malayalam, our mother tongue, the official language

We need not worry about the 'Classic status' of Malayalam; let us do whatever is possible to promote its learning and ensure the wider use of our mother tongue. At the same time, let us not become language fanatics who look down upon languages other than their own. Besides, promotion of Malayalam must not be at the cost of any other language, especially English, one of the world languages over which we already have considerable mastery.

of the State? What was this writer's experience as the Special Officer (Official Language) for nearly four years, i.e., from 1988-1992? Have the different coalition governments in power done enough to promote the cause of Malayalam? How is that the elite section of our present-day society look down upon Malayalam, always speaking anglicised and distorted Malayalam and preferring English to our mother tongue? What are the factors that constrained the present UDF Government to issue an order on 5th September 2011, making the study of Malayalam compulsory upto the 10th standard in all sections in the State, including the CBSE schools?

The three-language formula was a well-thought out plan to use the study of languages to promote national integration. We, in Kerala, have been quite honest and sincere in the implementation of three-language formula, while our neighbouring State

Tamil Nadu follows a two-language formula, i.e., (Tamil and English alone are taught there in schools.) Many of the North Indian States subtly sabotaged the formula – they were to teach Hindi, English and a South Indian language – by teaching Sanskrit or Urdu instead of a South Indian language! Principles of Federalism fore close any compulsion by the Union Government.

Even though we initiated steps to introduce Malayalam as the State's official language immediately after the formation of Kerala, we have made only tardy progress owing to a number of reasons. In 1957 a Committee was appointed to study the matter, which submitted its report in August 1958. The Special Officer (Official Language) was appointed in May 1965. However, the State-level and District-level committees were formed in 1970, only with Chief Minister and District Collectors as Chairmen with a view to reviewing and

g Reflections on and Malayalam

accelerating the progress in the use of Malayalam as official language in the various Departments in the State – more than 30 Departments in the Secretariat and more than 70 Departments outside the State Secretariat. And introduction of Malayalam as official language in a phased manner did take place, though the progress is rather tardy and chequered.

My experience as the Special Officer (Official Language) from 1988 to 1992 brought home to me one unpleasant truth: by and large non-Malayalee officers are more enthusiastic about the introduction of Malayalam as official language while the Malayalee officers' approach is rather lukewarm, indifferent, or even hostile! Just one of my bitter experiences: Chief Minister once deputed Chief Secretary to preside over the meeting of the State-level Committee which comprised of Secretaries in the Secretariat and Heads of Departments. The Chief Secretary – a cent percent Malayalee – as the chairman of the meeting, spoke in English throughout the meeting, not using even a Malayalam word! We were all shocked to be the silent witnesses to the Chief Secretary's arrogance as well as his contempt for Malayalam, our mother tongue! In fact, the Chief Secretary's attitude is an extension of a considerable section of Government employees' contempt for those common people – the tax-payers – who flock the Government offices to get their grievances redressed!

Why do many of us prefer English medium schools to Malayalam medium schools or CBSE syllabus to State syllabus? There are two or three reasons: one, the gradual and swift deterioration of general education system in the State, thanks mainly to the systematic but suicidal move on the part of certain

persons in authority to dilute the system by allowing as many students as possible to pass the SSLC and Plus Two classes through certain subtle tricks. One of our earlier education Ministers wanted to have (to achieve!) cent percent pass in these examinations! Teachers who are more interested in political activism – organisational work – than in teaching have become a bane of our general education system. And a Union Minister for Education spoke about the 'tensions of students' because of exams, and said that the Xth standard examinations in the CBSE schools should be scrapped! Result: those who shifted their children from general education schools (State Syllabus) to CBSE schools had the bitter agony of jumping out of the frying pan into the fire! Another valid reason is that parents want to see their children go out of the State or even out of the country in pursuit of better job prospects. English would be much more handy to them than Malayalam. And these parents cannot be found fault with.

Sidelining of the teaching and learning of languages – say Malayalam, Hindi and English – we began a few years ago, has done irreparable harm to students' linguistic and literary pursuits. The so-called Education Experts exhorted us that learning of science alone mattered, and that hours set apart for Malayalam, English and Hindi classes could be far better used by teaching the students physics or Chemistry or Mathematics during those hours as well! They seem ignorant of the fact that students learn languages through books and that by studying a Malayalam short story or poem, a student can improve his mastery of Malayalam and also his aesthetic sense. By throwing out languages, we give up the study of poems, stories and dramas, an invaluable

opportunity to make us more sensitive, compassionate and culturally refined!

True, our step-motherly attitude to our mother tongue, Malayalam, has to be put to an end. To feel proud of one's mother tongue is no sin as long as it does not take us to the extremes, to be intolerant to the use of English or other Indian languages as the situations warrant. Let us not be victims of linguistic fanaticism by insisting on others, even those who are not fluent in Malayalam, speaking Malayalam. English, one of the world languages known to us, a window for us to the world outside, should not be given up. On the contrary, along with the promotion of our mother tongue, our students must be encouraged to have as much mastery as possible of English as well. At the same time, let us not pretend that we have mastery of English and that we are 'weak' or rather 'ignorant' of Malayalam, our mother tongue.

A word in caution: linguistic enthusiasm, or say, fanaticism should not lead us to linguistic chauvinism, often subtly used, to cover up one's lethargy or inability. An example: even college teachers in English teach English

Contd. on Page 45



■ Prof. B HRDAYAKUMARI

The first of November is a day of joy to the people of Kerala. It was on 1-11-1956 that their long-cherished dream of a Malayalam State, a United Kerala became political reality. But there was a price to be paid for it, a price so heavy that it cannot be forgotten. Kerala lost to Tamil Nadu what was once South Travancore and is now called appropriately Kanyakumari District.

Such things happen don't they? A linguistic reorganisation of states cannot always be a clean and painless cut. Moreover South Travancore is not 'lost', it is a part of India as much as Kerala or Tamil Nadu is and Tamil Nadu has always had, down the centuries, a natural, intrinsic cultural presence in South Travancore.

These are comforting musings, but the fact remains that there is a sizable number of Malayalis there about four lakhs and they are a linguistic minority. A linguistic minority doesn't have the political clout of a religious minority. Moreover the Malayalis in K.K district (Kanyakumari District) appear a defected and unorganised lot, content to complain and without the energy and willpower to improve their lot.

If a community cannot value its own treasures, why blame others? Lack of interest leading to abdication of one's own rights is a rot from within, inviting forces of destruction from without.

Malayalis an Hour Away

Soon after the reorganisation of States, many Malayali families from K.K District moved to Kerala, specially the capital of Kerala. It was a continuing process, a trickle of it still perceptible. This was not a difficult change of location because many families in Southern Kerala, specially Thiruvananthapuram District had their roots down South in KK district. Within a warm and accommodating context the new comers could reorganise their lives. But the majority left in the south had to adjust to a new social and political environment. Somebody may ask "they were always there weren't they? What is so new about the environment?" There was no loss of neighbourly cordiality, Tamils and Malayalis having been there together for ages.

But still the Malayalis feel that they are at a disadvantage, and they have some sound reasons for this uncomfortable feeling. One is that Malayalam is becoming less and less necessary to the future of their children. It is not English that is invading and conquering, but Tamil. A language can take root and have a healthy growth only if it is taught at school. Malayali parents

want their children to learn their mother tongue, but it is increasingly difficult to have teachers. It is reported that two Teacher Training Institutes which catered to Malayalam teaching have been closed down. The Government may have had reasons for doing so, but the result is schools don't get trained Malayalam Teachers. In some schools where there was a vacancy for a Malayalam teacher's post no teacher was appointed. The children after waiting for a long time shift to Tamil. Easy it is then to say that there is no demand and abolish the post. Clever moves at a local officer's level are enough to change a minority friendly situation to one far from friendly. When Malayali children have no choice and adopt Tamil at school, the school-records would inscribe the family as 'Tamil'. As it is compulsory in Tamil Nadu that applicants to government posts should pass a test in Tamil Language, a Malayalie there would study Tamil as a necessary qualification. But there is no reason why they should be allowed to feel deprived of a chance to learn their own language. In Kerala there are Tamil schools and Kannada schools. It is time that the Government of Kerala study the issue of what is happening to Malayalam in KK district, and if necessary, take up this issue with the Government of India and Tamil Nadu.

There used to be a large number of Malayalam libraries in KK district. Many of them are now closed down, or just tamping along with a few readers and with scanty or no grants. Malayalis have



Thiruvattar Adhi Kesava Temple

nobody to blame but themselves for this situation. If a community cannot value its own treasures why blame others? Lack of interest leading to abdication of one's own rights is a rot from within, inviting forces of destruction from without. Malayalis still remember with horror and pain how a big library at Nagercoil with rare books, and old records was burnt to ashes many years ago at the time of linguistic partition.

Such tampering with history still goes on in a mild way, but decisive however mild it seems to be. The conch mark and letters 'R.V.' blazoned on old official buildings in the days of the Maharajas of Travancore keep disappearing. They were not conquerors, South Travancore was home to them. K.K. district was the most important part of old Venad which stretched from KANYAKUMARI to Kollam or a little beyond. Many parts of South India have changed hands from Pandyas to Cheras, or Cholas or the other way round. Venad or Travancore was a historical reality for a long time. The neglect of forts, palaces, and other old structures which were part of Travancore history is not a deprecation of a foreigner's past but of one's own past. Moreover the past is India's as a whole, historical relics a perennial source of interest to students of history the world over. Art, architecture, engineering, carpentry, parchments - there is nothing that is not relevant to history.

Kerala arts like Kathakali used to be performed in temples in KK District. The temples themselves except three or four which draw big crowds of pilgrims are in a state of neglect. The Travancore Devaswam Board used to take good care of the temples. The priests are Malayali Brahmins and their rites belong to the Tantric tradition. It is incomprehensible why the

rich Tamil Nadu government cannot afford a generous grant to these temples. It is even more incomprehensible why the Malayalis cannot be more committed to the upkeep of these temples and the welfare of the priests and other staff. Many of the temples, beautiful in themselves, look forlorn and desolate, obviously unwanted except by a few or very few devotees dropping in now and then. This is a problem that the Hindu communities both Tamil and Malayali have to take up seriously and solve very soon. Because it cuts at their self-respect.

Is it a mistaken impression that the Malayalis in old South Travancore now look a hapless lot? Tamil Nadu is a prosperous State and there is no reason why one section of the population



Padmanabhapuram Palace

should look as though they are unwelcome immigrants. They have to be an active and assertive community, cordial and cooperative, but very sure of themselves and their rights. Very easy to say all this but how to work out such hopes and dreams? A large organisation with many activities and no infighting could pave the way for a regeneration of the spirit.

And most probably the govt. of Kerala could help. The govt. of Tamil Nadu could be persuaded to open or reopen the channels for Malayalam learning at school level. And perhaps the proposed Malayalam University or a big sub-centre of it could be established somewhere near the border and serve as the source of a large number of activities useful to Malayalis in KK district also. Maybe a popular Malayalam daily could start a Kanyakumari edition. Without the political turmoil of Kerala, but sharing some of the cultural life of Kerala, the Malayalis in Kanyakumari could be a happier lot. But their fate rests with them. They have to wake up and organize. ■

The writer is Rtd. Principal, College for Women, Thiruvananthapuram.



e-Malayalam to

There was a controversy in the mid-eighties when the University of Kerala's Department of Journalism was given a new name, *Department of Communication and Journalism*. The controversy received further energy when the term "mass communication" became quite acceptable in the media world without examining the difference between communication and mass communication. Communication is natural whereas mass communication is man-made. Such controversies are meaningless in the 21st century where e-mail, Internet, mobile phone, SMS, Twitter, blogging, etc. are household words at least in educated circles, especially in Kerala that has been described as the media mecca of India. Electronic media are quite familiar to us these days and communication between friends, between the government and the people, between the media and the readers or viewers, and between universities and students, between and among various institutions is carried on electronically with ease and rapidity. The process of communication has undergone a sea change during the past three decades and it is revolutionizing the political, social, economic and cultural aspects of life, not only in Kerala or India but throughout the world.

Are we in Kerala communicating electronically in Malayalam or in English? The answer is simple: most definitely in English. But why not in Malayalam which is our mother-tongue. It is supposed to be the language of administration in the new millennium. The State government is encouraging officials and citizens to use Malayalam in all their dealings. There are various government agencies such as the Official Language Commission, etc. to promote Malayalam. But even after all these worthy endeavours, is Malayalam gaining acceptance as an e language? That is an important question.

e-Malayalam is gaining popularity. Those who have Malayalam software, especially in newspaper and magazine production centres are probably using it more frequently than others. But still there is not enough use of e-Malayalam. Even some of the promoters are using e-Malayalam in English types, transliterating M words into E-script using English alphabets. Why don't we use a unique e-Malayalam script?

The answer is not simple. There are various difficult obstacles to overcome. First of all, the present incumbents in government offices have to evolve a format for addressing issues of vital importance and responding to them in

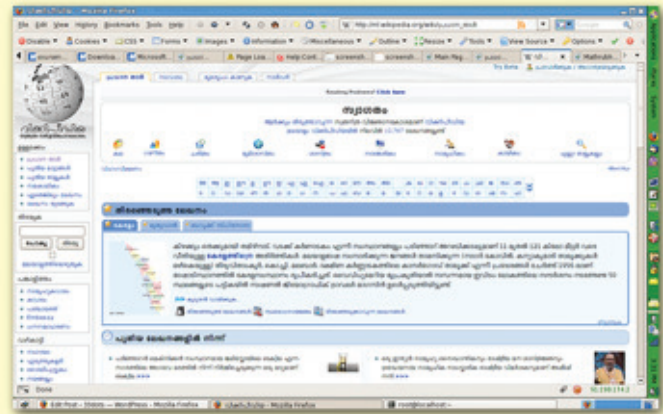
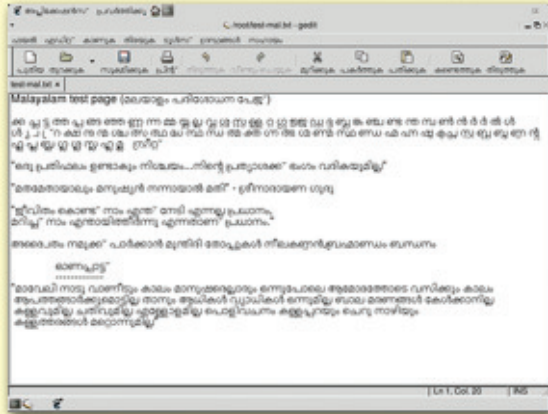
a simple, straightforward, and easy to comprehend Malayalam. Technical terms that are too much Sanskritised and hence difficult to comprehend without reference to the Malayalam dictionaries or Sabdataaraavali must be avoided.

Instead, learn from Tamil scholars and administrators some very useful roots that help us to develop a glossary for use in administrative communication. Developers of the glossary will benefit a great deal from scholars not only in Tamil, but all the southern Indian languages plus Hindi/ Sanskrit. The objective is to minimize the distance from the root meaning and the term used, without ambiguity. Tamil is closer to Malayalam; still we can learn a lot from the southern Indian language-sisters. The Institute of Dravidian Linguistics and the departments of English, Linguistics, Malayalam, Oriental Manuscripts and Sanskrit of the University of Kerala can be helpful in this exercise. Perhaps some significant steps have been taken already in this regard.

The next step is to strengthen the practice of using the computer with Malayalam software to prepare a standard correspondence style and popularize it through various channels—school, college, the media and popular as well as official associations (residents' associations, Secretariat District Headquarters and employees of seven universities in Kerala, cultural groups, meetings of various organizations in the cities and suburbs). It will take a few weeks or months to make citizens aware of the patterns and practices in the area of grievance representation, grievance procedure, etc. in appropriate language and style. A standard style in e-Malayalam petitions, letters, representations, etc. can be evolved. For example, do we have to address an Honourable Minister as "Dear

For communicating in simple, straight forward and easy to comprehend Malayalam, technical terms that are Sanskritised must be avoided... Some very useful tips to help us develop a glossary for use in administrative communication can be had from Tamil scholars... The objective is to minimize the distance from the root meaning and the term used, without ambiguity.

gain Strength



Mr....Dear Miss... Dear Mrs... Dear Ms....., Dear Sir... Or Dear Madam... or simply "Sir/Madam" following the English style or can we put the address in the proper manner and start stating what has to be stated.

Many scholars and prominent citizens are of the view that the native genius of Malayalam is not comfortable with the formal or informal English style of addressing a VIP as Dear Mr...Dear Sir or Dear Madam or even "Dear Sir/Madam as the case may be"! Instead, they say that after writing the address at the top the writer can straightway start: "Maanyar'e"and then the subject matter. Of course, we do not have to follow the old "document writers' style", commonly referred to as the "R'aayasam style"—writing one unending sentence of one hundred or even two hundred words, without stops (full or partial, meaning commas) and paragraphs! We have never addressed this question in schools and colleges in relation to officialism and officialese. The new systems of lower and higher education have to deal with some of these practical style matters and epistolary contents and conventions. Well, that's another area that comes to mind in this context.

More importantly,we have to deal with certain anomalies that have crept into

our lingo in recent years. Most probably this occurred because of some negligence on the part of teachers. The Malayaali uses hundreds of English words in his/her speech and writing. Unfortunately we do not have Malayalam equivalents for many English words. As said before scholars have to devote some attention to this matter. Let us hope that they will, sooner rather than later. But a very negligent attitude of the media to the use of language is Transliteration,another important matter related to e-Malayalam, which requires closer attention. Perhaps we need another article for a detailed discussion of transliteration.

Standardization of language is of prime importance in communication. Dozen or more different styles of writing words and pronouncing them in a wrong practice that will confuse communicators and erode sense; both will lead to unnecessary bickering, wrangling and even fist fights! Let us therefore follow a standard style in communication.

Some newspapers and electronic media (even this distinction is becoming blurred) have style books. But style books have to be critically reviewed. I wonder why some commonly used English words lose their original

pronunciation, clarity and uniqueness of meaning in the hands of educated Malayalis? For example, all sensible Malayaalis know that a dairy cannot produce milk; only a dairy can! But why do our TV /Radio news readers pronounce dairy as diary. Suppose Milma uses MILMA DIARY instead of MILMA DAIRY,will it make sense?What is the Malayaali's difficulty in pronouncing dairy in Malayalam?Why should he write DAYARI instead of writing correctly,Dairy (Day-ri)?

Another very interesting word commonly mispronounced by most of us is DAIS. Dais is the platform. Listen to how speakers repeat the word as Dayas. The word has to be pronounced as Days not Dayas which is the last name of many of our citizens in Kollam and Kochi.That reminds me of Marine Drive.We write "marine" (rhyming with dine). The non-Malayali will not understand the word "marine" if we pronounce it as we do; the correct pronunciation is mar-eeen.

Well, I have only touched upon just a few problems in using e-Malayalam. I leave technical matters to the expert engineer,a Jobs or Wozniak in Kerala to deal with them.■

The writer is former Vice Chancellor of Kerala University and Professor of Communication and Journalism (Rtd.)



CURRENT



12th Five Year

Approach Paper for P

This approach paper, will be subjected to discussions at all levels and will be streamlined as per creative inputs generated from these discussions. The Government desires for a common consensus regarding the plan among the diverse politico-social organisations...

Draft outlines of Approach Paper for 12th Five Year Plan (2012-17) is ready for discussion before finalisation. Minister for Planning, Shri K.C. Joseph said that this approach paper, prepared on the basis of discussions will be subjected to discussions at all levels and will be streamlined as per creative inputs generated from these discussions.

The Government desires for a common consensus regarding the plan among the diverse politico-social organisations. This is the reason why discussions are contemplated at various levels. Agriculture, Tourism, Education topics will be discussed with experts and the publics of the field at Kozhikode. Industries, Information Technology, varied sectors, NGO's etc will be discussed at Kochi.

Discussions with Lawyers, Doctors, Chartered Accountants, Engineers, representatives of other



Five Year Plan for Public Vetting

institutions, representatives of SC/STs, MLAs, MP's, Journalists, Financial Experts, District Panchayat Presidents, Mayors, Municipal Chairmen, their representatives, representatives of political parties, labour organisations, youth, student, women's organisations etc. at Thiruvananthapuram. They will be exposed to the draft approach paper and their views, opinions, suggestions and recommendations will be considered in all seriousness before finalising the draft approach paper, Minister K.C. Joseph said.

Planning Board Member Shri C.P. John and Shri V.S. Vijayaraghavan will lead the discussions in which the Chief

Minister Mr. Oommen Chandy, Minister for Planning Shri K.C. Joseph and the Vice Chairman of the Planning Board Mr. K.M. Chandrasekhar will lend their active participation.

At the heart of the Approach paper, for the 12th Five Year Plan of the State is a strategic intent: to lay the foundation for creating an economy which is productive, competitive, sustainable and inclusive. The benefits arising from a set of core initiatives being planned across the different sectors of the economy, if implemented with a high sense of urgency and passion, will be spread beyond the next five years. Such benefits, if nurtured well, will reinforce each other

and put the State's economy on a firm footing to harness the opportunities that national and international development will offer. The approach to the 12th Plan should be looked at as the first step towards the achievement of the vision capturing the goals for the development of the State by 2030.

The text of the 'Outlines of the Draft Approach Paper' has been prepared with inputs from various sources, including Government Departments, academics, experts and others. This text was discussed at length by the State Planning Board and is now presented in draft form for consideration by all interested persons and stakeholders and for their



The State Planning Board would be glad to receive suggestions regarding additions/ deletion/ modifications of the points enumerated in the text and fresh approaches to any issue.

programmes as are beneficial and making changes where necessary. Investment of Plan resources in the 12th Plan will be so targeted as to act as catalyst for attracting more resources, be it private or external, including funds from banking and financial institutions so that the sum total of investment is far greater than the amount of

Government Plan investment. Monitoring of implementation will be a key objective, so as to make most effective use of resources within given time frames. The 12th Plan also aims at ushering in a strong, focused modernized and result oriented governance. The State will aim at an average growth rate in GSDP of 14.50%. (As projected by the 13th Finance Commission at current prices). Strong and modern infrastructure is a sine qua non for rapid development.

The 12th Plan will strive to lay the foundation for a sound and durable infrastructure at par with international standards. Improving the quality of higher education and skill development will receive greater emphasis. Public education will be revamped to enhance the quality of education and of infrastructure. Employment generation will be a focus area and will be secured through higher and more dispersed investment, development of infrastructure, higher standards of education, particularly

inputs.

The present text is intended only for discussion and to elicit views and opinions from the people of Kerala and others interested in the development process.

The formulation of the 12th Plan is a separate exercise and Working Groups, consisting of officials and experts, have been constituted to work out details. The approach to the Plan will give general guidance to the Working Groups, which will then finalize detailed Plan proposals.

At this stage, the State Planning Board would be glad to receive suggestions regarding additions/ deletion/ modifications of the points enumerated in the text and fresh approaches to any issue.

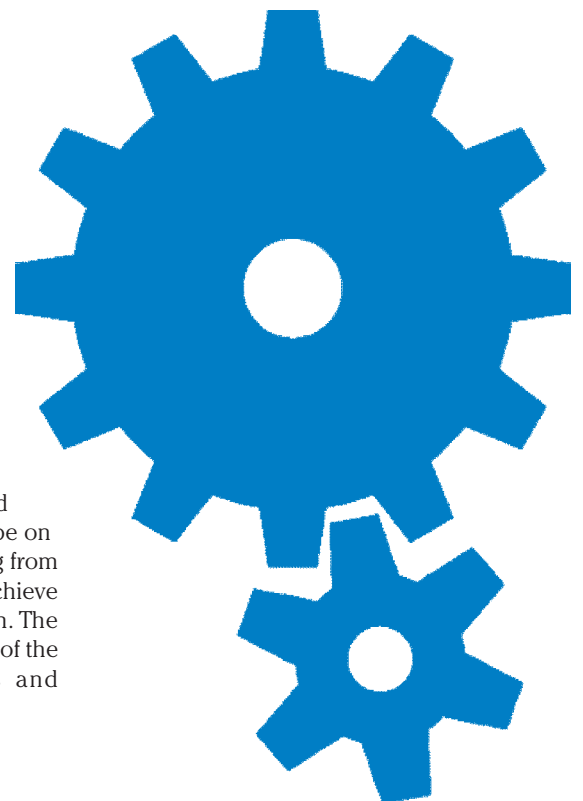
Details of the draft outline of the approach paper can be had from the website spb.kerala.gov.in. Suggestions from the General public are solicited at

email chiefpcdapproach2011@gmail.com or by post addressed to Shri. D. Prashant, Chief, Plan Coordination Division, State Planning Board, Thiruvananthapuram 695004 or to the District Planning Officers of the concerned districts.

OVERVIEW

Development with care and compassion

12th Plan will be people-centric, based on the needs of the citizen and aimed at improving the status of each individual and each group of people. Focus will be on a bottom to top approach, starting from the people in the lowest strata to achieve the objective of inclusive growth. The 12th plan must build on the gains of the past, retaining such policies and



vocational education at school and college level and skill development. Top priority will be given to improve the status of Public Health since the shine of the Kerala model has been diminishing of late. Waste management and provision of drinking water will receive the highest priority so that there is overall improvement in hygiene all over the state. Panchayat Raj institutions will be strengthened to make them capable to take the "Next Step" issues in decentralisation. The complexities of plan formulation, vetting and approval will be simplified and Poverty alleviation programmes will be co-ordinated to transform Kerala into a No Poverty State. The economic and social status of the marginalised sections like SCs, STs, Fisherfolk, Artisans and others will be improved with more focussed State spending and effective interventions.

Approach To Special Fields Like Agriculture And Allied Activities such as Agriculture, Animal Husbandry and Dairy Development, Fisheries, Irrigation, Environment and Natural Resource Management and objectives with emphasis on their development are spelt out in detail for evoking discussion and electing public opinion.

Approach to Social Services

The Twelfth Five Year Plan will have a multi pronged approach in the Social Services Sector. In social services, the State has the legacy of a big beginning and illustrious past to work with. Nonetheless, the Twelfth Plan will have to address the issue of deterioration in the quality of services provided through the public delivery system, be it in education, health or other social services. The new Five Year Plan should also strive to address special and second generation problems of development, besides making concerted efforts to modernize the sector.

In this sector, Education, Public Health, Social Welfare, Persons With Disabilities, Housing, Public Distribution System, Nutrition Security, Sports Development etc. will be addressed.

The APPROACH TO LOCAL SELF GOVERNMENT institutions will address the problems and prospects of Rural Local Bodies, Urban Local Bodies, Local Body Reforms, Poverty Alleviation, Weaker Sections and Co-operation.

APPROACH TO INDUSTRY, IT AND

SERVICES will cover MSME Sector, Food Processing, Industrial Infrastructure, Traditional Industries, Pollution free Industries, Mineral Development and Entrepreneurs. Labour, Skill Development, Information technology, Science and Technology, Tourism and Non-Resident Keralites.

APPROACH TO INFRASTRUCTURE will comprise of topics like Roads, Bridges and Transport, Port and Inland Waterways, Inland Waterways, KSRTC And Motor Vehicles Department, Power Sector in the realms of Capacity Augmentation, Energy conservation/Savings/efficiency activities, Reducing AT & C losses, Reinventing KSEB.

Innovation

The national 12th plan approach document dedicates a section on innovation highlighting three issues: finding solutions to the needs of the

- There is a need for taking a holistic view of the several e- governance initiatives implemented in the State.
- The ongoing capacity building programmes on E-Governance would be strengthened.
- Modernisation initiative for service delivery would be launched covering modernization of District Collectorates, Village offices, Krishi Bhavans, and other key Government offices with streamlined procedures, increased delegation and extensive use of ICT to improve faster delivery of services. E-administration is the right tool for introducing transparency and accountability in administration for rendering pro-poor services.
- It is proposed to introduce a Service Delivery Bill for ensuring service delivery by Government officials within given time frame

Details of the draft outline of the approach paper can be had from the website spb.kerala.gov.in. Suggestions from the General public are solicited at email - chiefpcd_approach2011@gmail.com or by post addressed to D. Prashant, Chief, Plan Coordination Division, State Planning Board, Thiruvananthapuram - 695004 or to the District Planning Officers of the concerned districts.

people, innovations in organisational and process models that help commercialize the technologies developed in laboratories and innovating the process of innovation itself to contain cost of innovation.

Governance

The Government must be effective and efficient in delivering social and public services. Efficient and accountable public administration, participatory and transparent governance processes are key priorities to correct structural inadequacies. The interests of the poor and under privileged will not be adequately protected without affirmative public policies and governance arrangements.

A strategy would be introduced for improving governance in the 12th Five Year Plan, the main elements of which are as below:

- The Result Framework Document (RFD) system has been introduced in the Government Secretariat. It will be extended in phases to District Administrators, Local Bodies, Public Sector Enterprises and Government Supported bodies.
- A systematic evaluation exercise will also be undertaken, inclusive of third party evaluation. Such monitoring, review and evaluation will also be extended to identify iconic projects.
- Whenever any project is placed for approval of competent authority, it shall include an implementation schedule, indicating the activities involved, the time frames, the cost and approximate date of completion. Any extension beyond the date of completion or any cost over-run will entail explanation of reasons for delay and fresh approval of competent authority. ■

Restoring the Museum and Zoos

The Museum and Zoo remain one of the main attractions of Thiruvananthapuram even today; the television and internet age. Napier Museum, Art and Natural History Museum and the City Zoo, are in the same premises. The museum was established in 1855. The new building was named after Lord Napier the Governor of Madras from 1866-1872. The architectural masterpiece, designed by Robert Chisholm, the consulting Architect of the Madras Government and the construction was completed in 1880. Napier Museum is a landmark in the city with its unique ornamentation and architectural style with gothic roof and minarets. The Museum compound also houses the Sri Chitra Art Gallery, which contains works of Raja Ravi Varma as well as examples of Mughal and Tanjore art, the Nicholas Roerich and K.C.S.Panicker art galleries. There is also a children's park inside the zoo premises.

Thiruvananthapuram Zoo, one of the oldest in the country, was established as an adjunct to the Napier Museum in 1857 by the erstwhile Maharaja of Travancore in order to attract more visitors. The typical iron barred, cement floored, dingy animal cages built in the past still stand as monuments of the royal style

and architectural supremacy rather than being proper housing for animals. As these cages are outmoded with the changed concepts of Zoo management, they are being renovated/replaced by open mooted, spacious, nearly natural enclosures in a phased manner.

As part of the 100 Days Action Plan of the State Government, various projects saw their commencement at the Museum and Zoo in Thiruvananthapuram; the first and foremost being the Cataloguing of bird specimen kept in Natural History Museum.

As part of the 100 Days Action Plan of the State Government, various projects saw their commencement at the Museum & Zoo, Thiruvananthapuram.

Cataloguing Bird Specimens of Natural History Museum

The Natural History Museum at Thiruvananthapuram Zoo has a large collection of birds hitherto apart from the ones displayed in the galleries which is unknown to most ornithologists and other scientific community in Kerala and India. The original collection of bird specimens was done in Kerala during the late 19th century and early 20th century by the British ornithologists William R. Davison, H S Ferguson, T.F Bourdillon, John Stewart etc. A major part of these collections was sent to the British Museum of Natural History, but many of the specimens were kept at the Museum and Public Gardens, Thiruvananthapuram (as the Natural History Museum, Thiruvananthapuram was called at that time) where H.S. Ferguson had served as the Director.

As part of the research project 'Along the trail of Salim Ali, a study on the avifauna, their habitat and ecological history', sponsored by Kerala Forests and Wildlife Department, the research team had inspected the specimens kept in 30 cabinets containing 1584 specimens belonging to 153 species. They had meticulously catalogued each and every specimen. This cataloguing of birds would serve as a readily available resource for ornithologists and research scholars.

Digitisation of Museum Library

The present Museum Library started functioning so early as 1836. Being an institution started more than one and half century ago, the Museum library is one of the oldest and valuable libraries in Kerala which possess a very rare collection of books and manuscripts published during the last three centuries. Some of the books are very rare to be found anywhere else. Some periodicals published during 19th century by Bombay Natural History Society and other publishers are





also available here. Most of the books reflect our lifestyle, religion, tradition, culture, civilisations and history of that period.

Ever since the world-wide web made it possible to display graphics through network, libraries have been scanning their older documents and pictures to provide access to them. Knowing the significance of this library, the Department of Museums and Zoos decided to digitise it. As of first phase, 500 books were selected for the project. This has been successfully completed and implemented through high quality scanned images and with precise search facility. Among the digitised series, 'Medicina Aegyptiorum, a book on medicine written by Jacobi Bontii in Latin which dates back to 1719, 19 is the oldest one.

Now these books can be accessed through the network of computers arranged in the library for the purpose. The distribution of knowledge has become much more easy than in the past. The successful implementation of

digitisation of library by this Department would encourage the Department to go in for large-scale digitisation of its entire collection of the Library, transforming the heritage collection into digitally available resources and to put it in the public domain of the World Wide Web.

Natural History Museum

The entire building of Natural History Museum was renovated and repainted. The Construction of wood cabins, replacement of the iron grills with artistically designed wooden doors etc. have been undertaken.

KCS Paniker Gallery

The Department of Museums and Zoos which houses the KCS Paniker Gallery, is celebrating the 100th Birth Centenary of renowned painter KCS Paniker, with various function throughout the year. Repainting the walls and laying of tiles in the KCS Paniker Gallery and well as installation of air condition system in gallery is being taken up before the commencement of centenary celebration.

Accessibility for differently able and senior citizens

As a first step towards a barrier-free environment and service to persons with disabilities the Department constructed a teak wood dismantling type ramp for carrying wheel chairs in Art Museum 10 wheel chairs are also made available. To ensure purified drinking water to the visitors, taps have been installed at seven new points on the zoo and museum premises.

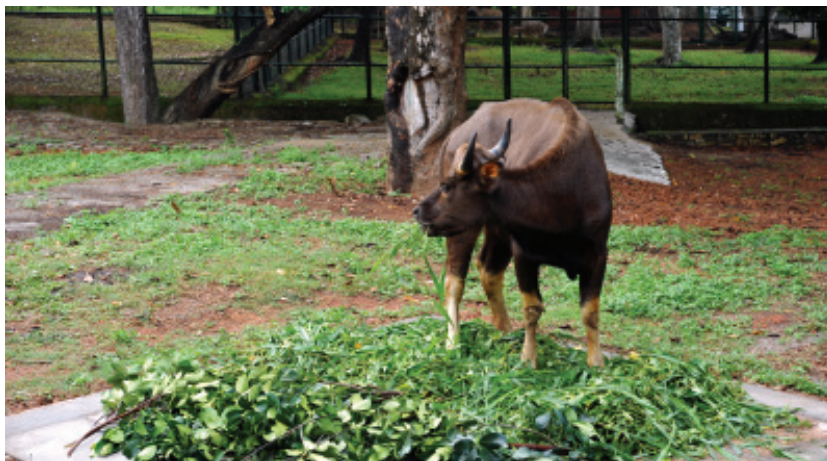
Sundari has new friends

Two gaur - Sushma and Prithvi, nearly two years old, one male and a female - arrived in the city zoo from Mysore zoo. Sundari, the 11 month old gaur is not alone anymore. According to the zoo officials, Sundari was found at the Bonakkad estate in an abandoned state when she was less than a month old. She was handed over to the city zoo by the Forest Department.

The new animals were brought to the city zoo on August 28 through the mutual exchange of a pair of African Cape Buffalos. Gaur, an endangered animal of the cattle species, is in the Schedule I of the Red List. The zoo now has around 600 animals, which constitute 105 species. Thirty-one keepers are deployed to take care of them.

Lighting system changed to LED

The implementation of LED lighting system for Art Museum building and Sree Chitra Encave by replacing the existing halogen lighting was completed within the stipulated time frame successfully. The LED lighting of the building and its surrounding has been well applauded by the public as the true beauty of this



majestic building is fully projected during the night. Moreover, after completion of the project, in order to go green and to implement the Energy efficient and Eco Friendly lighting for the entire campus, an Energy Auditing on the Garden area, KCS Panicker Gallery, Directorate, Natural History Museum, Aquarium, Reptile Gallery, Zoo Hospital, Residential quarters, Sree Chithra Art Gallery and the interior of Napier Museum was conducted. This energy audit found that power consumption has been reduced by 50 per cent to 70 per cent and the electricity bill has been reduced to half.

They have found that by systematically configuring and designing



the Energy Efficient and Eco Friendly Lighting (LED lighting) in the place of the present system, there will be a huge savings of Power (approximately to 52.23 per cent). Which means that electricity bill can be reduced by Rs.7.77 lakhs annually. They have also ascertained that by using the LED lighting in the Sree Chitra Art Gallery the damage caused by Ultra Violet rays on the valuable paintings produced by the present lighting system can be done way with.

Development and Renovation of Garden

The garden in the Museum premises covering an area of 15 Acres is visited everyday by thousands of tourists. The residents of the city visit this garden for morning and evening stroll and also use the place for spending their leisure time with their family. The garden gate is opened to the visitors as early as 4:45 AM and closes at 9:00 PM. If the garden is developed and redesigned in modern lines



it will attract more visitors and will be a boon to the city dwellers and the tourists. Keeping this in mind the Department requested the Government accord necessary sanction and the same was accorded by them for the Development and Beautification of Museum park by appointing Kerala Agri-Horticultural Society as consultant and architect for the project. The work is in its final stage of completion.

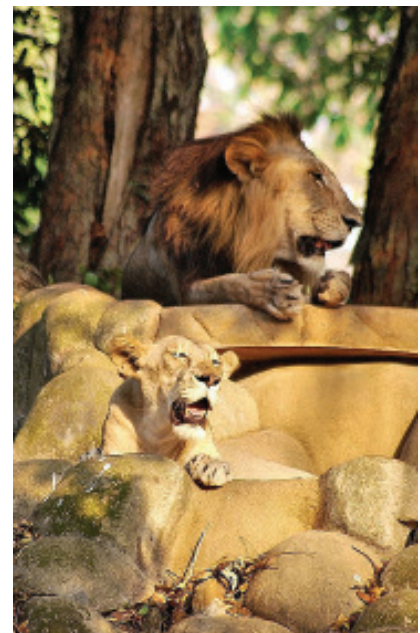
Renovation works in State Museum and Zoo, Thrissur

The animal enclosure has been renovated. The Art Museum and Natural History Museum has being completely renovated and opened to the public.

Art Gallery and Krishna Menon Museum, Kozhikode

The Art Gallery and Krishna Menon Museum is a prime attraction of Kozhikode. It is situated on a hilltop at East Hill, 5 kilometres away from the heart of the city of Kozhikode and 6 kilometres from the Kozhikode Railway Station. An Art Gallery started functioning here in the year 1975 under the Department of Museums and Zoos Government of Kerala. In the next year, a museum was also opened in the name of Vengalil Krishnan Krishna Menon (1896-1974), former Defence Minister of India and an outstanding orator who is a native of Kozhikode.

The Malabar Collector's Bungalow during the British period has been converted into this art gallery and therefore there are limitations in converting this building into an art gallery. In order to have a state-of-the-art Museum in Kozhikode, the Department has prepared a project of ₹ 8 Crore and submitted it to the Central Government for financial assistance. The construction of a new museum building in the three acres of land in East Hill, which is under the control of the Department of



Museums of Zoos, will solve the development problems of the institution. The salient features of the project for new museum building are: an eco-friendly building surrounded by gardens, in the traditional architectural style of Malabar; Four main gallery halls to accommodate the art and history of Malabar, personalia galleries, audiovisual gallery and small galleries; an Amphitheatre in the garden area; ; an auditorium for conducting seminars and exhibitions; Library Hall; Strong Room and Store Room; Ticket counter, Information counter, Cloak room; Office rooms, Staff room, Control room; Waiting room, Security room, Guest room; and Parking area.

Apart from this, the proposed new museum also envisages to dedicate galleries for Vaikom Muhammad Basheer, S.K.Pottekad, K.PKesava Menon and living legends like M. T. Vasudevan Nair. ■

With inputs from the Director, Museum and Zoos.



T M Jacob

Food and Civil Supplies Minister and Kerala Congress (Jacob) leader T M Jacob passed away at Lakeshore Hospital Ernakulam on 30th October (Sunday) at 10.34 pm. He was 61.

He is survived by wife Annie Jacob, son Anoop Jacob and daughter Ambili Jacob.

He died following liver failure and abnormal high blood pressure in lungs. He was hospitalised on October 17 with liver disorder. His son and daughter were present when the minister breathed his last. Jacob was born on September 16, 1950, to T S Mathew and Annamma Mathew. Jacob was a former Education minister and had also held the Irrigation and Water Supply portfolio in the A K Antony Government, which came to power in 2001. As a student, he entered politics and subsequently became a member of the Kerala Congress in 1964.

He was the general secretary of the Kerala Students Congress (KSC), the student wing of the Kerala Congress, in 1971. He was KSC state president for three consecutive years from 1972 and during 1976-78 he became the president of the Kerala Youth Front.

Jacob was elected to the Kerala Legislative Assembly for the first time in 1977 from Piravom constituency and remained a member for next 30 years, representing Piravom and Kothamangalam constituencies. He was also the parliamentary party leader of Democratic Indira Congress (K). A gifted writer as well, he penned two books Ente China Paryadanam and My China Diary.

The demise of Food and Civil Supplies Minister T M Jacob brings down curtains on an eventful life. He earned the reputation as one of the most able legislators, who was admired even by political opponents, and also an able administrator who had made his mark in every portfolio he had handled. Former Chief Minister C Achutha Menon had complimented him and pointed out in the late seventies that Jacob is a man to be watched.

As Education Minister in the K Karunakaran Government in the 80's, he had presented the 'Pre-Degree Board', a novel idea in the higher education sector, as his brainchild. School youth festival had attained its present form and stature during his stewardship in the ministry.

He had also excelled in the portfolios of Irrigation- Culture, in the A K Antony Government. In the present Oommen Chandy Government, he was one of the most performing ministers. He introduced the popular scheme of distributing 25 kg rice at Re one-per-kg for the BPL families.

The intricacies of the Kerala Congress politics never deterred him from taking a stand on his own. His interest to delve deep into legislative procedures and business was amazing. He maintained an extensive library in his house. After a severe Hepatitis-B bout while he was a Minister in the A K Antony Government, his health was often not keeping well during the past decade despite specialist treatment in hospitals abroad.

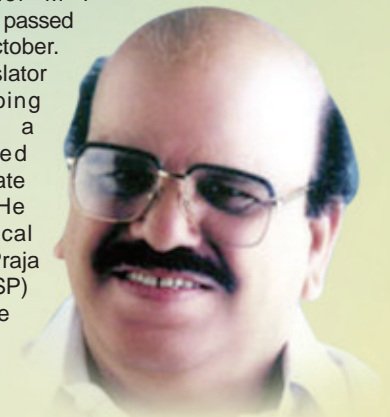
In mem

M P Gangadharan

Former Irrigation Minister and Congress leader M P Gangadharan, 77, passed away on 31st October.

The six-time legislator was undergoing treatment for a stomach-related ailment at a private hospital here. He began his political career with the Praja Socialist Party (PSP) and later joined the Congress in 1963. He hailed from Palliyoor in Kozhikode. He was elected to the third Kerala Legislative Assembly from Nilambur constituency in a byelection held in 1970. Later, he was elected to the fourth, fifth, sixth, seventh and eleventh Assemblies from constituencies including Ponnani and Pattambi.

Gangadharan had served as the Irrigation Minister in the K Karunakaran ministry of 1982. However, he had to resign before completing the full-term following a PIL filed by the late social activist Nawab Rajendran accusing him of marrying off his minor daughter. Gangadharan left the Congress and tried to pitch his fortunes with the Tiwari Congress and later moved to Democratic Indira Congress (K) floated by K



Memoriam

Karunakaran in 2005. Later though he joined the Nationalist Congress Party he rejoined the Congress.

In his illustrious political career, Gangadharan had held several important positions, including that of CLP leader, chairman of Kerala Water Authority and Kerala Tourism Development Corporation, AICC member, KPCC general secretary, Malappuram DCC president and KPCC executive member. Gangadharan was residing in the capital city for the past several years.

He is survived by wife M K Santhakumari, two sons and one daughter.



Kakkanadan

Eminent novelist George Varghese Kakkanadan, one of the pioneers of modern Malayalam literature, passed away at a private hospital on 19th October 2011. Kakkanadan (76) was battling cancer for the past few years. He is survived by wife Ammini, two sons and a daughter.

His works made a clean break from the neo-realism that dominated Malayalam literature through the 1950s and 60s. Kakkanadan's early works broke new ground in Malayalam fiction on account of their earnest exploration of deeper realities of life by employing new diction and narrative methods.

Though vast majority of readers initially found it hard to accept the modern trends ushered in by Kakkanadan and some of his contemporaries, their works soon created a new sensibility marking a radical break from the past. Kakkanadan's major works include 'Vasuri', 'Ezham Mudra', 'Ushnameghala', 'Parankimala' and 'Kshathriyan'. He has also penned hundreds of short stories, known for their freshness of themes and unique narrative style. Kakkanadan had received several honours including the Kendra Sahitya Academy award.

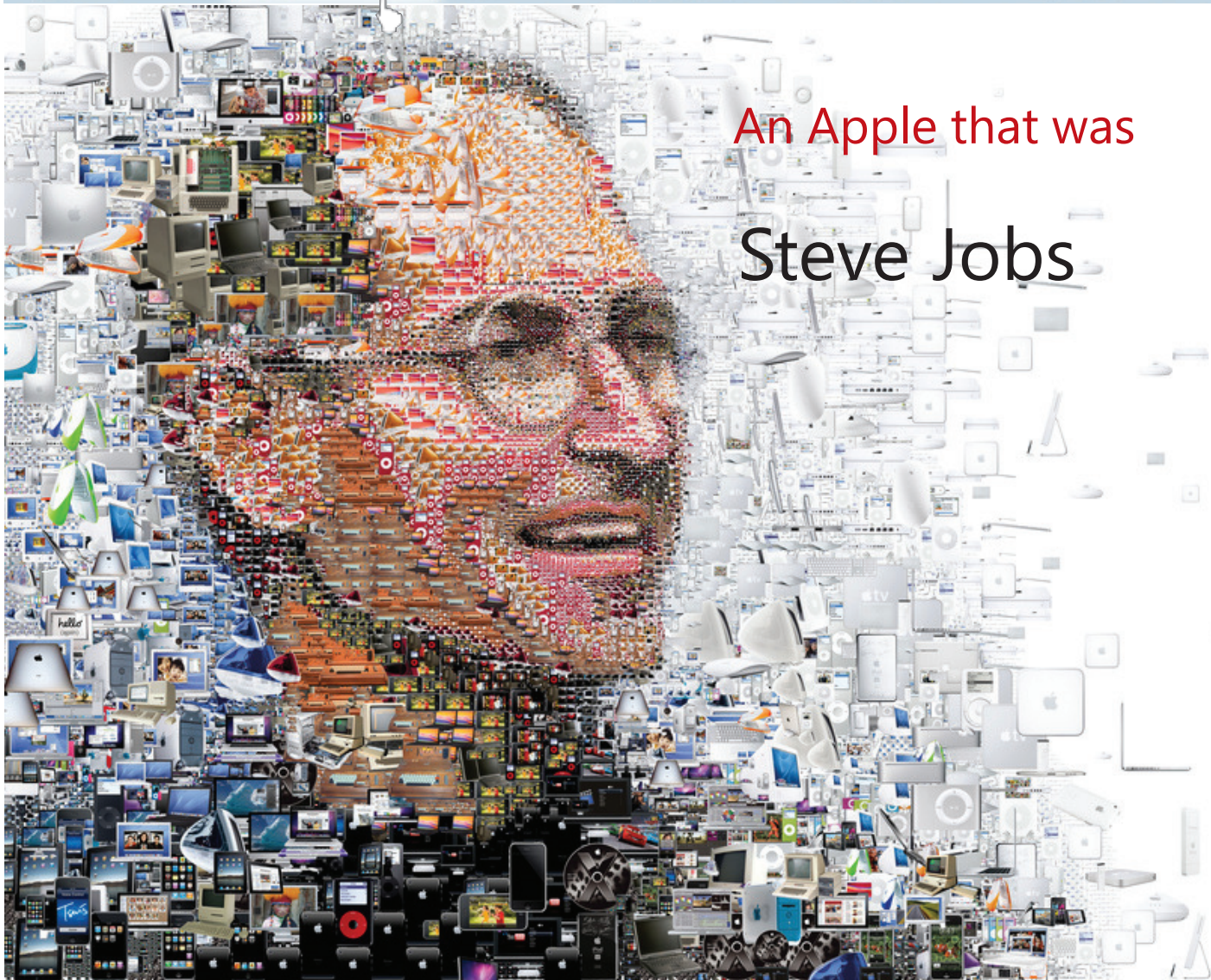
Mullanezhi

Within days after litterateur Kakkanadan passed away, cultural Kerala witnessed the sad demise of Mullanezhi M N Neelakandan Namboothiri, a poet, lyricist and actor. He breathed his last at a private hospital here in the wee hours of 22nd October, 2011 due to cardiac arrest. He was 63.

Neelakandan Namboothiri, popularly known as Mullanezhi, found a place in the hearts of music lovers for his lyrics that matched fine poetry. Born on May 16, 1948 at Avinissery, Mullanezhi was a member of the executive committee of Kerala Sahitya Akademi during 1980-83. The eminent poet entered the creative world by acting in a drama, 'Chaverppada' in 1970.

Mullanezhi won state award for best lyricist in 1981. He was also a recipient of Kerala Sahitya Akademi Award in 1995 and 2010.





An Apple that was Steve Jobs

The apple fell not only on Sir Isaac Newton's head but also on Steve Jobs'. This time it chose to remain an apple; not just a fruit, but a whole lot of user-friendly, sleeker gadgets that transformed everyday technology from the personal computer to the iPod and iPhone.

Steve Jobs, a college dropout, co-founded Apple Computers with Stephen Wozniak. He was a revolutionary and a pioneer and a marketing genius all rolled into one. He was the envy of the technology field. He was able to establish one of the best brands in the planet and his was a true rags to riches story. He moved millions of people and inspired an entire generation to do better than what is already there.

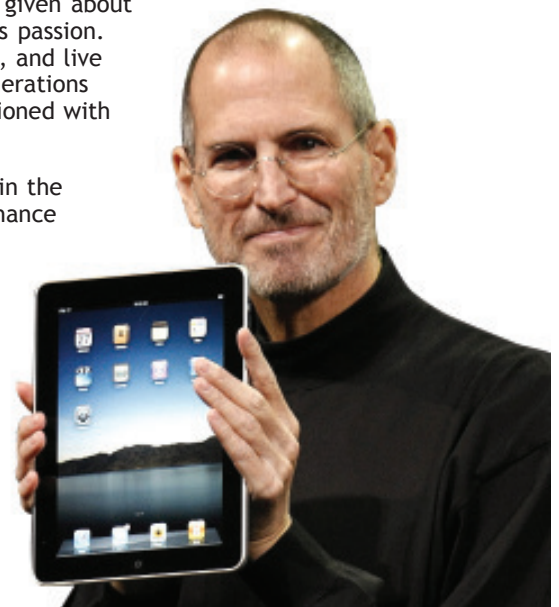
On his passing away on 5th October 2011, over a million people from all over the world have shared their

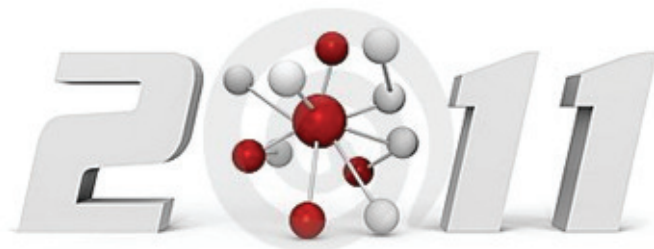
memories, thoughts, and feelings about Steve. One thing they all have in common – from personal friends to colleagues, to owners of Apple products – is how they've been touched by his passion and creativity.

He lives on in his products, in his company, and in the inspirational words he has given about the importance of following one's passion. Great artists leave us their works, and live beyond their allotted years. Generations from now, his name will be mentioned with awe.

He will live on in our hearts and in the magical things he created to enhance our lives. The world is a better place having had his presence. Steve has not only changed the world for the better, but also has allowed others to do the same. Steve Jobs set out to change the world - and succeeded.

- XPR





The International Year of Chemistry

Some Environmental Concerns

The year 2011 marks the hundredth anniversary of the award of the Nobel Prize in Chemistry to Madame Marie Curie, one of the greatest chemists of all time. As per the suggestion of the International Union of Pure & Applied Chemistry (IUPAC), at its 2007 Council meeting, the United Nations Educational, Scientific and Cultural Organization (UNESCO) declared 2011 as the International Year of Chemistry.

The IYC-2011 has accepted as its general title the phrase "CHEMISTRY—OUR LIFE, OUR FUTURE".

The UNESCO resolution was accepted by all the member countries of the UN. Accordingly, the IYC 2011 is observed and celebrated all over the world. Seminars, lectures, popular talks, film shows, debates, symposia, conferences, radio and television programs etc are being held in all the countries. India is also a prominent nation participating in the observance of IYC 2011.

Why 2011?

We have already mentioned that the centenary year of the award of the Nobel Prize in Chemistry to Madame Marie Curie is 2011. She received the unshared Nobel Prize for Chemistry in 1911 as a recognition of her epoch-



making discovery and isolation of the radioactive metals radium and polonium. (Madame Curie had earlier received the Nobel Prize for physics in 1903, shared by her husband Pierre Curie and her senior colleague Henri Becquerel). The Year 2011 is also the centenary of the founding of an International Association of Chemists, which later evolved into the currently active International Union of Pure and Applied Chemistry (IUPAC).

Another coincidence is that 2011 is the bicentenary year of the emphatic universal acceptance of famous Avogadro's Law which plays a cardinal role in both physics and chemistry and indeed even in all science.

Chemistry is ubiquitous

Chemistry touches everything in the world! This is not surprising, because chemistry, by definition, is the science of matter. Chemistry has its say everything "from salt to camphor" ("uppu thottu karpooram vare", as expressed elegantly in Malayalam!). All the substances in the material world are chemicals. The air we breathe is a mixture of mainly nitrogen and oxygen. The water we drink is a compound of hydrogen and oxygen. The food we eat is mostly carbohydrates, proteins and fats, which are all chemical compounds of varying complexities. The dresses we wear are made of chemical polymers. Some are natural polymers (like cotton, wool and silk); some are synthetic polymers (like nylon and polyester and acrylic).

The medicaments we use are all chemicals (e.g. aspirin, paracetamol, penicillin etc). Essential micronutrients like vitamins are all chemical compounds. Why, for that matter, our bodies are also composed of matter only! We are tiny blobs of carbon, hydrogen, nitrogen, oxygen and a few other elements, capable of existence only on the surface of a chunk of matter called the earth, which itself is an average-sized planet revolving around the star called the sun. The sun itself is an average star among the ten thousand million (10¹¹) stars in the Milky Way galaxy. The MWG itself is an average galaxy among the trillion (10¹²) galaxies in the Visible Universe. All these are made up of matter and energy!

A central science

Chemists are fond of describing their science as a CENTRAL SCIENCE. On the one hand, it is related to physics and

mathematics. Thus we have physical chemistry, chemical physics, computational chemistry and the like. On the other hand, chemistry is closely connected with life sciences. Consider organic chemistry, biochemistry, medicinal chemistry, food chemistry etc. In a third direction, chemistry interacts with earth sciences and atmospheric sciences. Geochemistry, mineral chemistry, atmospheric and stratospheric chemistry are examples of such interactions. We then have astrochemistry (chemistry of stars), nuclear chemistry, and so on. Amongst all these multifarious disciplines, the science of chemistry stands in the middle, connecting all these peripheral disciplines.

A giant science

Chemistry is a giant science, with innumerable branches. We have the main branches - Inorganic, Physical, Organic and Analytical Chemistries. Then we have specialties like solid state chemistry, thermochemistry, electrochemistry, magnetochemistry, chemistry of natural products, photochemistry, petroleum chemistry, quantum chemistry, crystal chemistry, surface chemistry etc. We have superspecialties like photoelectrochemistry, defect solid chemistry, semiconductor chemistry, superconductor chemistry, supramolecular chemistry, etc. Indeed we can compare chemistry to a giant banyan tree spreading its branches all around.

It imitates and surpasses Nature

Chemists study all natural products and try to synthesize them by different routes usually unknown to nature. The list of naturally occurring products successfully synthesized by man is long—drugs like quinine, alkaloids like morphine and Brucine, vitamins like ascorbic acid (Vitamin C), dyes like indigo, etc. In most of these cases, the synthetic substance is cheaper than the natural product.

But the glory of chemistry is that it surpasses nature. Chemistry has given us a large number of absolutely new substances, unknown to nature. The list is long—synthetic dyes, drugs, fertilizers, alloys, composites, plastics, synthetic polymers, ceramics, cement, detergents, cosmetics and so on.

Take the case of plastics. They were unknown 50 years ago!

Today we have innumerable things made of various plastic materials—from

bags, briefcases, chairs, tables, doors and windows, wallets and purses, footwear, spectacle frames, water pipes and tubes, scientific instrument bodies, milk sachets, heart valves, blood bags, and so on.

Plastics are polymers; but all polymers are not plastics! For example, the natural fibres cotton, wool and silk are not plastics. Also, while there are many natural polymers, there are few natural plastics. Synthetic polymers may however be plastics too. One of the first and most well-known synthetic polymers is nylon, discovered in 1911 by Caruthers. Others like various polyesters and acrylics were soon made and these play a major role in the garment industry and play their part in clothing humanity.

Touching human life profoundly

The range of diverse products that chemical industry has given us is astounding in number and variety. Take the case of fertilizers. When Fritz Haber synthesized ammonia from nitrogen and oxygen, he was heralding the agricultural revolution. The Haber synthesis of ammonia and the subsequent production and widespread use of ammonium sulphate fertilizer was enthusiastically welcomed as a boon. The fertilizer chemist was hailed as a great benefactor of mankind and as "one who made two blades of grass grow where only one grew before"!

It is true that synthetic inorganic fertilizers as well as pesticides, fungicides, insecticides and the like all have now been blamed for soil pollution and soil deterioration. The real culprit here is



To commemorate the hundredth anniversary of the award of the Nobel Prize in Chemistry to Madame Marie Curie, one of the greatest chemists of all time, the United Nations Educational, Scientific and Cultural Organization declared 2011 as the International Year of Chemistry. The IYC-2011 has accepted as its general title the phrase "CHEMISTRY—OUR LIFE, OUR FUTURE" and



as its logo.

indiscriminate over-use. One must remember that, but for industrial fertilizers, food production now would have been greatly reduced. And Malthusian predictions of universal famine would have become real and dire tragedies which could have wiped out a substantial part of the human race.

Chemistry and Medicine

The influence of chemistry is most spectacular in the field of medicine. Acharya P C Ray had pointed out that in ancient India, "chemistry was the handmaid of medicine". This continues to be so in the world even today. Can we now imagine a world without antibiotics, sulphur drugs, vitamins and so on? All these are gifts of chemistry to medicine

Environmental Chemistry

Chemists all over the world are now extremely concerned about environmental issues. The world is now facing grave environmental problems like pollution of air, water and soil, ozone layer depletion in the stratosphere, greenhouse gases, global warming, climate change etc. Chemistry has been unjustly blamed for some of these. Actually it is man's greed and consequent abuse and misuse of chemistry (and science and technology in general) that has caused the life-threatening environmental problems. And there is awareness now that these problems can be solved only by more "clean" science and technology. It is in this context that green chemistry has recently become a major field of research in chemistry

Green Chemistry

Green chemistry, also called sustainable chemistry, is closely related to environmental chemistry. Green chemistry encourages the design of products and processes that minimize the use and generation of hazardous substances. We may say that, while Environmental Chemistry is the chemistry of the natural environment, and of pollutant chemicals in nature, Green Chemistry seeks to reduce and prevent pollution at its source. The focus is on minimizing the hazard and maximizing the efficiency of any chemical choice. In 2005 Ryoji Novori identified three key developments in green chemistry: use of supercritical carbon dioxide as green solvent, aqueous hydrogen peroxide for clean oxidations and the use of hydrogen in asymmetric synthesis



Chemistry of the Future

Chemical researchers the world over are now trying to harness hydrogen as the universal fuel. Hydrogen is abundantly available (from the source water!). Burning hydrogen produces only water vapour and so hydrogen qualifies as a non-polluting fuel. It is envisaged that by 2050, all automobiles will run on hydrogen fuel. There are, at present, many technological, ergonomical (energy-economical) and engineering problems. But scientists and technologists are working hard to overcome these hurdles.

Utilization of solar energy is also a high priority item before chemists and physicists and engineers. Problems like concentration of solar energy and invention of more efficient catalytic converters in photovoltaic technology are two major issues here. But one expects solar energy to meet most needs of man by the close of this century. ■

The writer is Former Chairman, Science, Technology & Environment Committee and ex-officio Secretary to the Government of Kerala; Former Director, Sarva Vijnana Kosham and Former Professor & Dean, Faculty of Science, University of Kerala





■ Dr. ACHUTSANKAR S NAIR

When windows makes its round all around us in our Personal Computers and elsewhere, the elite and professionals talk about the ease and gracefulness of the Apple Mackintosh... Some even thought that the apple being talked about is the fruit and wondered why. The curiosity grew even bigger when tributes were paid to the new age *i* wizard. 'Steve Jobs' who passed away peacefully in his home on 5th October 2011 after battling with pancreatic cancer for eight years, leaving the world richer with his inventions and all the more poorer by his demise.

Dr. Achutsankar S. Nair writes about how computers are no different than human beings when stripped down to their DNA and how Steve Jobs made apple different.



Steve Jobs and the Operating System Cult

Computers are the imperfect outcome of the arguably subconscious attempt by scientists to make a machine that mimics the human being. While the correspondence with the brain (CPU) and the senses (input-output devices) are very easily recognised, alleging intelligence, instinct and culture are also possible. The operating systems of

modern computers can in many ways be looked upon as their culture, or at least as their customary behaviour. In real life as various cultures evolve, they churn out specific streams of customs and emerge very often as religions or sects with holy books and holy men to mobilise them. It is very common to see that people belonging to one cult

sincerely feel that they are very "different" from people following other cults. However one may not be able to see any such remarkable difference from a scientific view point, say, by analysing their DNA (only about 0.1 per cent of DNA is individualistic). The case of computers is similar. The operating systems like Windows, Linux and Apple Mac have

Steven Paul "Steve" Jobs (February 24, 1955 – October 5, 2011) was an American inventor and businessman widely recognized as a charismatic pioneer of the personal computer era. He was co-founder, chairman, and chief executive officer of Apple Inc. Jobs was co-founder and previously served as chief executive of Pixar Animation Studios; he became a member of the board of directors of the Walt Disney Company in 2006, following the acquisition of Pixar by Disney.

In the late 1970s, Jobs—along with Apple co-founder Steve Wozniak, Mike Markkula and others—designed, developed, and marketed one of the first commercially successful lines of personal computers, the Apple II series. In the early 1980s, Jobs was among the first to see the commercial potential of

Xerox PARC's mouse-driven graphical user interface, which led to the creation of the Apple Lisa and, one year later, the Macintosh. After losing a power struggle with the board of directors in 1985, Jobs left Apple and founded NeXT, a computer platform development company specializing in the higher-education and business markets. In 1986, he acquired the computer graphics division of Lucasfilm Ltd, which was spun off as Pixar Animation Studios. [6] He was credited in Toy Story (1995) as an executive producer. He remained CEO and majority shareholder at 50.1 percent until its acquisition by The Walt Disney Company in 2006, making Jobs Disney's largest individual shareholder at seven percent and a member of Disney's Board of Directors. Apple's 1996 buy out of NeXT

assumed hues of religion in many senses. Holy men are not scarce too – Bill Gates, Steve Jobs, Linus Torvalds, Richard Stallman. Steve Job's unfortunate demise and media's rich reporting of it befits a cult. What Windows, Linux and Apple Mac are today surely owes a lot to their adoption of the non-geek, common sensical and friendly Graphical User Interfaces (GUI). The concept of GUI in itself has roots in the contributions of known and unknown individuals.

Perhaps the first reference should go to the anonymous person who devised the election ballot paper. The simple logic that writing down the name of the person we want to elect require one to remember the names of all the candidates and that we need to know to write and read, triggered the idea of the ballot paper. With the symbol appearing besides the names, we see the replica of a start menu in a ballot paper.

The adoption of this approach to computers is credited to Douglass Engelbart and Evan Sutherland. In 1960s they brought out the primitive version of today's popular computer mouse and a graphical interface program called Sketchpad. It was in the Palo Alto Research Centre (PARC) of Xerox that these ideas came together and was developed further.

In 1979, Apple entered into an agreement with Xerox and started working on developing these technologies further. Thus began one of the initiatives to popularise the then-futuristic technologies of the mouse and GUI. The Apple Mac released in 1984 became popular not only due to its ease of use and innovativeness, but also due

to the very imaginative, powerful and successful marketing strategy. Many consider the success of Apple Mac as a joint achievement of Apple and Xerox, even though this was not often highlighted by Apple (Years later when Google, which had excellent relations with Apple, adopted Apple's ideas into their open source Android operating system, Steve Jobs did not pardon them).

In a year's time Apple's USP lost some of its glitter with Microsoft coming out with Windows operating system. While Apple Mac bundled its software inseparably from the Hardware, Bill Gates had different ideas. Finally Microsoft was four times ahead of Apple Mac in PC user base. Steve Jobs is of course not entirely remembered for leading the Apple Mac development. In India he is possibly more known for the Apple products in the handheld devices sector – iPod, iPhone, iTunes ... Rather than as a technologists or scientist, Jobs is more to be remembered as a technology visionary, successful entrepreneur, business tycoon and marketing strategist.

In India and Kerala Apple Macs have a relatively thin user base, though the penetration in mobile devices may be a different story. Mac PCs are limited to specialised users/institutions and some media houses. Steve Jobs therefore did not become a topic of intellectual discussion in Kerala unlike Bill Gates and Richard

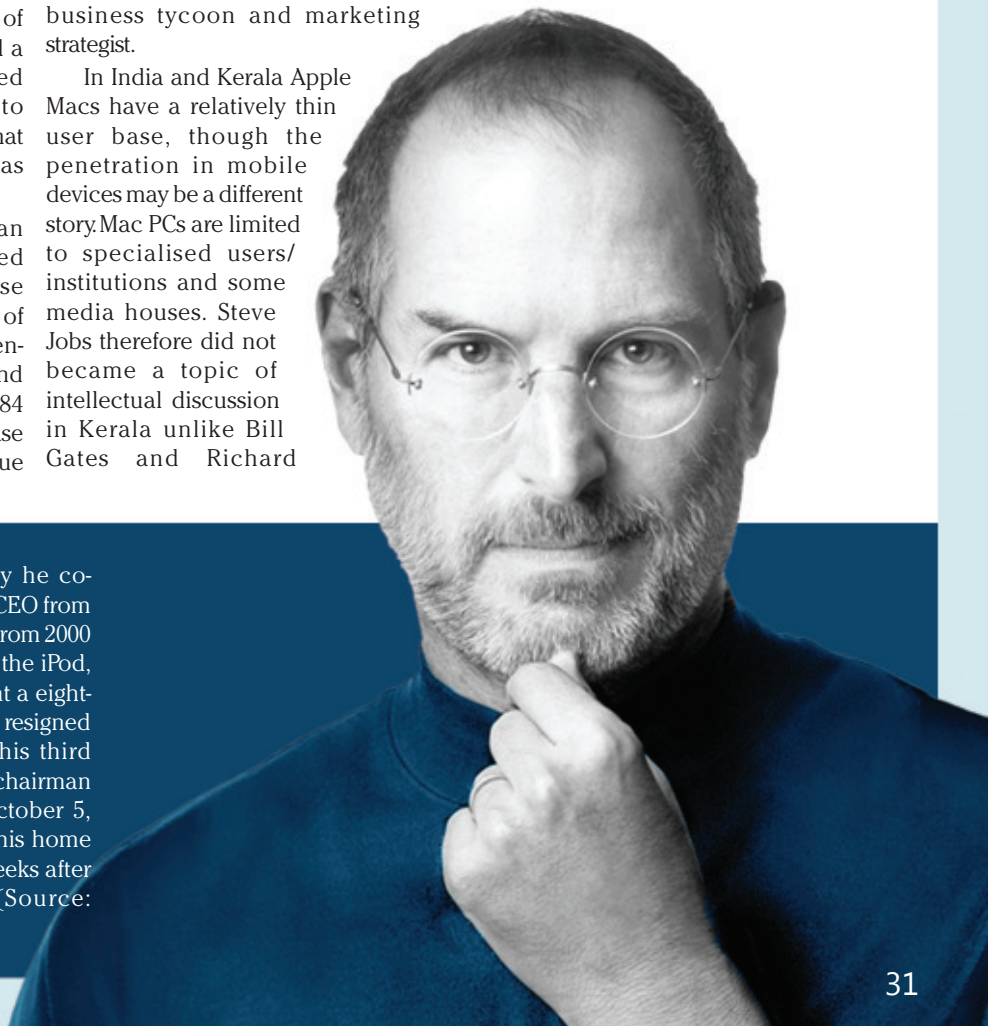
Stallman.

Speaking of Indian connection, it may be recalled Steve Jobs scaled down the Indian operations even as IBM and Microsoft looked at Indian operations as connecting to future. Steve had a tete-a-tete with Indian spirituality. He was soon disillusioned with it and reportedly came to a conclusion that "Edison has done more than Karl Marx and Neem Karoli Baba <his spiritual guru> put together, in bettering human lives". His technology centricity and vision of life is perhaps distilled in the above remarks.

When religions make men fight, the wise remind us that our blood is all of the same color. Let us also not forget that Windows, Linux and Mac - all boil down to ethically and socially neutral pile of zeroes and ones, as they reside in the disks and silicon chips. ■

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brought Jobs back to the company he co-founded, and he served as its interim CEO from 1997, then becoming permanent CEO from 2000 onwards, spearheading the advent of the iPod, iPhone and iPad. From 2003, he fought an eight-year battle with cancer, and eventually resigned as CEO in August 2011, while on his third medical leave. He was then elected chairman of Apple's board of directors. On October 5, 2011, around 3:00 p.m., Jobs died at his home in Palo Alto, California, aged 56, six weeks after resigning as CEO of Apple. (Source: Wikipedia)



Keralites, please act on diabetes now

Twenty years back, the international diabetes federation initiated the process of utilizing a day every year specifically for augmenting the awareness of the public, regarding the preventable disease, diabetes mellitus and its complications. At that time, the disease was a less common disorder in Kerala. Now Kerala is competing to become the World capital of diabetes. This year the slogan for the World Diabetes Day on November 14th is 'Act on Diabetes Now' This call for action seems to be the most relevant health message for Kerala. 14th November is the birthday of Frederick Banting who discovered Insulin in 1922 along with his Professor Macleod and Charles Best. This date is observed as the World Diabetes Day in recognition of this seminal contribution.

What is diabetes?

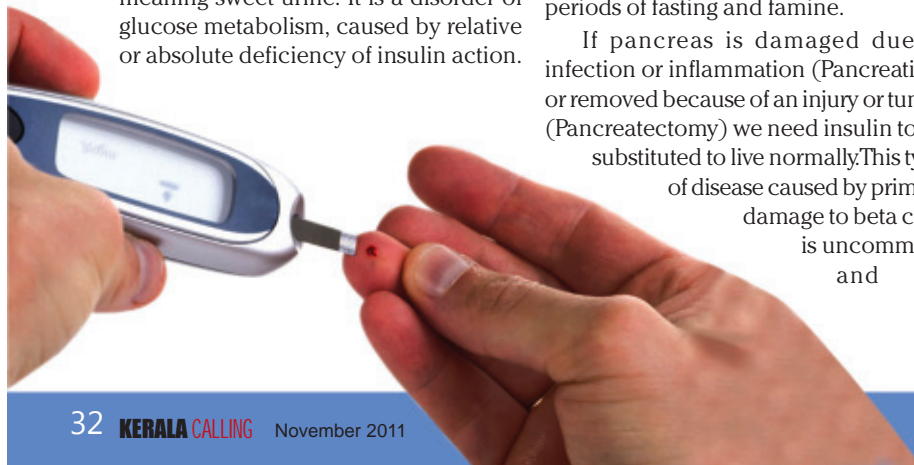
Diabetes is one of the World's oldest diseases, and is mentioned in the ayurvedic textbooks as 'Madhumeha', meaning sweet urine. It is a disorder of glucose metabolism, caused by relative or absolute deficiency of insulin action.

So the blood level of glucose exceeds safe levels and starts appearing in the urine. Glucose is the form in which the starch and sugar components of our food are utilized by every cell in our body for generating energy for various functions. Green plants synthesize glucose from carbon dioxide and water, by photosynthesis, and store it in the form of starch. Starch is water insoluble. When we digest starch in our stomach, we break it again to its simple water-soluble form, glucose, and assimilate it into our body. Though glucose is water soluble, the majority of the cells in our body need adequate insulin action to get the glucose molecule into the cell. Insulin is a hormone secreted from the beta cells of the Islets in our pancreas. The glucose that enters the cell is either converted into energy or water insoluble forms like glycogen, fats and cholesterol for further storage. In short the glucose, insulin, and fat axis are a major biological advantage nature has conferred us to overcome periods of fasting and famine.

If pancreas is damaged due to infection or inflammation (Pancreatitis) or removed because of an injury or tumor (Pancreatectomy) we need insulin to be substituted to live normally. This type of disease caused by primary damage to beta cells is uncommon, and is

called the type I diabetes and needs life long supplementation with insulin. We know of many short cuts like, insulin leaves and special ashes, but none of them is yet to surpass the efficacy of insulin. Till the discovery of insulin, the average life span of a person diagnosed with type I diabetes was only 6 months. With the extraction of insulin, the outcome changed phenomenally such that many of them lead a normal life. In recognition of this outstanding contribution by isolating insulin, the Nobel committee awarded the inventors, the highest honour within couple of years of its discovery in 1924. (Usually Nobel committee takes couple of decades before recognizing a scientific achievement.)

But the commonest way diabetes sets in our population is very different and is because of aging and 'overuse' of the beta cell function. This type of maturity onset diabetes, the type II diabetes, is preventable in the majority or can be postponed by decades by preventive action. Over use of the beta cells is the hallmark of 'industry driven living'. The recognition of this simple fact forms the corner stone for all these public messages on this World Diabetes Day. If we consider diabetes as a disease of aging, especially in those with a family history for early onset diabetes, then with modern living we are inducing 'premature aging in our body'. We Keralites need to wake up and work together to put out the wildfire of diabetes



Kerala is competing to become the World capital of diabetes. This year the slogan for the World Diabetes Day on November 14th is 'Act on Diabetes Now' This call for action seems to be the most relevant health message for Kerala.



world diabetes day

in Kerala. When our blood sugar level starts rising, during fasting (above 126 mg/dl) or after a meal (above 180mg/dl), it essentially means that, we have used up more than 80% of our beta cell function. So if any of our family members have diabetes, we need to try our best to minimize the over function to our beta cells.

How are we overusing this nature's wonder, the glucose insulin fat axis?

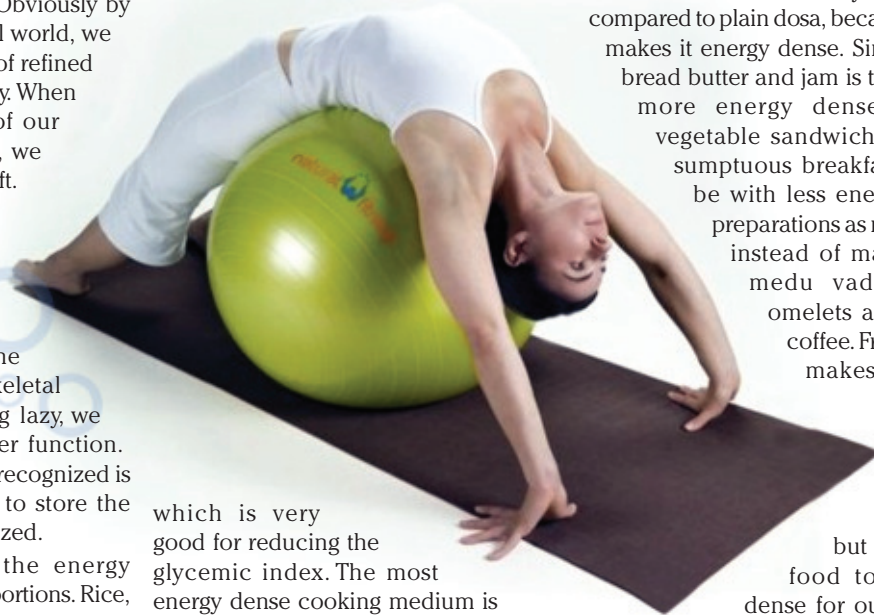
This wonderful axis can be made to function in excess of its ability, i.e. hyper function, and to fail early by either over eating, remaining lazy or by having a damaged storage system. Obviously by overeating in this industrial world, we are pumping in too much of refined food products into our body. When this exceeds the ability of our pancreas to cope up with, we are loosing this nature's gift. The other way is to use less of what we eat for every day activity by remaining Lazy in the modern comforts. The most sensitive tissue in the body for insulin is the skeletal muscle, and by remaining lazy, we necessitate beta cell hyper function. Equally important but less recognized is the inability of our body to store the excess fat that gets synthesized.

Overeating reflects the energy intensification of our meal portions. Rice, wheat and pulses on an average have 350 calories per hundred grams. But when you cook them traditionally, they get hydrated and mixing them with leafy vegetables, bran and making them as porridge, makes them less calorie dense to a value of 100 calories per 100 Gms. On the other hand the marketed bakery products, refined Atta and sugar, retains their energy intensity to 400 calories per

100 gm in most of the marketed products. One small disadvantage of porridge is that the cereals are well cooked, and so can get absorbed very fast and increase the blood sugar level, a factor that is described as the high glycemic index. But all refined food products have this high glycemic index. There is nothing to choose between rice and wheat for a diabetic person. We judiciously ask them to change from one to another in the hope that, because of the non-habitation, the person will eat less of wheat if he is a fan of rice. But wheat is easier to get in the raw form, so that we can incorporate the bran in cooking,

Like potato and tubers, we have energy dense fruits; banana, mango, pineapple, and jack fruit. These food substances are calorie rich and could be taken as breakfast or meal substitutes and not along with them. These energy dense fruits are to be used with caution by diabetic individuals. The transformation is well evident in Kerala. When I used to travel from Trivandrum to Madras by train in 1970's only thing we get at railway stations were guava, pear, oranges, plums, and cucumber and nuts. Now we get only banana fry, vada, samosa, bread omelets, and chips.

We need to change the cooking habits. Masal dosa is doubly dense food compared to plain dosa, because potato makes it energy dense. Similarly the bread butter and jam is three times more energy dense than a vegetable sandwich. Taking a sumptuous breakfast should be with less energy dense preparations as mentioned instead of masal dosa, medu vada, boori, omelets and then a coffee. Frying food, makes the food tastier



which is very good for reducing the glycemic index. The most energy dense cooking medium is the oil, and hence frying or adding oil or butter is the worst way we make the food energy dense. Of the naturally available food substances, fiber rich vegetables like the onion and green leafy vegetables are therefore best in terms of low calorific value. Among the fruits, watermelon, papaya, pear, apple, guava are the best because of their low calorie content and richness in vitamins, minerals flavanoids.

and last longer, but makes the food too energy dense for our body to handle. The best way, to use oil is to limit it in the kitchen for seasoning. Groundnut, coconut, and cashew nuts are energy dense and we need to limit its use.

To be concluded in next issue

The writer is Professor of Cardeology, Sree Chithra Thirunal Institute of Medical Sciences and Technology, Thiruvananthapuram



IFFK



■ DEEPIKA SUSEELAN

IFFK 2011

A Curtain Raiser

Kerala, one of the 50 must see destinations of the world, abode of coconuts, has as much variety in colour, texture and experiences that takes more than a lifetime to live and absorb completely. The State also boasts of one of the most cine-literate and discerning audiences in the world. Cinema and politics are two abiding passions of the people here. Bizarre experiments in the medium, which has few takers elsewhere, find vociferous votaries here.

The International Film Festival of Kerala is an yearly event organized by the Kerala State Chalachitra Academy (Kerala State Motion Picture Academy) on behalf of the Department of Cultural Affairs, Government of Kerala. The festival is recognised by the FIAPF thus making

it part of a prestigious circle of specialised festivals. The 16th edition of IFFK will be held at Thiruvananthapuram, the capital city of Kerala from 9th to 16th December 2011.

The Festival is an endeavor to showcase, nurture and support existing and emerging creative filmmakers with diverse visions internationally. The Kerala State Chalachitra Academy (KSCA) has always lived up to its promise to continue to support local and international filmmakers. It is evident that IFFK has bought a powerful cultural voice to the city and created a positive influence on local film artists and film aficionados.

International Film Festival of Kerala is renowned for discovering and promoting the best in International





AWARDS

The Competition Section of IFFK is restricted to films from Asia, Africa and Latin America

The Golden Crow Pheasant Award

Suvarna Chakoram and a cash prize of Rs. 1,000,000/- (about US\$20,000) to the best feature film to be shared equally by the director and the producer.

The Silver Crow Pheasant Award

Rajata Chakoram and a cash prize of Rs. 300,000/- (about US\$6,000) to the best director.

Best Debut Film Award

Rajata Chakoram and a cash prize of Rs. 200,000/- (about US\$ 4,000) to the best debut director.

Audience Prize Rajata Chakoram

Cash prize of Rs. 100,000 (about US\$ 2,000) to the Director of the most popular film voted by the festival delegates.

FIPRESCI Award

A FIPRESCI Award for the best film chosen by the Fédération Internationale de la Presse Cinématographique.

FIPRESCI Award for the Best Malayalam Cinema

NETPAC Award

Netpac award goes to the best Asian film in the competition section.

Netpac Award for the Best Malayalam Film.

Hassankutty Award

Hassankutty Award for the Best Indian Debut director (Rs. 50,000/- and memento) constituted by Ms. Mira Nair in memory of her Assistant Director Late Hassankutty.

Cinema and for heralding and debating changes in film making. There are hundreds of very active film societies in the State. To satisfy their quest for the best and the latest in the medium has always been the sole aim of the people behind the festival.

IFFK boast's of an exclusive and extremely popular Competition section restricted to films produced or co produced in ASIA, AFRICA & LATIN AMERICA within the last year of the festival cycle. The usual sections include world cinema, documentaries (in film formats), short fiction (in film formats), retrospectives, homage and tributes.

Over the years, the festival has attracted an ever increasing number of entries and our distinguished juries have a tough choice in deciding on the prizes. The International Competition Section of the festival is meant for films from Asia, Africa and Latin American countries. From over 300 entries, as usual, the Preview Committee has selected 14 films for the Competition section which also includes four Indian Films.

- The Mexican film A Stone Throw Away/A Tiro de Piedra directed by Sebastian Hiriart tells the story of a man who experiences visions, potentially of things to come and finally sets out to seek the meaning of his strange visions.
- The Chinese film Black Blood by Miaoyan portrays, an ecological disaster, a village where water is more valuable than blood;



- Turkish film *Body/Vucut* by Mustafa Nuri is the story of a porn actress Leyla.
- The Iranian film *Flamingo No.13* by Hamid Ahmadi Tofighi is about an exile Solaiman who is obsessed with flamingo hunting.
- Kenyan film *Ndoto za Elibidi* by Kamau Wa Ndung'u and Nick Reding pivots around the theme of acceptance and love as the protagonists – parents, four daughters and their lovers – come to terms with HIV and ghetto life.
- Philippine film *Palawan Fate/Busong* by Auraeus Solito depicts the indigenous Palawan concept of Fate or instant Karma.
- Syrian film *September Rain/ Matar Ayloul* by Abdellatif Abdelhamid evokes the family and community dramas of two generations.
- In the Argentinean film *The Cat Vanishes* by Carlos Sorin a psychotic break has fractured Luis and Beatriz's marriage.
- The Colombian film *The Colours of the Mountains* directed by Carlos Cesar Arbelaez portrays 9 year old Manuel who dreams of becoming a great goalkeeper; *The Painting Lesson* directed by Pablo Perelman features the son of a poor single teenage girl who turns out to be a gifted painter.
- The Indian films in the Competition section include *Prasanth Nair's Delhi in a Day* (Hindi), *Abosheshey* (Bengali) by Aditi Roy and the Malayalam films *Adaminte Makan Abu* by Salim Ahamad and *Aadimadhyantham* by debutant Sherrey.

The other Indian films for the festival being 7 films each in the Indian Cinema Now and Malayalam Cinema Today sections. In its bid to promote Malayalam Cinema, the seven Malayalam films selected for Malayalam Cinema Today section will be given a grant of Rs. One lakh each which would be shared by the Director and the Producer. Among the 29 Malayalam entries, the films which made into the Malayalam Cinema Today section include *Akam*, *Karmayogi*, *Khaddama*, *Pakarnattam*, *Pranchiettann* and the saint, *Sankaranum Mohananum* and *Traffic*.

The World Cinema Section includes over sixty outstanding films from all over the world. *Pina*, a film on incomparable dancer and choreographer Pina Bausch, the leading influence in the world of modern dance since the 1970s, *Breakfast Lunch Dinner*, *Chongqing Blues*, *Dance Town*, *Facing Mirrors*, *Jean Gentil* are the prominent films. The Curated sections include Retrospectives of exceptional filmmakers like *Djibril Diop Mambety*, *Nagisa Oshima*, *Robert Bresson*, *Adolfas Mekas* and *Philippine Cinema*. A special section for all Football lovers can also be expected. And of course much more to be revealed.

On the whole the 16th International Film Festival of Kerala promises to bring a bouquet of best films from all over the world offering a visual treat along with a platform for intellectual debates. Let's keep our fingers crossed till the festival curtains go up and the celebration of the hues of life begins.... ■

Rice Specials

Curd Rice

Ingredients: Rice - 1 cup
Milk - 2 cup
Curd - ½ cup
Green Chillies - 2 nos., chopped
Curry leaves - few
Urad dal - 1 tsp
Ginger chopped - 1 tsp
Mustard seeds - ½ tsp
Salt - to taste
Oil - 1 thsp

Cook rice with salt to a soft consistency. Mash and when cool add the milk and curds. Heat oil and add the urad dal and ginger and curry leaves. Add to the rice and mix off the gas when it thickens. If the curd rice is to be kept for a long period, reduce the curd and add more milk.





Ghee Rice

Rice - 1 cup | Water - 2 cup | Onion - 1 No
Green Chillies - 2 nos | Cardamom - 2 nos
Garlic - 4 flakes | Ghee - 4 thsp
Clover - 4 nos.
Salt - to taste | Ginger - 2" piece
Cinnamon - 1" piece | Coriander leaves - 2
thsp; chopped
Smash ginger, garlic, cardamom, cloves,
cinnamon and green chillies. Heat the
ghee on slow fire. Fry sliced onions until
it becomes golden brown. Remove the
onions from the pan and fry the smashed
masala. Add the water, salt and rice. After
boiling it, reduce the heat and continue
cooking in low fire till rice is cooked and
water has dried. Add coriander leaves.
After serving in dust decorate with fried
onions.

Lime Rice

Cooked rice - 1 cup | Mustard seeds - ¼ tsp
Urad dal - 2 tsp | Chopped garlic - 1 tsp
Chopped green chillies - 2 tsp | Cashewnut - 6 nos
Curry leaves - a few | Turmeric powder - a pinch
Oil - 1 thsp | Lime juice - ½ a lime's
Salt - to taste

Heat oil in a frying pan, put in mustard seeds and when it splutters, add cashew, urad dal and garlic. When dal is slightly brown, add the other ingredients, cover the pan and cook for 5 minutes over a low fire. Add lime juice and remove from fire. Add to the cooked rice and mix well.



Tamarind Rice

Rice - 2 cups | Tamarind - 1 gooseberry sized ball
Asafoetida - a small piece or ¼ tsp | Channa dal - 2 thsp
Methi seeds - 1 tsp | Urad dal - 1 tsp
Mustard seeds, turmeric powder - ½ tsp each
Oil - 1/2 tsp | Red chillies - 6 nos. | Garlic - 4 pods
Salt - to taste

Soak, strain and collect thick tamarind juice. Soak channa dal and drain it. Fry asafoetida and powder it. Chop each chilli into two or three pieces. Heat vessel, add oil, splutter mustard, channadal, urad dal, add chillies and garlic and salt. Add turmeric powder, tamarid juice, salt, asafoetida powder and curry leaves. Boil till oil separates and floats on top. Cook and drain 2 cups of rice, add tamarind chutney and mix well.





RIO+20
United Nations
Conference on
Sustainable
Development

From Rio to Rio+20

A new compilation of statistical data by the UNEP, entitled "Keeping Track of our Changing Environment" spotlights the environmental changes that have swept the planet over the last twenty years. The full GEO-5 report will be launched next May, one month ahead of the Rio+20 Conference taking place in Brazil. The indicator report underlines the rapid build up of greenhouse gases to the erosion of biodiversity and the 40 per cent increase in the use of natural resources-faster than global population growth. At the same time, the report also underlines how the world, when it decides to act, can dramatically alter the trajectory of hazardous trends that threaten human well-being.

Following are some of the findings in the report: The percentage of slum dwellers has dropped from 46 per cent in 1990 to a third in 2010. The amount of CO2 per US\$1 GDP has dropped by 23 per cent since 1992. The contribution of renewable energy to the global energy supply stood at an estimated 16% in 2010. The global use of natural resources rose by over 40 per cent from 1992 to 2005. A growing percentage of the world's forests are ones that have been replanted-an area equalling the size of a country like Tanzania. Food production has risen by 45% since 1992. By 2015 nearly 90 per cent of the population in developing regions will have access to improved sources of drinking water, up from 77 per cent in 1990.

Unanswered questions persist after Nuclear reactor safety tests

All nuclear reactors in Europe underwent 'stress tests' to identify any safety concerns. This was in the aftermath of Japan's Fukushima nuclear disaster. Some of the test results released



have become a worry for people throughout Europe. They show alarming gaps in whether reactors in Europe can withstand emergencies such as earthquakes, floods, terrorist attacks, and the loss of power and cooling. It is alleged that despite promises, the possibility of the failure of multiple reactors (as

happened at Fukushima in March) has not been examined. The risks of a large airplane crash and the evacuation plans for towns and cities close to reactors etc. have been ignored. Further, Europe's fleet of nuclear reactors is rapidly ageing.



Agriotherium



PREHISTORIC FAUNA

roman uchytel e-mail:rom-u@mail.ru

Unbearable bear bite

Reconstructions of the skull of largest bear that ever lived reveal that the carnivore had the strongest bite of any land mammal. *Agriotherium africanum* was a giant short-faced bear that became extinct five million years ago. The extinct bear exerted the highest bite force with its large canine teeth. Scientists also found polar bears to have surprisingly weak bites.



Birds too Plan Food Security

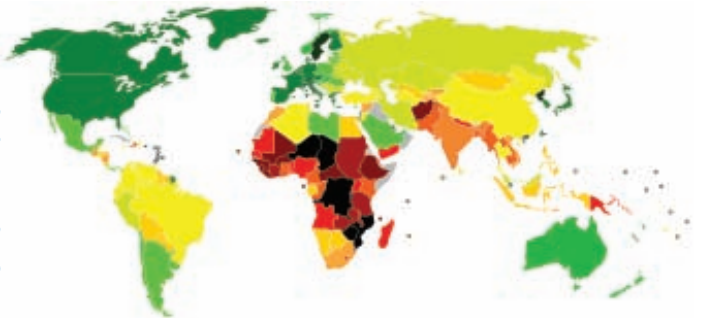
Experiments show that the Eurasian Jay birds store food that they will want in the future. It has been revealed that birds will hide more of the foods that they knew would be unavailable to them on forthcoming trips. Though this story is not the first of its kind, previous claims that birds "plan" in this way have been controversial. The findings are published in the journal *Biology Letters*.

Greenvision 2011

Photograph taken by Santhosh K. Jana of West Bengal which won first prize in the All India Nature Photography Competition jointly conducted by Information and Public Relations Department and Greens, the environmental organisation of the State Secretariat employees.



Norway tops in UN's annual HDI



Norway retains its top position in UN's annual Human Development Index. The HDI combines measures of life expectancy, literacy, school enrolment and gross domestic product per capita. This year a record 187 countries and territories were measured up from 169 last year. When the HDI is adjusted for economic inequality, the US falls from four to 23, the Republic of Korea (ROK) from 15 to 32, and Israel from 17 to 25. South Asian countries still grapple with gender disparity. Sweden, the Netherlands, Denmark and Switzerland head the rankings, followed by Finland, Norway and Germany in gender equality.

Indigenous Herbal Shampoos for Healthy Hair

Much before toilet soaps, moisturizers, shampoos and hair conditioners were even heard about, the women folk of Kerala used to apply the soapy extract of certain plants to clean and condition their long tresses. These indigenous herbal shampoos were locally named 'thalis'. The normal practice for Keralites in the earlier days was to massage plenty of oil, preferably, gingelly oil to their hair and scalp for some time, before bathing and washing it off using the thalis. This helped them in keeping the head and body cool, in reducing body heat and also in preventing the scalp from getting dry.

Today's market is flooded with chemical shampoos and it is probably next only to soap, heading the list of consumables. They boast of deriving them from a host of natural elements from eggs to aloe vera, amla, nuts and others alkaloids. In olden days, various herbs were crushed or ground to paste, juiced or powdered to make these thalis. Some of the thalis which are used even now, though not commonly are the following:

Chemparathy thali (Hibiscus/Chinarose shampoo)

It is the most popular thali and probably the oldest in use, prepared from the common shoe flower, locally known as chemparathy in Kerala (Hin. Japaphool, Sadaphool). The plant is a widely distributed, woody shrub botanically known as *Hibiscus rosa-sinensis* (Malvaceae), the leaves and flowers of which are richly mucilaginous.

The dark green thali is prepared afresh

every time by rasping the leaves, flowers and buds of red chemparathy against a rough surface, squeezing the mass with hands repeatedly in limited quantity of water (a wet grinder can be used instead) and straining. The juice is highly mucilaginous and soapy. It can be massaged on to the oiled scalp and hair for a few minutes during bath. In addition to cleaning the hair to a lustre, it also acts as a coolant for the scalp. Regular application can also tackle hair fall and dandruff.

Cheevakkai (Shikakai) Shampoo

Shikakai is the fruit pod of the tree *Acacia concinna* (Mimosaeae). The powdered pods are considered a superior cleanser for lustrous, long hair and has been reported as promoting hair growth and preventing dandruff. Because of these benefits, this was named 'shikakai' which literally translates as 'fruit for the hair'. The paste made from shikakai lathers moderately and cleans hair beautifully. It has a natural low pH, is



extremely mild and doesn't strip hair of natural oils. This ancient product is probably the world's original pH balanced shampoo. Being a natural conditioner for hair, it strengthens hair roots and promotes luxuriant growth at the same time maintaining silkiness and bounciness.

Often, shikakai is supplemented with various other items like amla (*Phyllanthus emblica*, Euphorbiaceae), fenugreek, green gram, curry leaves (*kariveppila*, *Murraya koenigii*, Rutaceae) and hibiscus flowers which are dried along with the nut and powdered. The mixture is applied as a shampoo after soaking in water for sometime. Amla, fenugreek and hibiscus have a cooling effect and aid in hair growth; Curry leaves and amla aid in darkening of hair and prevent dandruff.

Cheru Payar (Green Gram) Thali

Powdered green gram (Mal. Cheru payar, Hin. Moong, *Phaseolus aureus*, Papilionaceae) soaked in water has been



in popular use as a substitute for soap to clean the hair and body. It is excellent as a natural moisturizer and conditioner.

Mylanchi (Henna) Thali

A paste made from the leaves of the henna (Hin. Mehendi) shrub gives the hair, body and bounce, promotes hair growth, checks premature graying, combats dandruff and hair loss. It is also a popular natural hair dye.



Uluva (Fenugreek) Thali

A fresh paste made by grinding previously soaked seeds of fenugreek (*Trigonella foenum-graecum*, Papilionaceae) worked through the hair and scalp forms an excellent cleanser, coolant and conditioner for the hair. It also helps to give a rejuvenating effect to the hair strands.

A mixture of equal parts of fenugreek and green gram powder soaked either in water or yoghurt can be used as a hair pack, 10 minutes before bath. This is very good as antidandruff and as a hair conditioner.

Kadalamaavu (Bengal Gram Powder)

Powdered bengal gram seeds (Mal. Kadala, Hin. Chana, *Cicer arietinum*, Papilionaceae) made into a paste with water forms an excellent shampoo to clean oil and dirt in the hair. Like green gram powder, this maintains lustre and health of hair and also the skin.

Kurumthotti Thali (Bala Thali)

Another effective hairwash is the paste made from the medicinal herb kurumthotti (Hin. Bala; *Sida rhombifolia*, Malvaceae), which is well documented for its use against rheumatism. Besides removing oil and grime completely from the hair strands, this keeps the scalp cool for an entire day.

Padappan Thali

The richly mucilaginous material prepared by grinding the leaves and stems of the creeper padappan (*Ellipanthus thwaitesii*, Connaraceae) is excellent for cleaning the hair and scalp. This also gives softness and a glow to the hair.

Thiruthali Thali

Another popular thali is the paste made from the leaves and vines of the herb thiruthaali (*Ipomoea sepiaria*, Convolvulaceae), a member of the auspicious 'dasapushpa' found growing profusely on the hedges of the Kerala countryside. The plant is a twining herb with cordate or heart-shaped leaves blotched with brownish or purplish

patches towards the centre.

Vaaka Thali

The paste made by grinding the bark and flowers of vaaka (*Albizzia lebeck*, Mimoseae) tree makes an effective thali to keep the hair and scalp tidy.

Enna Thali

The thick mucilaginous extract of the younger glossy leaves of the medium sized tree *Litsia glutinosa* (Lauraceae) resembles gingelly oil in colour/appearance and hence the local name enna thali (Mal. enna= oil). It is a very good cleanser for hair, imparting a cooling effect.

Thulsi Thali

Thulsi or Indian basil (*Ocimum sanctum*, Lamiaceae) and Sandalwood (Hin. Chandan, *Santalum album*, Santalaceae) are also used to make hairwashes, though rarely. Thulasi thali is especially good to get rid of lice from hair.

Kurumulaku (Pepper Vine) Thali

The vines of pepper (Mal. Kurumulaku, Hin. Kali Mirch; *Piper nigrum*, Piperaceae) after being kept above burning hearth for a few minutes can be crushed and squeezed to extract the juice, which forms an excellent thali. This is especially useful against common cold.

Paadathali

It is prepared by crushing the heart-shaped leaves of the herbaceous climber *Cyclea peltata* (Menispermaceae), squeezing the mass with water and straining. It is commonly used as a shampoo for the children. When kept for sometime it gets solidified to form a gel and hence the extract is to be used soon after preparation.

Vellilathali

The extract of the leaves of the plant

Contd. on Page 48





Of Mother and Childhood

Nalappat Balamani Amma was a philosophical enigma, whose poems convey the purity of motherhood. Hopes of the mother are depicted in most of her poem~with divine sentiments. Bringing up her four children had been a mirthful experience to her which made her poetry something like the caressing of pure innocence. Eminent Malayalam critic Kuttikrishna Marar's commentary added luster to her poems. Marar says: "When I met her first, she was a shy girl of an aristocratic family; now she is the mother of four kids, famous already as a Malayalam poet, yet she has not changed in her attire, in her expression, in her behaviour from the girl I saw first." A unique, almost saintly, expression adorned her face always. Marar says that members of Nalappat, her ancestral home, maintained malice towards none, poetic rever used to be a heritage, and they were always ready to transform the house into a hermitage. Their maternal uncle, the renowned poet and writer Nalappat Narayana Menon's throbbing poetic presence spread an aura of sanctity even after his death.

Instead of a child remembering

his mother, a mother remembers how her child grow in Balamani Amma's poems. Maternal love, the lullaby and the flower-like smile of the toothless mouth, the over flow of rhythmic maternal emotions in her breast and the forgetting of everything in the presence of the infant find articulation in her poems. Imagination sprouts in the mother poet when she sees the toothless smile of the infant lying on her lap after drinking the nectar of the mother's breast.

The first time she cuddled the soft body, her soul was in ecstasy. The thrill of it was transmitted in to word-form along with the emotions. That was a source of great strength to the mother in her. A real festivity and celebration reverberated in her heart and then around her when the first baby came out decorated with saffron on head. As Maharshi Rajneesh says, the moment a child is born, the mother is also born. Both Amma (Mother) and 'Kudumbini' (Housewife) are said to be the source of great exultation in the poem. It was a pilgrimage of absolute peace, something very sanctimonious. So says Kuttikrishna Marar. The mother forgets her excruciating labour



pain the moment she hears the first cry of her baby. The baby sucks the breast for the first time, the mother controls its holus-bolus drinking to prevent suffocation. A daisy tongue plays pranks with the nipple while the little hand squeezes the other nipple, Motherly instinct mellows into an indescribable emotional summit Life now is not a trifle, it is something very serious and worth living. Balamani Amma has no difficult pitching this motherhood emotions and feelings in word form, and an excellent poem is born consequently. She felt groovy in the presence of the infant while the poet in her made creative order of words culminating into poetic delicacy. Giving milk to the infant for the first time, seeing the innocent toothless smile, trying to stand' and walk , babbling the first word etc. give inexplicable emotions to a mother. The evolutionary steps of growth are keenly observed by the poet

and she dandled words along with the infant and resplendent ideas of a poet are incorporated to mother-like feelings.

"Darling, the weakness of the mother-milk,

Will never add imperfectness to thee"

The elder boy's quizzing about the emergence of his sister, about the place from where she came from etc. evokes strange feelings in us. Another question posed is: "Mother, when shall I be as big as you?" Perhaps all these are regular house hold experiences of an ordinary mother, but when we read them in her poem, we feel something new. We are uplifted into an entirely different world by the style she adopted. Her philosophy and metaphysical ideas are concealed and subject to analysis in each line of the' poem. The presence of God, Truth or Beauty in each line of the poem scintillates with brilliance. Through the physical description of a mother-child,

relationship, she carries us to a world of spirituality.

It is the altruism of motherhood that connects the physical with the spiritual. She doubtlessly asserts that the homely thoughts are godly for a house wife. Works in the kitchen, nursing her beloved kids and serving her husband become sublime obeisance to God.' Any aberration from her routine becomes devious and heinous. The poet observes the rise of the moon and the exquisite horizon which inspires her to write a few lines, but the innocent baby on her lap imparted life to her words more. An ocean of romantic bubbles rose and some of them burst out. A poem is born on its own even without pen and paper.

Her maternal love rolled out in tears preventing her full view of her dear one. That flower-like, softness of its face brought forth sublime ideas in her which makes her vow to be ever in service and transcends her into 'Tapasakthi', a penance that only a mother can imbibe. A vocal music was born out of that beautiful mouth, the meaning of which was not easily decipherable.

"Alas, that divine language is unknown.

Even to the most intelligent ever born."

In the abode of her husband, the wife and kid acquired more divine pleasure and she or he does not have an iota of lust. It was an atmosphere of maturity, sacrifice and unity of souls." Her husband looked at her and their child; he was ferreting out the greatness of maternity. What binds him with his wife, or the sacred thread that keeps them united was the baby. She offers her darling baby to her husband who shed' the coolness of rose petal on his breast.

The mother was always anxious about the future of her child who was the light of truth to her. The baby waddled, fell down, rose up and again took two or three steps. It was a practice to learn how to walk in life. At times she helped her baby walk. Then she remembered who



she was to teach her baby to set foot on this miry, stained universe! Who had authorized her to extend a hand to the falling child? Each time a helping hand is extended, the baby's wading acquired a pace. The mother feared to shower too much love because love itself was a kind of incarceration and it demands total subjugation.

"From my lap slipped to Earth
The vastness of Earth.
'And I, the mother is in anguish
Lest she falls."

The mother was aware of the stark reality that any hindrance she created would be an obstacle to her baby's onward march in life. A soul had begun the life's journey, the 'whole' universe would look after her with fondling care.

Indian philosophical view keeps the mother between her children and her husband demanding a unique status of great sacrifice. Family relationship was woven dexterously and the mother shines with scintillating brilliance.

The child had a number of curiosities as he grew. His mother had to answer them.

Where did the infant come from?

That was the first question. The same question might have been bounteously raised from generation to generation. It was a sweet curiosity very difficult to clarify. The small seed of the gigantic tree too might ask so. She had breast-fed her son, but she could not produce a drop

to quench his curiosity! "Mummy knows nothing!" That was the conclusion of the boy.

The boy too wanted to grow up like his mother, but when? Here the time wheel concept becomes more relevant, the philosophy that we reach where we have started. Earth revolves, morning, noon, evening and night repeat while the pensive mother heard again;

When shall I be of your size, mummy?

A mother is duty-bound to nurse the baby, motherhood is the process that takes us to the abode of God. The mind was like a lake filled with lotus, tranquil without waves. From the vacuum emerged out a nice lotus. Rays sublimely stooped to look through the darkness. Dawn appeared before the mother. She welcomed it with open arms. Also the rising golden rays of the Sun and the chirping of innumerable birds. Up they fly bringing about great solace and happiness to the world.

"The Sun's morning rays never stoop
To see the vast dark expanse.

So far the infant desisted from all sins, he disliked what he should not see. His babbles were sacred to the holy hibernation of the mother. The child wanted to see the early dawn sky, he wanted to hear the birds' lullaby and see them float under the canopy.

Everywhere there was a pleasant fascination. The mother had forgotten everything as her baby stood within her

arms. Mother Nature's smile was pellucid while the mother expressed her caution in accepting unethical situations. Only sweet dreams were welcomed. Blessings of the Almighty were the result of the good deeds of the mother. She saw the benevolent God in her son while she was ever vigilant to serve him. She heard the flute of Lord Krishna that spread eternal peace. She remembered that the eternal, unchanging state of "Oevas" (gods), ageless and vibrant, and tried to compare with the stages that human beings undergo. She saw Venugopal, child Krishna with flute, in her son. Finally she remembered service without bothering about results which enabled her to see God in her child.

Balamani Amma's sense of observation and her talent to convey her motherly emotions in words are explicit in her long philosophical poem "Amma". (The Mother) Great men think alike. Remember what Edgar Allan Poe wrote:

"Because I feel that in the heaven above

The angels, whispering to one another,

Can find among their burning tears of love,

None so devotional as that of "Mother",

Therefore, by that dear name I have long called you,

You who are more than mother unto me." ■

The writer is Principal (Retd.)

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Disturbing Reflections...

through Malayalam! Quite unwarranted and despicable. While working as a lecturer in English at the University College, Thiruvananthapuram, I wrote in the Indian Express in January 1982 about this phenomenon – the article, 'Double Murder in the Classroom.' One who teaches English through Malayalam murders both the languages, Malayalam and English! Let me quote a few sentences from the article:

"In case the English Lecturer or Professor feels that he is talking above the heads of his students, he had better use simpler English and less complex sentence structure - it is, no doubt, more difficult a feat to perform. Only then will the students get an opportunity to expose themselves to a foreign language, the best way to make them learn it. Reading, listening to the spoken words, and writing – these are the methods by which one could learn a language. The English teachers who gleefully take to the less difficult way of teaching English, i.e., through Malayalam, are committing nothing but a hideous crime, the result of which might visit upon generations of students to come..."

"In this context I would refer to a discussion I had with Prof. G. Kumara Pillai, Retired Professor of English and the well-known Malayalam poet. He told me that he did not find it difficult to communicate even with school children through the exclusive medium of English when he had taught in a school before he joined the college as a Lecturer in English. True, he had to use very simple English, and it was rather a difficult task."

(Indian Express, 18 January and 1 February 1982; Dangerous Edge of Things)

In short, we have not done what we ought to have done for the preservation and promotion of our mother tongue, Malayalam, a hope and a dream we had on 1 November 1956. We need not worry about the 'Classic status' of Malayalam; let us do whatever is possible to promote its learning and ensure the wider use of our mother tongue. At the same time, let us not become language fanatics who look down upon languages other than their own. Besides, promotion of Malayalam must not be at the cost of any other language, especially English, one of the world languages over which we already have considerable mastery. Let us remember what Gandhiji said: he would not seek the betterment of India at the expense of any other nation, including Britain.

The writer is former Professor of English, University College, Thiruvananthapuram and Director of Cultural Affairs and Public Relations, Government of Kerala.

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footstep
can lead you through
the right path

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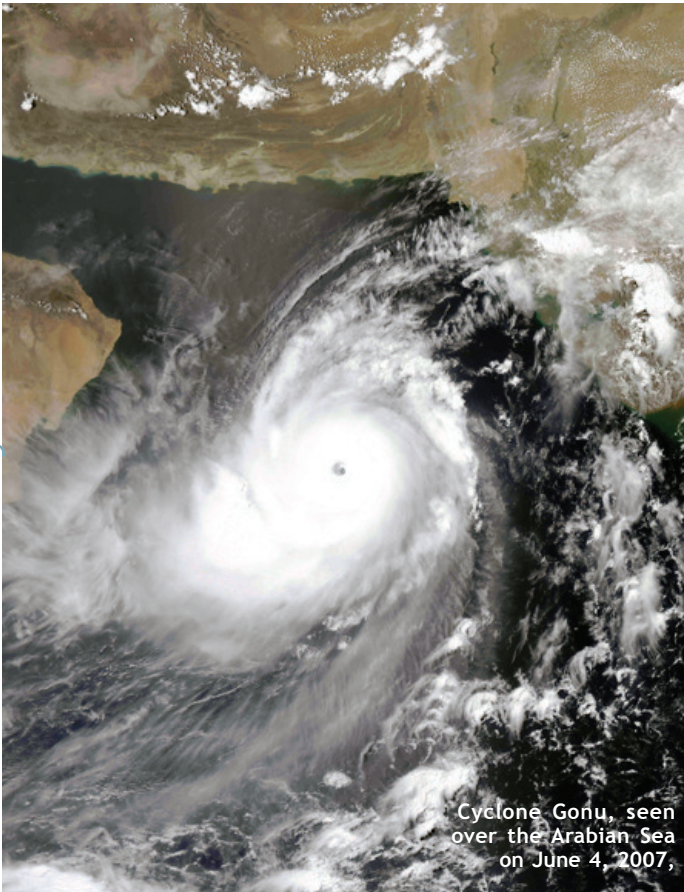
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Kerala Prone to Cyclones?



Cyclone Gonu, seen over the Arabian Sea on June 4, 2007,

Studies show that pollution in the Indian subcontinent can increase the intensity of cyclones in the near future causing havoc to men and materials. The wind movements over the past decades in the Arabian Sea are getting stronger promoting cyclones. A large and growing brown cloud of persistent air pollution hovering over northern India and surrounding regions has doubled – and occasionally tripled – the intensity of late spring cyclones in the Arabian Sea during the past three decades.

Within the past decade, several notable early-season tropical cyclones have ripped through the region. Gonu, the strongest, smashed through the Middle East in 2007, killing dozens and causing considerable damage. These big storms, which invariably make landfall, represent a new environmental impact that can wreak havoc on people from the subcontinent through the Middle East says a study in the

Nov. 3 Nature. One peculiarity of the Arabian Sea is that winds in the upper and lower atmosphere tend to blow briskly in opposing directions, in a phenomenon known as vertical wind shear which is hostile to hurricanes. Researchers found that in premonsoon months there had been a slow relaxation in the average vertical wind shear, from 11 meters per second to 8 meters per second. This seasons with a 3-kilometer-thick brown cloud of soot and other pollutant particles, known as aerosols, in the region’s lower atmosphere. This pollution has increased six fold in 80 years, the scientists report, and now filters roughly 10 percent of sunlight, preventing it from reaching the sea surface.

Computer analyses indicate that the pollution cloud’s cooling effect on the ocean below has slowed wind speeds in the atmosphere – and allowed storm intensities to mushroom.

Yoga aids chronic back pain sufferers

Yoga can provide more effective treatment for chronic lower back pain than more conventional methods, according to the UK’s largest ever study into the benefits of yoga. The study, led by the University of York and funded by Arthritis Research UK, found that people who were offered a specially-designed 12-week yoga programme experienced greater improvements in back function and more confidence in performing everyday tasks than those offered conventional forms of care.

The research focused on back function - people’s ability to undertake activities without being limited by back pain. Although improvements in back function were more pronounced at three months, researchers found there was still an improvement in people’s ability to perform tasks such as walking more quickly, getting dressed without help or standing up for longer periods of time after the classes had finished.

The yoga programme, which involved 20 experienced yoga teachers, was designed and delivered by experts in Yoga. Participants in the yoga programme were surveyed nine months after classes had finished and more than half of those who responded were still regularly practicing yoga, mostly at home, twice a week.



Computer software to revamp city parking



Tel Aviv University's Porter School of Environmental Science, has developed a computer simulator that models the real-life parking challenges of a particular district or city. The simulator, called PARKAGENT, takes into account real parking policies, drivers, and parking inspectors for an exact replication of any given city, including roads, buildings, and parking lots.

The simulator tests a new parking policy by implementing it into the PARKAGENT environment, gathering information on how these policies impact the drivers, who have individualized parking needs. The software takes into account their probable destinations, how long they require parking, and how much they are willing to pay. Policies could include a change in the duration of time permitted in a public parking space, the construction or closing of a parking lot, or the construction of a new building in the environment – all of which alter parking demand.

Eye movements confirm hypnosis

Strange eye moments during hypnosis which cannot be imitated suggest that hypnosis truly is an altered state of consciousness.

Though scientists found this ocular give away in few cases, the results say deeper studies are required. They studied a middle-aged, healthy and highly hypnotizable woman. Normally outgoing and chatty, when the woman heard



Compared with her normal state (top), a woman's "hypnotically induced stare" (bottom) may mark an altered state of consciousness.

“hypno,” she withdrew and fell quiet. Because one of the most striking changes was the appearance of a diffuse, unblinking stare, the researchers measured a series of involuntary eye features, such as pupil reflexes and quick movements.

Under hypnosis, the woman's pupils were smaller than in normal conditions. What's more, she had an abnormal pattern of small eye movements, called saccades, toward a target. The woman's saccades were shorter and scarcer under hypnosis, the team reports. A group of 14 people watched videos of the hypnotized woman and tried to copy her strange eye behavior. But they couldn't, suggesting that these eye movements can't be faked.

Mosquitoes to combat dengue fever

Oxitec, a British company spun off from Oxford University has announced the results of its field test of genetically altered mosquitoes to combat the infamous dengue fever. As they report in their paper published in Nature Biotechnology, the team found that their genetically altered males comprised 16% of those found in subsequent samples obtained from the area, and that they had engulfed 10% of the larvae. In past studies, insects have been genetically altered in ways that would make them sterile. Unfortunately, in most cases, the modified males were also apparently less suitable mates and therefore met with little success in mating. For this reason, the Oxitec team took a different approach.

Instead of creating sterile insects, they genetically altered male mosquitoes that produce offspring of both genders that die before reaching an age where they could mate. The idea being

that male mosquitoes altered in this way, when released in the wild, would mate with females and produce offspring that would not live long enough to produce offspring of their own. To keep the genetically modified male mosquitoes alive so they could breed with the females once they were released, they were given an antibiotic. Based on the results of their field test, it appears the population of the targeted mosquitoes would be diminished by ten percent. By expanding the field test to include more mosquitoes released, and doing so repeatedly, theoretically, the population could be reduced dramatically.



Chain of Love



A fast growing evergreen vine, climbing with tendrils, known for its dense green foliage and small delicate lantern shaped flowers in long trailing lovely sprays is the coral vine or 'Mexican Creeper' (*Antigonon leptopus*). It flowers in all seasons except for a short period during monsoon. In summer the vine produces large branching flower stalks on which clusters of small flowers are attached. The colours range from white to rose-pink. Actually the bright green foliage provides a handsome background for the big branched clusters of pretty pink flowers.

A native of Mexico, the coral vine is grown as a landscape plant. This vine will grow pretty well in almost any soil and needs full sun for best bloom. The

plant is propagated using seeds or half-ripe cuttings in summer. Avoid watering the vine excessively. It is better to leave the soil dry for a few days between one watering and the other. The plant loves organic foods like deeply dried cow dung or well rotten leaf manure. In particular, apply a low-nitrogen liquid fertilizer, monthly.

Prune the coral vine as it is necessary to keep the growth under control. Remove dead and broken vines and shape it properly especially after profuse flowering. A mix of two parts loam to one part peat moss and one part sand is ideal for the newly planted cuttings to root and establish. If the seeds are sown in a well-drained soil mix, it germinates in nearly three weeks.

Coral vine is used to cover fences or climb trellises with fresh green foliage and richly coloured flowers. It is also suitable for city gardens and traffic islands since it can withstand air pollution and any other limitations. When grown in limited places, do not forget to groom it by regular pruning. If you want to hide any unsightly views in the garden, allow the vine to grow luxuriantly. Moreover, the brilliantly coloured flowers attract hordes of bees and butterflies. Probably the long spike of delicate flowers gave coral vine its very famous nickname in Mexico, i.e., the 'Chain of love'.

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Indigenous Herbal Shampoos for Healthy Hair

called wild mussaenda or vellila (*Mussaenda frondosa*, Rubiaceae) is another popular thali. In earlier days, Kerala girls and women used to wear 'dasapushpam' (ten auspicious herbs) on their hair after a bath using the 'vellilathaali'.

Vetty Thali

The mature shining leaves of the plant *Aporosa* (*Aporosa chinensis*, *Aporosa villosa*, Euphorbiaceae) locally known as 'vetty' when extracted with water, yield a natural cleanser and conditioner for the hair.

Vendayila (Ladies finger leaf) Thali

Though rarely, the mucilaginous

extract from the leaves of ladies finger (Mal. Venda, Hin. Bhindi, *Abelmoschus esculentus*, Malvaceae) is used as a shampoo.

Banana Stem Shampoo

The thick round central 'stem' of banana (*Musa sapientum* / *M. paradisiaca*, Musaceae), known as kaalamundan, is sun dried and burnt. The ash so obtained, can be stored for long and used as a hair wash after making it into a paste with water.

Among these different hair washes, those prepared from leaves have to be made afresh everyday whereas the others can be prepared and stored for longer time. In addition to all these, many other

recipes involving local scattered knowledge have also been in use in Kerala to care for the head and hair. Many of these still remain undocumented. e.g. Plain boiled rice soup rubbed into the scalp for ten minutes prior to bath, cures dandruff and makes the hair strands turn silky.

All these indigenous applications are known for their potential to maintain healthy hair strands on a healthy and cool scalp without ever having a side effect, unlike the synthetic or chemical shampoos. Replacing chemical shampoos with purely herbal ones can save your head and hair. ■

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