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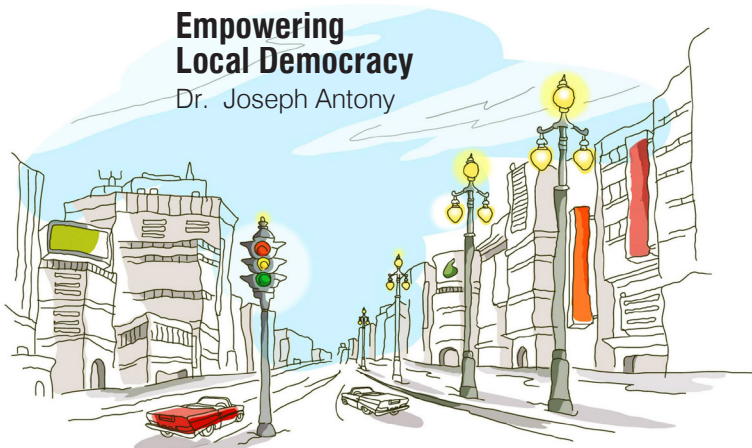
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EDITOR-IN-CHIEF Mini Antony IAS
CO-ORDINATING EDITOR C Ramesh Kumar
DEPUTY EDITOR - IN- CHIEF A S Santhosh Kumar
EDITOR K P Saritha
ASSISTANT EDITOR C Rajesh
SUB EDITOR Merlin J N
CIRCULATION R Anilkumar
DESIGN V S Prakash
DESIGN & LAYOUT R Ratheesh Kumar
rash8590070404@gmail.com
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Representatives:

New Delhi Dr. C Venugopal
Thiruvananthapuram C Suresh Kumar
Kollam K Abdul Rasheed
Pathanamthitta Kiran Ram
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- Information Office, Kerala House, 3, Jantar Mantar Road, New Delhi, Ph: 23343424

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EDITORIAL

Care and concern for the old age

Geriatric care is one of the biggest challenges that Kerala is facing at the moment. While several steps have been taken for ensuring quality geriatric care much needs to be done on this front to ensure quality of life not only for the aged but also for their care givers.

With the elderly population projected to go up from the present 13.5 per cent to 18 per cent of the state's total population in a decade, there is need for urgent addressing the core issues of aged people. Drop in birth rate and death rate have mainly contributed to the high percentage of elderly population.

At 72 years for men and 78 for women, life expectancy in the state is much higher than the national average of 69 years for both sexes. This too has resulted in the increase in population of senior citizens.

But the challenge confronting the society is to ensure quality life, regular treatment, sustenance and family support for the elderly. Health care for the elderly is not only expensive but elongated one because of the chronic ailments that set in during their twilight years. This often leads to neglect of their health care and maltreatment from their own kin. Sufficient care giving of the elderly has been decreased with the decline of joint family system.

Another major problem among the elderly in Kerala is the state of widows who constitute nearly 55 per cent of the total aged population. With most women spending their old age without spouse support, in solitude and lack of trained attendants, it is high time the problem of widows is to be addressed comprehensively.

Age related eye diseases, cataract, muscular degeneration, diabetic retinopathy and glaucoma affect a large number of them. But regular medical check-ups can help them in preventing onset of major diseases. Clearly a multi pronged strategy involving policy makers, NGOs, health care institutions and the public at large is required to deal with the issue of our senior citizens. As a society we definitely owe a lot to the elderly people who have contributed immensely in every sphere of our lives.



Gandhi was not, as is commonly imagined, against science and technology. On the contrary, he favoured science in its true essence.

Gandhi's Green Vision

Gandhi's vision embraced the fundamentals of existence, regardless of time and space. Nobody has spoken so poignantly and clearly on the dangers of industrial civilization, which he qualified as self destructive. Gandhi had sounded the warning already in HIND SWARAJ in 1908. Now after over a hundred years, we are slowly waking up to this realization.

This is the result of a growing realization that our present way of living is leading us headlong into disaster. Wherever development has made rapid strides, it has been accompanied by environmental

problems, social stratification and stress, water scarcity, soil depletion, air pollution and traffic nightmares.

Gandhi was not, as is commonly imagined, against science and technology. On the contrary, he favoured science in its true essence. He predicted that a new science of the future would take into account the realities of the spiritual dimensions and the resulting technologies would be very different from what we witness today – protecting rather than destroying ecology, healing the wounds of the earth and thus having a healing touch on the





so on.

The root cause of all the threats we face today was pinpointed by Mahatma Gandhi. He warned us about the dangers of industrialism, such as destruction of environment, depletion of natural resources, uncontrolled consumerism, domination of market, ruin of rural economy, increasing marginalization of the poor, displacement of labor, people's sovereignty over resources etc. He also experimented with and developed alternative practices which led to the formulation of his famous 'Constructive Programmes'

In modern terminology, Gandhi's strategy is modified in terms of pattern of growth, which preliminary uses

Nature has provided it to such extent that we can have it at no cost. But modern civilization has put a price even on air.

human psyche too.

But for the above vision to be translated into practice, we need to reverse the following five trends which have become necessary corollaries to our notions of what development is all about. Urbanization, heavy industrialization, commercialization, monetization, and militarization. Unless and until we discard our attachment to the above five as necessary elements of 'progress', we cannot implement Gandhi's notion of Swaraj at the societal level.

Gandhi pointed out in 'Indian Opinion', dated 1st

February 1913, the irony of the situation that one has to pay a price even to get pure air and water: "We have seen something of the structure of the body and have learnt that it requires three kinds of nourishment: air, water and food. Of these, air is the most essential. Consequently, Nature has provided it to such extent that we can have it at no cost. But modern civilization has put a price even on air. In these times, one has to go off to distant places to take the air, and this costs money... It would not, therefore, be quite true to say in modern times that 'air is free'.

And in spite of all the progress, we have the strange and anomalous situation of extreme poverty for at least 80 crore people; severe water shortage for more than 300 crore people; inadequate sanitation facilities for a huge number. There are many other unjust and iniquitous situations- ranging from gross violations of human rights, gender discrimination and huge military expenditure unending exploitation of natural resources and

renewable resources and a minimum utilization of non-renewable resources.

It should be noted that use of renewable sources of energy, evils of large scale industrialization and dangers of environmental pollution were recognised by Gandhi eight decades ago, as he put more emphasis on non-

violent upliftment of village economy and the utilization of labor-intensive technique of production.

When asked what type of machinery he approved of, Gandhi said in 1935: "Any machinery which does not deprive masses of men of the opportunity to labour, but which helps the individual and adds to his efficiency, and which a man can handle at will without being its slave". Mahatma Gandhi's views on machinery were not confined to a theoretical level. Perhaps more than anywhere else in the world, these views found practical application. They became an integral part of India's freedom movement.

The environment-friendly nature of Gandhian economics is further revealed when one notes the emphasis on the 'last man'. In such policy, poverty has been described as the most severe polluter. The Gandhian prescription of 'simple living' also attempts to put a check on unlimited consumption and unending exploitation of natural resources

In a speech at Ahmedabad meeting on 1-1-1918, Gandhi explained the importance of purity of air, water and food: "Air, water and grains are the three chief kinds of food. Air is free to all, but, if it is polluted, it harms our health. Doctors say that bad air is more harmful than bad water. Inhalation of bad air is harmful by itself and this is the reason we [sometimes] need change of air. Next comes water.



We are generally very careless about it. If we were to be sufficiently careful about air, water and food, the plague would never make its appearance among us."

In Gandhi's perspective this crisis is not an isolated issue. It is bound with other issues such as: industrialism (not industrialization), privatization, ruin of traditional agriculture, over consumption and,

consumerism. He rejected the modern civilization. For him it was a disease and a curse. "This civilization leads to violence, conflicts, corruption, injustices, mistrust and a process of dehumanization..."

Gandhi is now a source of inspiration and a role model for all those fighting against environmental destruction, violation of human rights, racial discrimination, oppression, war and

those who are working for a better world, a better quality of life. He is no longer an individual. He is the symbol of the alternative in all the areas of life- agriculture, education, industry, technology, economy, health, politics etc.●

The writer is former Secretary of Kerala Gandhi Smarak Nidhi and Fellow, LEAD International- Leadership for Environment and Development initiated by Rockefeller Foundation, UK

When India framed its Republican Constitution in 1950, the Constitutional fathers have structured the distribution of administrative power into two divisions – the Central Government and the State governments in India. It should not mean that they were ignorant about the modus operandi to address the issues of local governance. By drawing experiences from of old, they had included a provision in the Directive Principles of State Policy (Article 40) saying that: “The State shall take steps to organize village panchayats and endow them with such powers and authority as it may be necessary to enable them to function as units of self-government.” Indian history is replete with the experiments of local administration. The Indian epics like Mahabharata and Ramayana mentioned about the Panchayati system existed in those period. It was an accepted way of addressing local problems. The father of the nation, Mahatma Gandhi was also a great votary of this system. According to him “Gram Swaraj” was the sole panacea to solve the problems of rural India. So the historical experiences and Gandhijis love for “Gram Swaraj” had prompted the Constitutional fathers to include



Empowering

Local Democracy



provisions on panchayati raj in our Constitution. They too believed, like Gandhiji, that India lives in villages.

Although the Indian leadership under Nehru was successful in designing a new Panchayati Raj system for India, it was not strong enough to become a catalytic force to change the rural life. Naturally, it failed to empower the

rural populace to deal their problems effectively. Finally, the rulers of India realized the pitfalls of the weak Panchayati Raj system and decided to strengthen it with Constitutional backing.

The 73rd and 74th Amendment of the Constitution in 1992 was the right step in the right direction to address the

problems of rural and urban governance. It was in fact a revolutionary move to strengthen the local governance. Through this the local bodies became true local governments with some significant powers to redefine the life of the people they serve. Acts were capable of changing the destiny of both the rural and urban regions through the socio-economic planning. The new Acts were inclusive in nature and took special care regarding women and especially people belonging to dalit communities. As a result, they have got ample representation in the decision making bodies of the local governments. The provision to extend 50% reservation to women in the local government has helped about 1.5 million women to participate in the local administration in India. It is a record to be proud of. This is the genuine democratic exercise.



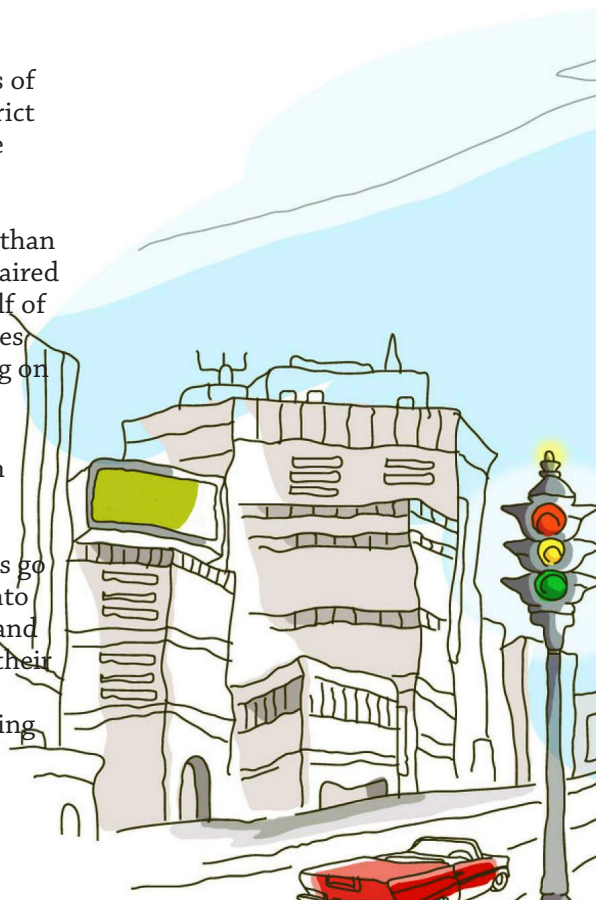


Kerala Going to Local Body Elections

The high literacy rate has made our state the hub of human resource, which we export to different parts of the globe.

The State of Kerala has a unique record in implementing the decentralization of power. It has made many experiments in the devolution power to the lower levels of administration by establishing District Councils, People's Planning, etc. The latest in the series is the decision to reserve 50 % seats at the local governments to women. Now more than half of the local governments are chaired by women. Moreover, more than half of the representatives in the local bodies are women. It is positively impacting on the socio-political matrix of Kerala.

Again Kerala has entered into an election mode. Now we are in search of persons who can lead our local governments to the next stage of development. This time the Keralites go to the polls when the State enters into its 60th year of formation. On 2nd and 5th November, people will exercise their franchise to elect representatives to entrust the task of solving the burning problems of local regions.





Responsibility of Voters



The divide between rural and urban regions in Kerala is too thin to distinguish. The Keralites are also exposed to the world compared to other states of India. The high literacy rate has made our state the hub of human resource, which we export to different parts of the globe. The money order economy has changed our life styles which have made Kerala a consumer state. Our appetite for electronic goods like computer, mobile phones, etc. with cutting edge technology has been producing great menace of e-wastes. The solid waste management is the

greatest issue before almost all local bodies.

Lot more issues have raising their heads which need urgent solution. The 73rd and 74th amendment to the Constitution has given the local governments many powers to address these issues effectively. As a result of the Amendment, the local governments have power on matters like: Agriculture, Irrigation, housing, drinking water, roads, health and sanitation, women and child development, social welfare, etc.

Kahlil Gibran termed citizens are the real emperors of any nation. It is the voters' responsibility to choose right representatives to lead us in solving the problems we face in an imaginative manner. So casting of vote is the first step to cast away the maladies from our life. ●

The writer is Associate Professor, Department of Political Science, University of Kerala

Population ageing will be the most important socio-economic and demographic phenomenon in Kerala throughout the first half of the 21st century and if appropriate and timely measures are not taken to cope with it, the quality of life not only of the old but of their care givers and of the rest of the population will be at risk. If this happens, this would contrast unfavourably against many plus points on the currently high quality of life of Kerala people. Kerala's elderly account for 13.5% of the total population compared to India's 8.3%. It is projected to 18% by 2025 and to more than 30% by 2050.

Challenges in

It is high time we took care of the Elderly



Fall in Birth-Death rate

The high percent of aged in the total population of Kerala is due to 2 major factors - Fall in birth rate and fall in death rate. Fall in birth rate has resulted in the birth of fewer children per couple, reducing their proportion in the total population. Increased longevity of life and lower mortality at later ages has been a major factor in increasing the number of older population. Currently life expectancy in Kerala is 72 for men and 78 for women against around 69 for both sexes in India. Control of killer diseases, revolution in health management technology and better standards of life, have greatly improved the health of the people and this has contributed to longer life span and lower mortality at higher ages.

Life after age 60, which we call old age, has several problems that do not exist or are of lesser intensity in earlier years. Foremost among them are fall in income, failing health- Increasing dependence on others, especially close kin- arising out of these two is a third factor. Even when an old has adequate finances to take care of him, he needs support in several areas especially if he is frail.

Twilight Years



60 + Women

The outnumbering of women among the aged population is another characteristic of ageing. Among the 60+, widows outnumber widowers. This is a worldly phenomenon. In Kerala, widows constitute 55% of old women while widowers constitute 18 among old men.

The proportion increases drastically as age increases, so much so that in the 80 plus age group, around 75% women are widows against 25% among old men. This means two things – more women have to spend their old age without spouse support and more old women have to live with disability that is characteristic of advanced age.

A major problem faced by the oldest old other than frailty and poverty is abuse from others, especially from own kin.



Thus, for most old women, the additional years of their life are fraught with diseases, loneliness and lack of proper care givers. Studies have found that among the 60+ who live alone 65% are women.

The actual problems of aging start around the age of 80 (sometimes referred to as the oldest old) when physical and psychological problems come out in full force. Up to 80 years, many old do not face the problems of aging in a significant manner. In India which is predominantly agricultural, many old persons continue to work after reaching 60 because they have no retirement age or social security, the number of people in the organised sector being very small. Health-wise also their problems are reasonably manageable but once one reaches the age of 80, the real problems set in.

Elderly Abuse

A major problem faced by the oldest old other than frailty and poverty is abuse from others, especially from own kin. While abuse has been found to be part of the experience of the old of all ages, it is faced more by the oldest old. Abuse takes several forms - physical abuse, financial abuse, psychological abuse and neglect in the field of health care, food and shelter. For several reasons the old would become unwanted to the young kin caregivers - financial problems, having no money to take care of

80 +

The 80+ constitute around 3% of the general population and 15% of the older population. A characteristic of this segment is that they grow faster than the 60+ and soon will form a significant proportion of the population of the aged.

Many of them are frail at that age. Old age diseases are not curable and treatment is costly and prolonged - diabetes, hypertension, cardiac problems, arthritis and of late cancer. Treatment being prolonged and costly, a large part of the savings of the old will have to be spent on disease management. It also tells upon the care givers who may be immediate relatives - son/daughter.

Even with one's own money, the old requires the help of someone to take care of him and of his finances. Since most would not have saved enough for their older days, they become a burden on their care givers. This will not always find favour with many care givers even when they are sons and daughters for whom the first priority is their own children. Even when the old has finances, the kin will be frugal since treatment of the sick old is considered at best unproductive and at worst a waste. In the developed countries, expenditure on healthcare of the old is much higher than that on younger ages.

them, especially their medical problems, no by-stander to attend on them while sick and so on.

Help Age India which has been conducting studies on abuse of the elderly in the past 4 years has found several forms of abuse but the sadder thing is that the son and the daughter-in-law are in the forefront in these abuses. What is more, abuse is progressively increasing.

The UN has been cognisant of this malady and, finding no appropriate solution, has designated June 15 every year as the World Elder Abuse Awareness Day (WEAAD). There is also a global association to prevent elder abuse - The International Network for Prevention of Elder Abuse (INPEA).

Ageing has come to stay and several of the problems of ageing both at individual and social/national level baffle solution. Most solutions have to be found at the family level. Unfortunately, the family's consideration for the old is weakening and the trend shows that there is no coming back to the traditional family where the old found protection and congeniality. This has put more burden on the state and the community. The question is to what extent are these agencies ready to take up the corrective roles to make the life of the old peaceful. ●

The writer is Chairman, Centre for Gerontological Studies, Thiruvananthapuram



Health Care of the Elderly

Ageing is a normal, inevitable, biological phenomenon. Ageing of population is a major emerging demographic issue and is an inevitable consequence of the demographic transition experienced by most countries.

Today, all over the world, there are around 600 million persons aged 60 years and over. Among these, majority of them belong to developing countries. There is a rising trend in the population of the older persons in India.

India has an estimated number of 100 million elderly citizens and by 2050 this is expected to increase to 315 million.

The population of the elderly in Kerala has been increasing rapidly in recent decades. The proportion of elderly (60+) constituted 10 percent of the population as per the 2001 census which rose to 12 percent in 2011. They play a critical role in promoting knowledge, by helping the community and families by sharing their experiences. The elderly population faces various physical, psychological and social problems. The elderly, especially those who are weak and/or dependent, require physical, mental and emotional care and support. The hospitalization rates are also

much higher in older people than the total population. The ageing scenario and specific problems of elderly demand interventions to take care of all aspects of elderly person's namely financial, psycho-social, health and safety to ensure a better quality of life for them. In Kerala the Department of Social Justice has been the key player in implementing programmes for the elderly in the state. Non Governmental Organizations (NGO) and private agencies also contribute towards improving the quality of life of elderly persons.

(Acknowledgment: Quike Study 2013-14)



Major recommendations for better medical care

- Health services should be more accessible to the elderly population. All government medical colleges should have full-fledged geriatric care facilities. There should be at least one major institution in a district, with trained staff, to provide comprehensive care to the elderly. Taluk hospitals and peripheral health centres should be equipped with trained staff. The hospital services should be elderly-friendly
- Elderly-friendly physical structures may be provided at health facilities. The hospital services should be elderly-friendly such as separate OPD or priority in consultation, preference in allotment of bed, free food, facilities for investigations etc.
- Training of manpower should be given priority. Doctors, nurses and peripheral health workers should be trained in geriatrics and community management of elderly.
- Strategies should be developed to ensure private sector participation in health
- Home-based medical care services, especially for incapacitated elderly, should be provided in rural areas by a team including doctor and paramedical staff from the local PHCs .Palliative care services should be more effectively implemented.
- Health care of tribal elderly needs special attention. Norms for providing financial support to tribal elderly for seeking health care should be redefined so that specialist health services and financial incentives are made more accessible.
- All needy elderly should be given one free nutritious meal every day. This could be provided through AWCs.
- All BPL elderly and those below the income tax ceiling should be covered by a free and comprehensive health insurance scheme to meet their treatment expenses.
- Vayomithram project should be extended to cover all parts of the state in a time-bound manner, after taking remedial measures to correct the deficiencies.
- Family support services
- Home nursing services need to be strengthened. Uniform and compulsory training in accredited centers should be made mandatory for home nurses.
- DCCs should be established in all Panchayats, with adequate infrastructure facilities and services.
- Other venues may be planned for the elderly to come together and interact eg. library and reading room, recreation centres, geriatric clubs etc.
- More emphasis should be given on value education.
- Multi-Service Senior Citizens' Centres may be started in each block panchayat for strengthening the family in taking care of the older persons
- Awareness generation on active ageing and existing welfare schemes should be given to the elderly. Mass media and interpersonal communication channels need to be explored.

The writer is Principal, Government Medical College, Thiruvananthapuram

Diabetes in the Elderly



PHOTO: GABRIEL

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management of diabetes in the elderly population is often difficult due to complex co-morbid medical issues and the generally lower functional status. Diabetes in the older adults may be incident (i.e. onset at 65 years or after) or it may be long standing. Very often, many age-related changes affect the clinical presentation of diabetes. Atypical presentation of a typical illness is common especially in people over 75 years of age. Homeostatic strain caused by the onset of a new disease often leads to symptoms associated with a different organ system, particularly one compromised by pre-existing disease. Thus the “weakest link” organ systems will manifest the symptoms. In addition, elderly people are at high risk for polypharmacy,

functional disabilities, and common geriatric syndromes that include cognitive impairment, depression, urinary incontinence, falls, and persistent pain. Aging is associated with sarcopenia, referred to as the universal and involuntary decline in skeletal muscle mass. This results in loss of muscle strength and contributes to the eventual inability of the elderly individual. A major mechanism of insulin action is facilitating glucose uptake by the muscle. A reduction in lean body mass leads to eventual inability to dispose glucose.

Treatment of diabetes in the geriatric population should be aimed at avoidance of hypoglycemia and addressing all basic metabolic abnormalities which includes management

of hyperglycemia, dyslipidemia, blood pressure and other abnormalities. With increasing duration of diabetes, there is a higher chance for complications. Fasting plasma glucose increases by 1-2mg/dl per decade and 2-hour postprandial plasma glucose increases by 8-20mg/dl per decade after 30 to 40 years. Though intensive glycemic control

is proven to be beneficial in the prevention and progression of microvascular complications in diabetes, the merits are largely offset by the fear of hypoglycemia which can be more fatal in the elderly.

New guidelines from the American Diabetes Association (ADA) and the International Association of Gerontology and

Geriatrics for treating diabetes in older adults have set goal that is much safer for patients older than 65. The new guideline does not recommend a fasting value below 90 mg/dl. The HbA1c have been set at 7-7.5% for elderly diabetes patients who are healthy. For those with multiple chronic illnesses or mild dementia, the A1c levels are set at 8%, and even higher at 8.5% for

Treatment of diabetes in the geriatric population should be aimed at avoidance of hypoglycemia and addressing all basic metabolic abnormalities



PHOTO: GABRIEL



PHOTO: GABRIEL

those in nursing homes or with moderate to severe dementia. The American Geriatric Society strongly recommends individualizing the target setting of diabetes care in the elderly. The aim should be to avoid acute episodes of hypoglycemia, hyperglycemia and associated problems such as urinary frequency, infection and slow wound healing.

The basic management concept in geriatric diabetes is based on the life expectancy of the individual. If the life expectancy is less than 5 years they are unlikely to benefit from intensive control of the blood glucose. According to the position statement by the ADA, for elderly who are functional, cognitively intact and with significant life expectancy, it is recommended to set goals

as in younger adults.

However, for those who do not meet this criteria it is advised to relax the glycemic goals and to avoid risk of hypoglycaemia. Adverse drug reactions are common since age related changes can affect drug disposition in the body. This can be aggravated by the use of complex regimens or higher dose of certain medications. Therefore, the risk-benefit ratio must be assessed to ensure safety, efficacy and compliance. Goals of therapy for elderly diabetic patients should include an evaluation of their functional status, life expectancy, social and financial support, and their own desires for treatment. A full geriatric assessment performed

before establishing any long-term diabetes therapy may aid in identifying potential problems that could significantly impair the success of a given therapy. A recent study by researchers at the Department of Veterans Affairs, notes that among adults aged 65 and older, insulin and sulfonylureas (SU) are the second most common medications associated with emergency department visits or hospitalizations and adverse drug events.

Studies have shown that glucose counter regulation involving glucagon, epinephrine, and growth hormone responses to hypoglycemia are diminished even in

healthy elderly. Older adults may have more neuroglycopenic manifestations of hypoglycemia compared with adrenergic manifestations. These symptoms may be missed or misconstrued as primary neurological disease, leading to inappropriate reporting of hypoglycemic episodes by the patients. Hypoglycemic episodes in older individuals may also increase the risk of adverse cardiovascular events and cardiac autonomic dysfunction.

Metformin is considered to be ideal for elderly unless they have a kidney disease. Older adults are recommended to avoid drugs like glibenclamide to avoid low blood glucose levels. It is recommended to maintain a higher A1c level when insulin is

The basic management concept in geriatric diabetes is based on the life expectancy of the individual.

prescribed.

Long acting analogue basal insulin is preferred to minimize the risk of hypoglycaemia. For past more than a decade, insulin glargine and detemir with lesser variability than NPH insulin were recommended in geriatric population. (12) Recently, insulin degludec (Tresiba), with flatter profile, prolonged duration of action and half life twice as that of glargine has been introduced. One of the safest basal insulin for use

in elderly population, it can be prescribed even in the

with diabetes since it imparts little risk for hypoglycemia, are weight neutral and well tolerated.

DPP-IV inhibitors are a natural choice in the management of hyperglycemia in the elderly with normal or mildly impaired renal function, i.e. CrCl > 50 mL/min. Some of the commonly used DPP4 inhibitors are Sitagliptin, Vildagliptin, Saxagliptin, Linagliptin etc. They also come in fixed dose combination with metformin as Janumet, Galvusmet etc. which are probably the safest combinations in diabetes in elderly. Sitagliptin ((Januvia) was the first gliptin to get introduced into Indian market and has the largest available safety data in elderly population.

In long standing diabetes, sexual dysfunction is extremely common in both men and women. In the modern world, more and more elderly men and women desire to be sexually active. The treating diabetes team may also consider these factors. Insulin pump is an alternative delivery device which delivers insulin continuously and can also be pre programmed to deliver different basal profiles. Insulin pump therapy (IPT) results in dramatic disappearance of symptoms of peripheral neuropathy and also improves the sexual function. Though IPT is gaining popularity, the major limitations are affordability and availability of a responsible caregiver.

Glucometers and new generation Continuous Glucose Monitoring devices have drastically helped treatment in the elderly to be more successful with least chances of hypoglycemia. The yearly influenza vaccine is a mandatory vaccine recommended for adults with diabetes. The ADA recommends all adults 65 yrs or above to be revaccinated with pneumococcal vaccine if the vaccine was administered 5 years ago. Hepatitis B has also become mandatory for diabetes patients. All elderly, based on need, should be continued on statins and anti hypertensives whenever indicated.

The management of diabetes in the elderly is the same as the management

in any other age group. However, consideration has to be given to duration of diabetes, age of individual, presence or absence of co-morbid illnesses and caretakers at home, affordability and access to diabetes team, dexterity, vision etc. A basic understanding of the physiology and

patho physiological abnormalities of the ageing process is necessary for the physician.

The ultimate aim of treating diabetes in the elderly population should be to preserve the quality of life of the subjects with diabetes and not aimed at complete cure of the disease or its complications. Intensive or aggressive therapy may end up in trouble unless and until the patient is under the care of a speciality team. Let the motto in geriatric diabetes be individualizing care and to 'start low and go slow.' •

The writer is Consultant in Geriatrics & Diabetes Fellow, Mayo Clinic USA and Jothydev's Diabetes Research Centre, Trivandrum



PHOTO: GABRIEL



PHOTO: BIJUAL

presence of renal and hepatic disease.

Its uniqueness of action by dissemination of zinc and release of monomers from terminal part of molecule makes it similar to rapid acting insulin which is secreted from the physiological human pancreas.

The introduction of DPP4 inhibitors have proven extremely beneficial for elderly people

Caring with human touch

Ageing is a natural and inevitable process. For each person, there is a turning point after which she or he feels physiologically or functionally 'old'. This event could take place at any age before or after the age of 60. It has been defined as a progressive loss of adaptability with the passage of time, so that, the individual is less and less able to react adaptively to the challenges from the external or internal environment. With the passing of time, the individual become progressively frailer and are in need of increasing support to maintain his or her autonomy. Globally, life expectancy has increased from 47 years in 1950 to over 65 today. It is projected by the UN Population Division to reach 75 years by 2045. With the increase in the longevity of life there is an increase occurred in the



that decrease mobility health related. The World and independence. In Health Organization some cases these falls (WHO) estimates that are the leading cause of about 75% of deaths death from head injury in people over the age in this age group. There of 65 in industrialized are many social problems countries are from heart also that are confronted disease, cancer and by the elderly, such as cerebro-vascular disease falling health, economic (such as stroke). Common insecurity, isolation, ailments that generally loneliness, neglect, abuse, affect senior citizens are fear, boredom or idleness, blood pressure, cardiac low self esteem, loss of problems, diabetes, joint control over one's body pains, kidney infections, and system, and above all cancer, tuberculosis etc. lack of preparedness for Once they occur, these diseases are either old age.

Often old age comes incurable or may take with problems, mostly a long time to heal due

A large number of people enter 'old age' with little, or no, awareness of what this entails.

number of elderly persons have no cure such as with chronic health Cognitive Loss, including conditions who are in Alzheimer's, dementia need of special health and Depression, Visual care services and care impairment, joint pain giving by family members. and Hearing problems. A large number of people Some of them need enter 'old age' with little, regular medication and or no, awareness of what some others need regular this entails. rehabilitation procedures.

There are many In a given year, more than problems that the elderly one-third of adults age face due to their increasing 65 and older experience age and which are hard to a fall. 20 to 30% of those treat and many of which who fall suffer injuries



to old age. Another major cause of death and disability is osteoporosis and associated bone fractures, which affects many women due to post-menopausal bone loss. About three-fourths of adults aged 60 and older are having overweight or obesity. This causes several diseases like type 2 diabetes, cardiovascular problems, breast and colon cancer, gall bladder and prostate diseases.

Muscular-skeletal diseases are among the most common diseases in old age. Osteoarthritis (OA) is the most common form of arthritis. It is a chronic, irreversible and degenerative condition ranging from very mild to very severe. It is characterized by the breakdown of cartilage in joints, which causes affected bones to rub

against each other leading to permanent damage and the aging of the joints called osteoarthritis. Gout is caused by an excess of uric acid in the body, which then accumulates in certain joints. It causes sudden attacks of severe pain and tenderness, usually in a single joint and most often in the big toe.

Senior Citizens are susceptible to a variety of mental illnesses. Depression is the most common among them. Symptoms of depression include- Lack of interest in activities you enjoyed doing, sadness or unexplained crying spells, jumpiness or irritability, loss of memory, inability to concentrate, confusion or disorientation, Thoughts of death or suicide, Change in appetite, sleep patterns, persistent

fatigue, lethargy, aches and other unexplainable physical problems. According to World Health Organization, 25% of the world population is suffering from mental illnesses. But only 40% of these cases are diagnosed and treated. One million annual suicides are the result of these undiagnosed or missed cases. Most common causes for these suicides are depression, dementia, anxiety and Schizophrenia.

Care and Management

It is important to get medical checkups regularly to prevent the onset of any of these health conditions. Age-related eye diseases, cataract, muscular degeneration, diabetic retinopathy and glaucoma affect a large number of elderly. Regular eye examinations

including screening for glaucoma, this disease can be arrested but cannot be restored if vision is lost. Traditional medicines like Ayurveda are very effective in elder care. Regular physical exercise and walking, a balanced diet, a healthy life style etc., can prevent these diseases to some extent. Avoid smoking and excessive alcohol consumption, testing of bone density, including sufficient amount of vitamins in the diet. Osteoporosis can be prevented by avoiding smoking and alcohol intake, take adequate amount of calcium, and limit food with high acidic content. A healthy lifestyle can reduce the risk of heart disease by as much as 80%, according to data from the Nurses' Health Study. Eat as much food prepared naturally as





Age-related eye diseases, cataract, muscular degeneration, diabetic retinopathy and glaucoma affect a large number of elderly.

possible to maintain low fat, high fiber content in the daily diet and limit salt intake to control blood pressure. For memory loss and dementia, stress, anxiety, and mental overload are most likely responsible. "Stop multitasking". According to Dr. Brangman, our brain is supposed to do only one thing at a time. Multitasking overloads the brain and cause memory problem which increases over time. Loneliness is inevitable in life. Even though children move away from families, reach out for new people, friends and even can be grandparent for other young nearby children and youth. Another problem that that the

elderly face is the feeling of worthlessness and low self esteem. Self-worth and value can be improved by encouraging the elderly to take part in family and community activities, learning to use their skills, developing new ones or otherwise keeping themselves productively occupied.

Factors Helping Successful Ageing

Physical Health can be improved through - Regular medical checkup, Adequate and appropriate treatment of diseases, Adequate nutrition, Good personal and environmental hygiene, Good personal appearance, Providing adequate time for rest

and sleep, Assistance in meeting the activities of daily living. Undertake Physical Activities - like -Passive and active exercises, Daily walking, jogging, etc. as the health permits, Participation in the outdoor and indoor games, Participation in household works, Encouragement to participate in those activities he/she is used with, Rehabilitation of the physically handicapped. For their Safety and Protection, Special care is needed in old age. Accidents are one of the major causes of hospital admission, morbidity, and mortality among the elderly. It is therefore important to increase the elder's awareness of safety

in everyday life. Teach the client /family about the importance of using appropriate clothing and footwear for the elderly. This includes- wearing of light and fit clothing of suitable length and size, avoiding slippers and sandals while going out for walking, use of perfect fit shoes with non slippery soles.

In short, it can be concluded that, much of illnesses, disability and deaths associated with chronic diseases can be prevented through adopting preventive measures including exercise, healthy life style and periodic checkups.●

The write is Associate Professor, Dept. of Sociology, Kerala University


Climate Change

Last night I watched the much acclaimed Documentary “An Inconvenient Truth” directed by David Guggenheim about the former U.S Vice President Al Gore’s Campaign to educate citizens about Global warming. Though I am a keen learner of environmental changes, this documentary re energised and prompted me to write an article about climate change. The documentary had immense effect on me and I couldn’t resist my longing to spread the awareness on climate change.

The term ‘climate change’ has been actively discussed for a few decades owing to its fearful impacts on mankind and nature as whole. Despite of having policies and laws to cope up with the alarming situation, climate change has been

Current Status & Stresses





“The greatest threat to the planet
is the belief that someone else
will save it”

Robert Swan

emerged as a global threat to food security and agriculture sustainability. Though the term literally refers to changes in the statistical distribution of weather across a period of time; human activities mainly deforestation as well as increasing the atmospheric concentrations of green house gases (GHGs) and aerosols accelerated the process into several thousand folds. The result is - number of stress factors such as heat waves, drought, floods, salinity, soil heavy metal accumulation, tropospheric ozone and excess UV radiation have become more prevalent.

CO₂ accounts for about 76% of the total anthropogenic GHG emissions in 2010, followed by Methane (CH₄, 16%), Nitrous oxide (N₂O, 6.2%) and fluorinated gases (2%). Transport sector was responsible for approximately 23%

of total energy related CO₂ emissions in 2010, producing 7.0 Gt CO₂ eq. (Giga tonnes of CO₂ equivalents). In 2011, the concentrations of GHGs exceeded the preindustrial levels by 40%, 150% and 20% respectively for CO₂ (391 ppm), CH₄ (1803ppb) and N₂O (324ppb). Annual CO₂ emissions from cement production were 9.5GtC/year (Giga tonnes of carbon per year) in 2011, while from fossil fuel combustion was 8.3 Gtc/year when averaged over 2002-2011.

India is one among the 10 largest CO₂ emitting countries.

Rest of them included Germany, Indonesia, Brazil, US, China, Japan, Korea, Russia and Canada. Climate change performance index 2014 ranked India at 30th position with a poor performance. Our position was downgraded by dropping 6 places when compared to the performance index in the previous year (24th position in CCPI 2013

Ocean acidification

The uptake of anthropogenic carbon since 1750 has led to the ocean becoming more acidic. Ocean acidification poses serious threats to marine ecosystems,

especially polar ecosystems and coral reefs with impacts on physiology, behaviour and population dynamics of individual species from phytoplankton to animals. Ocean acidification possesses potential detrimental consequences for fisheries and livelihoods.



borne

Climate change is directly related to changes in the frequency of extreme weather including heat, drought and heavy rain. Increase in temperature cause impacts on unique and threatened systems, species extinction, and large risks to global and regional food security. Ambient UV levels and maximum summer time day temperature will result in the prevalence of non-melanoma skin cancer and cataracts in the eye. Children become more vulnerable to heat related illness due to their small body mass to surface area ratio. Increasing temperature will cause the spread of Malaria, Dengue and many more vector-

diseases.

Water resources

Climate change will reduce renewable surface water and ground water resources especially in dry subtropical regions. The first and foremost threat to food security will be sharp decline in the quantity and quality of water. Raw water quality will be highly reduced and even after conventional treatments, drinking water quality will be at greater risk due to increased temperature, increased sediment, nutrient and pollutant loadings from heavy rainfall, increased concentrations of pollutants during droughts, disruption of

treatment facilities during floods etc.

Six out of ten biggest natural disasters in 2011 were flood events both in terms of number of affected persons and deaths. Flooding affect the people severely through the spread of water bone diseases like Diarrhoea, Cholera etc.

I n c r e a s i n g urbanisation, use of solid biomass fuels and industrial development, without any control for GHG emissions, lead to an increase in the formation of chemical precursors of Ozone. Higher levels of

surface O3 may be found hundreds or thousands of miles away from the original sources often affecting the remote rural areas, the active centres of agricultural



production.

Ozone at ground levels will cause damage to lung tissue, particularly among elderly and children. Chest pain, coughing nausea and pulmonary congestion may occur in healthy individuals as a result of relatively low level of exposure to ground levels of ozone.

Land use

Changing land use pattern and increased



demand for energy and resources caused by urbanization contribute a major share to the drivers of climate change. IPCC predicts that by 2030, GHG emissions could rise by 25.90% relative to 2000 and Earth could warm by 30C this century. Even with a temperature rise of 1 - 2.5 degree Celsius will cause serious effects including reduced crop yields in tropical areas leading to increased risk of hunger, spread of climate sensitive diseases and an increased risk of extinction of 20-30 % of all plant and animal species.

Disaster in India

India accounts for 24 % of deaths within Asia due to disasters in terms of size, population and vulnerability. Floods and high winds accounts for 60 % of all disasters in India. India has an 800 km coastline and is very much susceptible to cyclonic activity and sea level rise. States of West Bengal, Orissa,

Andhra Pradesh and Tamil Nadu are more prone to cyclone related disasters because of the more frequent cyclone formation observed in the Bay of Bengal rather than in the Arabian Sea.

India is ranked as the most vulnerable of 51 Asian countries in terms of beach tourism. A one meter sea level rise is projected to displace approximately 7.1 million people in India along with 5,764 km2 of land area and 4200 km road. India's economy will be drastically affected by sea level

rise as the major mega cities, Chennai, Mumbai are located coastally. A mere 20 rise in global temperature is projected to displace 7 million people due to submersion of parts of Mumbai and Chennai.

In Kerala, an one meter rise in sea level is projected to inundate an area of about 169 km2 of coastal region surrounding Kochi. State Action Plan on climate change has identified Alappuzha, Palakkad, Wayanad and Idukki Districts as climate change hot spots in Kerala

with a high degree of vulnerability to natural hazards.

Though it is too late, let's join our hands together to protect air and water for our own children. Otherwise we have to see them carrying an oxygen kit along with their heavy school bagging. Though we have excess money power to buy 1-2 cars, to build >3000 sqft homes, let's think on giving some space to live them with fresh air and water.●

The writer is Assistant Professor, Department of Botany, Christian College, Kattakada

GLOBAL WARMING

Already global warming has resulted in an increased cyclonic activity, sea level rises and flooding displacing millions of people from their dwelling places. Increased risk of floods due to melting of glaciers which ultimately result in an increase in the sea level, threatens millions of people living in the catchment areas of the Himalayas and Andes. Kolkatta is the most vulnerable city to flooding incidents after Bangaldesh. The Sunderban islands in West Bengal are also sinking due to frequent flood incidents. 7000 people have already been displaced and by 2030 it is anticipated that over 70,000 people from this area will be exposed to the risks of losing their homes and livelihoods due to sea level rise, increased cyclone intensity and flooding. In addition to the widespread community displacement, the mangrove forests in the world and are well known for their biodiversity and habitat for threatened species (including the Royal Bengal Tiger) will have diminished over 75 % in the next 20 years due to climate change.



The Walking Encyclopaedia

Remembering N V Krishna Warriar

Prismatic splendor. That is what we can say about the creativity of N.V Krishna Warriar. Whatever went through his permeable mind used to come out in splendid colors.. He was at once a poet, critic, orator, scholar, educator and above all an editor par-excellence. As a matter of fact, he has distinguished himself in every sphere of activity of his choice, outshining one another in the process.

The Krishna Warriar Memorial Trust has resolved to observe 2015-16 as the NV Year in Malayalam Literature when workshops and seminars will be held highlighting the various aspects of his versatile personality. The Trust has already brought out a collection of his poetic pieces, and it is all set to compile his other contributions as well.

A poet of the highest order, Krishna Warriar has as many as a dozen collections to his credit. That was a time when Malayalam poetry was under the magic spell of such romantic poets

like Changampuzha Krishna Pillai and P. Kunhiraman Nair. Warriar became a true warrior for liberating it from the skin-deep and shallow musicality of the period. His celebrated poems, 'Kochuthomman' 'Elikal' (Rats), 'Swana Pradarshanam', and the most renowned of the lot, 'Mohandas Gandhi and Nathuram Godse' bear ample testimony to his radical approach and affirmation of values.

Krishna Warriar practised and perfected a unique poetic style that was devoid of the trappings of the past, particularly in terms



of design, diction and depiction. While Gandhi appears as a common man waiting in a queue to purchase ration, Nathuram Vinayak Godse has been portrayed as a VIP enjoying the cool comfort of a modern car. Both satirical and sarcastic, the contrast between the two has been appreciated and acclaimed by the new generation of readers.

A prolific writer, his literary output includes

Krishna Warriar practised and perfected a unique poetic style that was devoid of the trappings of the past, particularly in terms of design, diction and depiction.

two travelogues – the ‘Rising North India’ and ‘Through America’ – three plays and two Kathakali plays – ‘Sree Buddha Charitham’ and ‘Chitrangada’ based on Tagore’s ‘Chitra’. ‘Pariprekshyam’ and ‘Kalotsavam’ are collections of essays which bring out the writer’s well thought-out perspective with regard to different aspects of culture, tradition and literature and his profound views on a variety of topics.

NV’s contributions as the founder of Kerala Bhasha Institute are widely appreciated. His voice was keenly listened to by those at the helm of affairs in the State as well as the centre. His role in the selection of G. Sankara Kurup on the first Jnan Pith winner has been accepted and acclaimed. A recipient of several awards and accolades, Krishna Warriar was down-to-earth in his doings and dealings. Simple to a fault, he has often been hailed as a Gandhian in the true sense of the term.

NV’s pivotal role as the Editor of the influential Mathrubhumi Weekly has motivated a wide range of writers to seek their fortune in the competitive and challenging world of letters. In retrospect, it is obvious that NV was instrumental in initiating a new sensibility to Malayalam literature and its appreciation. ●



For integration, Peace, Prosperity

World Tourism Day



Tourism Society of England defines tourism as “the temporary, short-term movement of people to destination outside the places where they normally live and work and their activities during the stay at each destination”. Millions of tourist travel each year to divergent destinations to experience varied cultural heritage, history, natural attractions and also to discover novel tourist spots. Currently tourism has the status of a global service industry promoted by almost all nations and it touches the life of all forms of people directly or indirectly. Tourism accounts for 9% of the world’s GDP, 8% of jobs and 6% of world trade as well as US \$1.2 trillion in exports.

United Nations World Tourism Organization (UNWTO)

World Tourism Organization is an UN body headquartered at Madrid in Spain which is entrusted to look after the tourism developmental activities at the global level. The major initiative of UNWTO is in promoting and developing sustainable tourism with a view to contributing to economic, social, political and cultural development, improves international understanding and integration, peace, prosperity and universal respect for human



rights and fundamental freedoms for all classes despite on the basis of sex, race, religion, language etc is at the spirit of UNWTO's mandate.

Reason for celebrating World Tourism Day

World Tourism Day (WTD) is celebrated on 27th September every year since 1980. WTD is organized at global level by UNWTO and is celebrated to foster awareness among the universal community about the importance and benefits of tourism and its social, cultural, political and economic value. World tourism's role in breaking down international boundaries and barriers across divergent cultures and to foster tolerance, assimilation, respect, sharing and mutual understanding between world nations and



community is immense.

WTD Theme-2015 "One billion tourists, one billion opportunities"

WTD - 2015 is focused on the theme "One billion tourists, one billion opportunities" and is actually to highlight tourism's role in improving the living standards of the host community who are part and parcel of tourism development in a destination. The announcement of the theme was made at the 20th UNWTO General Assembly held at Victoria Falls on 29th August 2014. On 13th December 2012, the UNWTO

announced that for the first time in world history one billion tourists crossed international borders. This number included people on vacation, family visits and business trips. By comparison, the number of international tourists in 1990 was 435 million.

The theme "One billion tourists, one billion opportunities" draws special attention to the potential of tourism to actively involve all the stakeholders and hence contribute to a critical building block of sustainable development. WTD - 2015 theme highlights the need to bring the tourism sector

and host community together to drive tourism's contribution to community welfare, effective community participation and sustainability. This year's theme is ideally timed to contribute to the debate on tourism's contribution to the Sustainable Development Goals (SDG's), the UN development blueprint after 2015, which places a high priority on host community participation. Seminars, tours and competitions such as photography are organized as part of WTD celebrations. UNWTO secretary general delivers a message as part of WTD celebrations every year.

Burkina Faso – Official Host for WTD celebrations - 2015

WTD is officially hosted by a specific country every year and this year it is Burkina





TURNING ONE BILLION TOURISTS INTO ONE BILLION OPPORTUNITIES

In 2012, a record one billion tourists crossed international borders in a single year. Another five to six billion are estimated to travel in their own countries every year.



WHY TOURISM MATTERS

Faso – a West African landlocked nation hosting the week long celebrations under the theme “One billion tourists, one billion opportunities” a burning topic which has a great relevance currently. Burkina Faso is proud of its immense cultural heritage and throughout the length and breadth of the country there are indigenous communities living according to their own unique ethnicity and religious belief.

Opportunities for Incredible India

Tourism provides an

opportunity for a country like India to contribute substantially to socio-economic development, employment generation, conservation and protection of natural, historical and cultural resources and poverty reduction. In India sustainable tourism is increasingly receiving attention as it combines the aspects of conservation of natural and cultural resources, provides economic benefits for host community and generates high level of satisfaction for the tourist. Rural tourism projects provide

Seven Iconic Attractions of Incredible India

Tourism Destination	Iconic Attraction
Agra	Taj Mahal
Delhi	Qutub Minar
Jaipur	Amber Fort
Mumbai	Gateway of India
Aurangabad	Ajanta and Ellora Caves
Kolkata	Howrah Bridge
Amritsar	Golden Temple

an excellent opportunity to develop the rural economy. Community participation in the rural and eco-tourism projects of India is very immense and has been widely supported because of

the numerous benefits it offers. Sustainable tourism enables the delivery of quality tourism products and services which ultimately leads to high levels of tourist satisfaction. As far as India is concerned tourism provides infinite options for achieving sustainable and responsible growth of the sector.

Statistics of Tourist arrivals in India (2014)

Tourist arrivals in India registered a double digit growth in 2014 over the previous year. The number of domestic tourists grew by 12 percent against 9.59 percent in 2013 and the





Tourism is definitely a vital source for earning foreign currency and employment creation particularly for developing, under developed and island countries. Income earned from tourism projects and activities is redirected towards the sustainable conservation of natural resources and cultural assets. Responsible and sustainable tourism developments help to raise awareness among tourists, host communities and travel intermediaries about the importance and benefits of tourism. Above all world tourism day creates a sense of tourism consciousness and its necessity and importance during the hectic and monotonous life of global community. ●

The writer is Lecturer, Dept. of Tourism, MG University

number of foreign visitors rose by 13.12 percent against 9.24 percent the previous year. Tamil Nadu ranks first in receiving the highest number of domestic visitors (32.76 crores) and foreign visitors (46.6 lakhs) respectively. Uttar Pradesh with 18.28 crores arrivals ranks second in domestic visitors

arrivals. Maharashtra (43.9 lakh) attracted the second highest number of foreign tourists followed by Uttar Pradesh (29.1 lakh), Delhi (23.2 lakh), Rajasthan (15.3 lakh), West Bengal (13.8 lakh), Kerala (9.2 lakh), Bihar (8.3 lakh), Karnataka (5.6 lakh) and Haryana (5.5 lakh). The data on tourist arrivals is compiled by the market research division of the Union Tourism Ministry based on inputs received from the tourism departments of all States and Union Territories.

World Tourism Day Themes & Host Nations

2008 Tourism Responding to the Challenge of Climate Change and global warming (Host: India)

2009 Tourism Celebrating Diversity (Host: Ghana)

2010 Tourism & Bio-diversity (Host: China)

2011 Tourism Linking Cultures (Host : Egypt)

2012 Tourism & Sustainable Energy (Host: Spain)

2013 Tourism & Water - Protecting our common future (Host: Maldives)

2014 Tourism and Community development (Host: Mexico)



Ensuring Food and Nutrition

The importance of Family farming

Wayanad is one of the regions with rich agro biodiversity conserved at on-farm by the ethnic communities like the scheduled tribes.

Family Farming, which now becomes part of human cultural heritage, has been recognized as one of the most sustainable ways to ensure food and nutrition security at household level. This is more evident in parts of Asia -Pacific, Latin America and African regions where family labour as well as inputs generated in-situ are used to produce bulk of household's consumption of food.

The small holders of China, India, Indonesia, Bangladesh and Viet Nam that alone account for 300 million small farms, out of the world's 500 million small farms engaged in production of diverse grains, starchy staple foods like several roots and tubers to wide ranges of livestock and fishery produces.



FAO (1996) warned almost all Plant Genetic Resources (PGRs) of small farms will extinct in on-farm by 2050 unless there are concerted actions to save such diversity. However, the worldwide trend is in promoting large scale use of a few high yielding crops and breeds with focus inputs that maximize the food production.

Here we discuss the starchy staple food yams and aroids that contributes much to the food and nutrition of the most marginal communities.

Agriculture System

Wayanad is one of the regions with rich agro biodiversity conserved at on-farm by the ethnic communities like the scheduled tribes. The farming takes place at both the steep mountain-planes and on the valleys. The principal food crop, Rice in the valleys, and Yams and Aroids on mountain slopes being cultivated with high concentration on native varieties. Predominantly, the tribal communities like Paniya, Adiya and Kattunaikka are the Yam and Aroid cultivators, whereas Kurichya and

Kuruma are the rice growers.

Diversity of Yams and Aroids (cultivated and wild)

The Indian subcontinent, one of the prominent Vavilovian centres of crop plant

farms, wild/semi-wild conditions, which are managed mostly by women almost across India especially in the agro-biodiversity hotspots.

At Wayand, it is used

dwelling community. This group of tubers still serve as a 'life saving' crop during periods of seasonal and acute food scarcity.

Cultivated Yams

M S Swaminathan Research Foundation Community Agro-biodiversity Centre has recorded 30-40 cultivated varieties of YA-AROS complex and about 20 wild species/varieties of Dioscorea from Wayanad



diversity holds a high degree of diversity in Yams and Aroids, more specifically in Dioscorea (about 50 species and over 100 varieties!), Colocasia, Amorphophallus, and Xanthosoma. Normally these crops are the most prominent crops in family

as an important source of starchy and mineral rich foods in the food basket of mainly Paniya, Adiya and Kattunaikka communities. Collectively these two crops could be called as "YA-AROS". The Dioscorea are the major staple food to Kattunaikka –the forest

and adjoining regions. Out of these, 15 varieties are now maintained at MSSRF's Community Agrob Centre's Field Gene Bank in puthurvayal village of the district. Protein analysis of these varieties showed that Inchikachil (D. alata) had the highest protein

(14.52%) and Neelakachil had the lowest protein (3.67%). 38.72% of Thoonan Kachil (*D. alata*) was dry matter, which was the highest among the samples. Nanakizhangu (*D. esculanta*) had the lowest with only 15.59%.

Wild Yams

Wild yams serve as a 'life saving' plant group during periods of food scarcity for tribal people in Wayanad. More than fifteen species/varieties of *Dioscorea*, are still sourced for food by the forest-based communities like Kattunaikka. The communities who are dependent on wild *Dioscorea* for their food classify each member of this genus, based on characteristics like edibility, taste, colour, size, direction of growth, fiber content, cooking properties and occasionally the proliferation underground. Kattunaikka call these tubers as 'Kalasu' and they are knowledgeable about 12 species. Among the varieties known

to them, *Dioscorea hamiltonii* (Vennikalasu), *D. belophylla* (Hehkkukalasu), *D. oppositifolia* (Kavalakalasu) are seen in interior evergreen and moist deciduous forests, and *D. wightii* (Erakalasu) in rocky grasslands. *D. pentaphylla* (Noorakalasu, Nallanoora), *D. wallichii* (Narakalasu), *D. bulbifera* (Hendiridaekalasu) are found in wayside-bushes and *D. pubera* (Boojikavalakalasu) in marshy areas.

The Kattunaikka collect *Dioscorea* from almost all these places, but more frequently from the forests and other such unmanaged habitats. Among the different species of *Dioscorea*, *D. pentaphylla* (Nallanoora) is the most commonly consumed tuber. As the name indicates, 'nalla' means safe or good to eat. The tuber is single, less fibrous and is powdery when cooked and tastes good. This variety is common on the fringes of deciduous forests. *D.*

oppositifolia (Kavala) is another very popular tuber among all the tribes of Wayanad. It is excellent in taste and is commonly found in moist forests on which the Kattunaikka community depends more. *D. tomentosa* (Salukalasu) is not consumed regularly due to its high mucilaginous content, and is eaten only during times of acute famine. Communities other than Kattunaikka keep away from this tuber as it has peculiar kind of fibres that leave an itching sensation when consumed, particularly on children.

Among the various tubers, *D. hamiltonii*, *D. oppositifolia* and *D. pentaphylla* are the most frequently consumed ones. The collected tubers are stored inside the huts in the open. A wide range of methods are adopted for processing the tubers. The tuber of *D. hispida* (Kottunoora) requires thorough processing before consumption. The chopped tubers are



wrapped in a white cloth and kept in running water in the streams for over 24 hours before being cooked. This species is considered toxic and none of the other communities consume it.

Wild and Cultivated Aroids

There are six varieties of taros found in pure wild in abandoned fields and marshes and consumed mainly by



Paniya and Kattunaikka. A variety named Karim Chembu is adored for its medicinal properties like curing rheumatic complaints, purifying blood and improving eye health. Colocasia “thalu” (petiole) is the most widely used greens by the Paniya community. Three varieties of Colocasia from three different habitats are collected and their names are associated with the habitat from where they are collected.

Thalu is considered to strengthen the bones and improve the immunity of body. Young girls are fed on a diet of thalu during their menstrual periods to improve their immunity. Many of the cultivated varieties of YA-AROS are in fact orphan crops, as there is little attention to their improvement. An important aspect of Yams is that they have very low water footprint, which means it can be grown in extreme marginal

environments. YA-AROS are traditionally high resilient crops, which matters to counteract the deleterious effect of climate change and have the potential to help the poor and marginal farmers to adapt to the vulnerabilities of climate. Also as the volume of food (tuber), is very large with long shelf life compared to any other food crops in the region, and correspondingly the availability of food per

person at household is very high.

Many of the aroids are used for both its corms and culms, which form an important source of readily available vegetable. Some of the YA-AROS have use in Ayurveda and Unani as purgatives, laxatives, expectorants, for the treatment of skin diseases and poison bites. ●

The writers are associated with Agro-biodiversity Centre, M S Swaminathan Research Foundation Community, Wayanad

Cautious with every step

A big white sugar candy in her hands and even a bigger smile on her face, a perfect combination with her white shorts and blue T shirt. Like the typical mother who is a jingoistic member of the 'click -every- moment- of -your-child' generation of parents, I clicked instantly.

Immediately the Hindi speaking young guy who sold the sugar candy to us at the mall also took out his phone; being member of the selfie generation himself. The Tiger mom within me jumps out into the defense of my daughter and I screeched a "NO" at him. He was silenced by my over rated expression and drama. His face suddenly turned taut and looked around to see if there were any audiences to the staged show. We were standing near the escalator boarding and

what a sight to see, the entire traffic on the escalator that was gliding down turned up towards the tiger mom and the sugar candy daughter.

Why did I over react? It could have been a simple gesture from the side of the boy selling the candy. What was on my mind? Child abuse / Child pornography/ pedophile/ morphing??? It is a fact that I do not have to allow a stranger to take my daughter's picture right in front of me. But was my reaction to the incident normal?

Yes, it is normal in today's context. As a mother, I am on alert mode 24x7. So much abuse going around

in the society and the environment my daughter lives in, that every gesture is looked upon with suspicion... The phones in the hands of people are dangerous. The social media pictures that we upload of our children are dangerous. Its danger, danger and more danger.

This incident didn't happen recently, but I am referring in the context of today. A few days back I read another friend spread awareness about a pedophile page on a social media which was formed by people of my own state. It is estimated that in the Third world, 250 million children have to put up with the encumbrance of survival. Pedophiles are on the streets, on the Internet, on the roads, in the school...



They are all over the place. These pedophiles seek a target-rich environment for finding their prey, and the Internet has become their flocking ground. Its danger on the roads, its danger on the internet, its danger on the social media, its danger on the campus, it's even danger on the floor of the homes.

Children are most innocent and they have to put up with abuse in many ways from the day they learn to take a few steps on their own. The worst of abuse for children are exposure to pedophiles, and this goes unrecognized largely. Tourism which is one of the main currency making industry in the country seems to be pedophile's paradise. Child sexual abuse is an epidemic and a reality. Parents are you listening???

There are several laws to protect children and several campaigns to create awareness; these somehow don't seem to suffice. The more the protection, the more the predators find other ways to get to children. The government can't seem to be catching up with the predators and their ways. It's upon parents to ensure the safety of their children. Family nurtures the child first. As infants they enjoy a long period of dependency on the parents therefore the family is the most effective initial agent to address this issue. It is extremely important that parents have awareness of the existence of pedophiles around their children. Knowledge is power, especially when you are reading what

you don't want to know. Parents have to read and understand about law and protection. Parents have to be sensitized to understand the problem and act accordingly with sympathy and compassion. Parents need to have an open door policy in communication with their children so that children come open about such instances. Parents have to earn the trust of their children. When a child complains about a problem, parents have



to listen with interest and intent and be very cautious to be noncritical.

The school should also keep awareness programmes for students and parents. Teachers and counselors should be equipped to handle such issues. Media should not only flash news of isolated incidence and later wash off their hands. Media should take this up as an ongoing awareness and keep it in the limelight so that there is continuous and constant information available to the mass.

A social media friend of mine later asked me, instead of making such a hue and cry about the photograph incident of my daughter at the mall, couldn't I just stop posting pictures of my child on

There are several laws to protect children and several campaigns to create awareness; these somehow don't seem to suffice.



devastation when they take innocent steps in life. So while we protect our children from internet pedophiles lets also create greater awareness for all the other children. This cannot be achieved by just few people, this cause need to have the shoulder and hands of all the citizens so that together we can outnumber the perverts. It's the best we can do to make a safe place for our children.

While the pedophiles have one eye on our children, let's invest both eyes on our children.

The Chilean Poet, Gabriel Mistral wrote, "We are guilty of many errors and many faults but our worst crime is abandoning our children, neglecting the fountain of life. Many of the things we need can wait. The child cannot." I wish for my daughter to live in a better society where her mother is not so panicked; don't you wish the same???.●

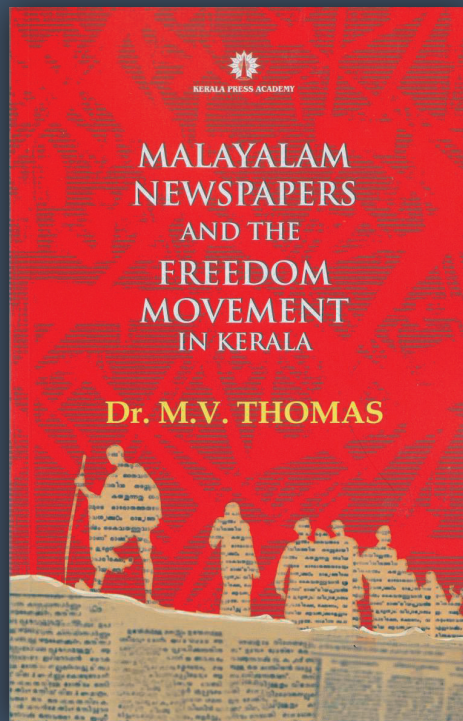
The writer is Parenting Consultant

Retrieving honour of Malayalam Newspapers

Role of Freedom Movement in Kerala

It's amazing irony of history that the Colonial rulers of India themselves had, though unwittingly, laid the foundations for freedom. The British had made two important infrastructures that facilitated the Gandhian march for independence in the second half of the 20th century-- rail and press. Of this, the press proved a powerful non-lethal weapon to fight the foreign yoke.

How powerful the press was in shoring up mass support could be gauged from the fact that Mahatma Gandhi himself turned to journalism as a non-violent mass awareness medium. So did many stalwarts of the pre-independent era. But while the role of English press was feeble the vernacular newspapers proved virulent in garnering public support for the cause. Malayalam in its own way contributed greatly for the freedom



Malayalam Newspapers
and the Freedom
Movement in Kerala

Dr. M.V. Thomas

Kerala Press Academy

Pages 232

Rs. 230

movement, especially because it was in this southern peninsula that the printing of vernacular language came first in the country.

While imperialist intrusion into India is well-documented, the book, Malayalam Newspapers and the Freedom Movement in Kerala by Dr. M V Thomas, is unique in its vein. It gives a pan-Indian approach with focus on Malayalam newspapers, giving the students of history an aerial view of Indian struggle and role of the English and vernacular press. More importantly, the book seeks to correct the high-brow view of national history writers that only grudgingly allows a small peripheral role for the vernacular newspapers, particularly those of Kerala which in reality had made massive contributions to furthering the freedom struggle. In fact, there is not a state that had more wholeheartedly accepted the



freedom movement led by Gandhiji as Kerala did.

The 232-page book, based his research for doctorate with Kerala University, is not just about the newspapers' role in freedom struggle; it takes in a deep breath of the ambience prevailing in Kerala in the tag end of 15th Century when the first foreign adventurer-trader, Vasco da Gama arrived in Calicut. Dr. Thomas points out how conquer of Kerala was made possible because of the never-ending internecine war among small chieftains and kings.

Early newspapers and freedom movement

In Kerala the first Malayalam journal was brought out not by a German missionary, Herman Gundert. Malayala Panchangam was brought out in November 1846 followed by Rajya Samacharam in 1847 and Paschimodayam in the

same year. Interestingly, the first Malayalam real newspaper was brought out by a Gujarati, Devji Bhimji, in Cochin in 1865 under the name of Keralamitram. From then on it was a steady march of Malayalam journals and newspapers where patriotic stalwarts led from the front.

The book explains how the 19th century and early 20th century saw a socio-cultural and political renaissance of Kerala. Political awareness was not in isolation of social movement. In the second half of 19th century and first half of 20th century Malayalam literature was very supportive to freedom movement in Kerala. It was a renaissance period led by Sree Narayana Guru whom Gandhi held in high esteem. Great poets like Kumaran Asan, Ulloor, Vallathol had by their inspiring verses lent a helping hand to the

Gandhian movement.

Book takes note of all small but significant newspapers and journals and zero in on two biggies—Malayala Manorama and Mathrubhumi—that have made sizeable imprint in the Malayali psyche.

Manorama, born on March 22, 1890 as a weekly underwent troubles and tribulations when it was closed down by the royalty and Mappilai suffered incarceration. The paper's policy, though criticised as a Christian-tinged view of things, indeed did a yeoman's service to not only freedom struggle but for the socially backward communities of those days.

Mathrubhumi, another leading daily, was started in 1923 as a mouthpiece of Kerala PCC and throughout its service remained firmly rooted for freedom and Indian ethos. It had prominent men of letters as its editors.

Ditto Kerala Kaumudi and Deepika which in fact is older than Manorama.

Writing foreword, renowned journalist TJS George remarked, "Dr. Thomas shows us that many reform movements took place under the umbrella of freedom movement. Kerala, more than any other part of India, functioned as an active lab where civic movements were tried out and social reformers found fertile ground."

It's essential for the digital generation to have at least a cursory awareness of the sufferings of the '47-midnight generation. Value of freedom is understood when seen in juxtaposition with thralldom. This book serves the purpose. The book is written in lucid simple English sans scholarly jargons. It adds to its readability. ●

The writer is former Bureau Chief of Times of India at Thiruvananthapuram

Grand beauty of three generations



Mokaras are a group of orchids which can make good house plants that can bloom year round when given the proper environment. Perhaps this may be the only orchid flower with such a broad spectrum of colour shades including purple, pink, red, orange, blue, coral and yellow. Each of these colours has

its own range. For example the purple colour is associated with spirituality and nobility. The deep purple communicates riches, while the light purple reflects delicacy and romance. In China and Thailand purple is the symbol of grief and sadness. But in other cultures purple symbolises sovereigns.

Mokara is a trigenetic hybrid created by cross breeding between the *Ascocentrum*, *Vanda* and *Arachnis* orchids combining the most outstanding characters of each. This hybrid which is a mix of three parent genera was first created in Singapore in the year 1969 and is now a popular favourite among garden lovers world wide as its parents. The first Mokara hybrid was called Mokara Wai Liang, named after C.Y.Mok of Singapore. Since then countless other types have been developed. This beautiful hybrid has a

unique flower shape and the capability to last up to two or three weeks in the vase with proper care. Mokara is among those orchid types which are hardy and very easy to grow. Once these orchids are grown with care, they produce beautiful and exotic-looking blooms. They are ideal beginner orchids as they are very forgiving. Especially some species of Mokara orchids are incredible hardy and quick growing. They are suitable as garden plants in warmer and tropical climates. Mokaras are included in the bright light orchid group. Placing it in a spot with morning sunlight until noon will be most sufficient in terms of lighting. But avoid exposing it to direct sunlight since their leaves have flattened surfaces which tend to absorb more heat that can eventually burn the leaves. Especially the modern hybrids, can tolerate only low light while showing good

health and successful flowering. More over if you have any doubt regarding the availability of sufficient light watch the colour of the leaves. If the leaves turn to reddish green instead of bright green colour ,this is a clear indication of over lighting the orchid. Mokaras belong to the Vandaceous genera so that it shows monopodial growth habit which means that they grow from tip or crown of the plant. The inflorescences appear from the axis of leaves. Flowers are long lasting and appear in a cluster along the spike. The Mokara has an inflorescence of up to 60 cm long, bearing about 15 flowers. Due to their delicacy and bright colours with its striking form of a star fish, Mokaras are popular in wedding bouquets.

Before purchasing a Mokara orchid for growing, ensure health of its roots and leaves. Roots of the plantlet should be plump and healthy without wither tips. The leaves should be green and strong. These two features indicate that the plant is healthy to be grown. When grown indoors in pots of 18 to 20 cm diameter, place the pot in an east-facing window to receive full sunlight in morning. Since the Mokara orchids have heavy top, place a few river rocks around the base of the pot to prevent the orchid from leaning over. The plants can be watered in the morning and watering can be done several times during hot weather. Take care that the plants are not over watered and it never stands in water. A healthy air circulation and some extra humidity is good for the plant.

Mokaras can be fertilised once a month. They prefer a diluted solution of fertiliser. If possible use fertiliser mixture 30-10-10 orchid fertiliser or mixtures like



17 complex, 18 complex etc according to availability. Ensure that the fertiliser is properly diluted ie, 1 to 2 gms of the fertiliser dissolved in one litre of water. The use of chemical fertilisers is to be properly balanced with organic manures like cowdung, cow's urine, and ground nut cake and neem oil cake. They also are to be diluted before application. Since urine contains high levels of salts, a dilution of 1:25 is necessary. For others 1:10 dilution and subsequent storing for 4-5 days before

application is ideal. One spray a week with organic manure is enough.

There are several showy varieties of Mokara suited for growing in our homesteads. Mokara Norah Blue, Mok: Top Red, Mok: Lamberg Gold, Mok: Chark Kuan Orange, Mok: Bogus Sunspot, Mok: Omai Gold, Mok: Omai Jumbo. Mok: Walter Omai White, Mok: Syan Dae Pong, Mok: Kulthana Red, Mok: Syngyo Gold etc. ●

The writer is Deputy Director, Editor, Farm Information Bureau

Painting the Child

Metaphoric Strokes in the Wilderness

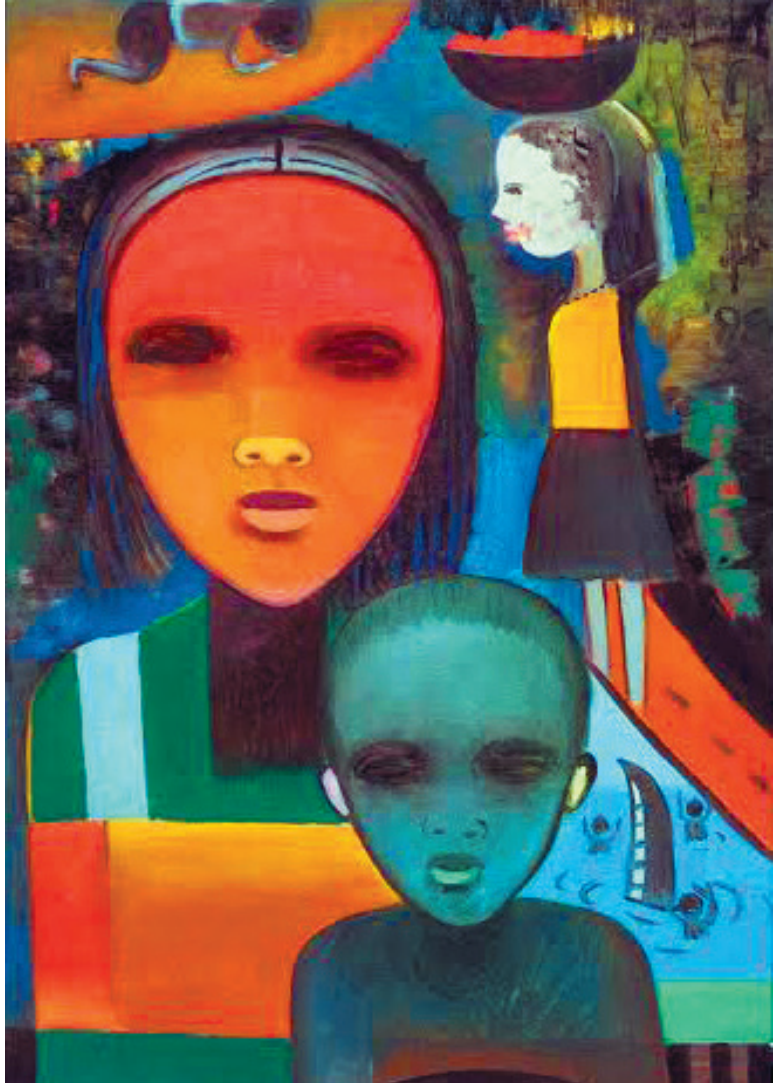
Jain's is the art of representation. He relays through his paintings a sensitively critical message of protest against the callous exploitation of the child. Jain chooses, mostly, the girl child as the metaphor of tortured existence, and he is justified in it considering the facts – the girl child is in the double bind of class and gender, the two-pronged condition that sets her in a social matrix congenial to inescapable exploitation. She is more prone to be abused sexually, pushed into prostitution and labour, and denied opportunities of education and the simple pleasures of childhood. Through



The girl child is in the double bind of class and gender, the two-pronged condition that sets her in a social matrix congenial to inescapable exploitation.

scores of paintings having the girl child as subject, Jain meticulously captures her suppression in its varying faces. Evidently, it is the lower-class girl, the one hailing from a working-class background, that occupies him. She is the one who embodies the universal proportions of feminine suffering in a patriarchal society; the boy child, even when he is no exception to exploitation and rejection, is less vulnerable, thanks to his gender.

C.D. Jain seems to be the lone painter in India, perhaps in Asia, who focuses his art exclusively on the subject of childhood. He is also a well known educator who conducts art classes for children and youngsters using his own original methods of instruction. Over the last two decades, as an artist, he has been preoccupied thematically and formally with existence as child. Jain's awareness of the pan-Indian situation vis-a-vis the girl child seems to be no less instrumental in gluing his attention to the cause of the child. In recent times, the media in India has been rampant with reports on child abuse ranging from sexual, domestic, to sheer victimisation by consumerism and middle-class aspirations. The diverse sufferings of childhood has been volubly discussed by the intelligentsia here. It is natural that the conscientious artist's attention gets entangled in this elemental problem, but to get steeped in it to the extent of making it the motif of art for long spells takes extraordinary depths of feeling and imagination. Added to this



are the impressions Jain garners in his travels exploring the underbelly of urban India. Many of his images of the suffering child owe their existence to the poor children he has encountered in its streets during his travels.

One of Jain's paintings in "The Joyous Moment" series entitled "Journey through a tempting past" ironically exemplifies how a subtext of gender discrimination is woven into the fabric of a joyful moment of childhood. Here there are three girls and three boys in a playful moment against the background of a house, besides figures of an elephant and a goat in a perspectiveless arrangement. The painting poses a subdued statement of the typically Indian condition of femininity in which the girl child is more domesticated than winged boyhood. The two females, one sitting as if she is nursing the one reclining, are watching the girl who is raising a boy-child in her arms. Next to her, a boy is given two wings, symbolically suggesting that he is free like a bird in the domestic sphere, while another boy looks on indifferently. So is "Livelihood," where a girl is seen carrying a load on her head. Her own sad close-up fills the larger part of the canvas, while a male child sleeps in the background, and another one looks on



unconcernedly in the foreground. The gloom that clouds the children's faces is Jain's statement of the effect of child persecution. Perhaps the pithiest representations of suffering childhood in Jain are his portraits of children, which too are predominantly of the girl child. They are of an impressionistic import, with the artist striving to capture the pathos in their countenance. The reduction of the subject's facial contours to geometric shapes – most of them are heart shaped – helps to transcend individuality, and embed the universality of experience. In "Ravished," a girl child is presented in stark

nudity, with an eerie suggestion as regards the precariousness of her physical security in a world infested with pedophiles.

What is his philosophy of humanity? Since Jain has chosen the child as its metaphor, he states his philosophy too through it. He looks on happiness as the essential condition of humanity, and seeks to relocate life in a visionary world that sheds its garbs of modernity and becomes verdant nature. Jain paints an entire series entitled "Benign Forests," in which the child radiates joy most naturally when it sits in the lap of bountiful, pristine nature. These

are acrylics, where the blue dominates with a mystic and lyrical charm. They make a series of paintings rendered over a period of six years. Here, the children reclaim their original joyfulness upon being nestled in the benignity of forests. They beam with careless abandon amidst the transparent blue of a dawn, forgetful of harsh reality. These are idyllic pictures of life in its elements, and contrast sharply with the grimness of the rest of Jain's paintings of childhood. The Benign Forests are microcosmic representations of holistic life; here plants, animals and humans are harmoniously entrenched in a single plain. Jain seems to use the images of the flora and fauna characteristic of Kerala; the paintings abound in meticulously drawn images of deer, monkeys and hornbills among other creatures – familiar sights in the forests of Kerala. Benign Forests are verily Jain's masterpieces in composition. The mystic blue that permeates them is in itself a marvel in terms of the varying intensity with which it spills over everything, yet not blurring its individuality. Certainly, blue is the colour Jain gives to benignity, the most regenerative of all human feelings. Looking at these paintings, one is drawn into a wish to regress to the uterine solace of benign nature. ●