



IDUKKI – CLIMATE CHANGES OUT AND OUT

Electricity, Agriculture, Tourism Affected

Ebi P. Joy

Thodupuzha:

The climate of Idukki is changing fast to an alarming level. The change is harmful enough to cause far reaching effects in the field of electricity – generation, agriculture and tourism. Reduction in rain-fall, drought, change in atmospheric temperature alongside low water-level in dams, widespread exploitation of under-ground water, sand and rock – mining all these worsen the situation

The rate of rain-fall that Idukki has ever been getting in the Monsoon has been dwindling over the years. While last year she received 1908mm rain till November, this year it is 1498.71mm only. It was then hoped that the THULA – MONSOON would make it up; but that did not happen.

The water-level in Mullapperiyar Dam was 119.3 feet on 25 Nov, 2015N; this year it is only 111 feet. In Idukki Dam, the same day last year the water-level was 2361.32 feet above sea-level. The same day this year, it is 2345.38 feet. This is a clear indication of a crisis in the electricity production of the State that solely depends on hydro-electric Projects



Presently, the average day-time temperature in the District is 32.630 celsius. Four years back, during Oct-Nov. It was 27.20 Celsius only.

The fascinating climate phenomena of the Highrange, namely, the thick fog, the VRICHKA-MONTH coolness, the thread-like drizzling – are all fast disappearing. It is, therefore, a matter of great anxiety how long tourists would be able to enjoy the pleasant coolish climate of Munnar and Thekkady.

It is pointed out that the shaven shape of rocks in the mountain-range and the cutting down of bushy forests are some of the reasons for the climate-change. Tarred roads and building – materials unfriendly to nature have raised the temperature. Wise use of bore-wells has resulted in the depletion of underground water.

With regard to under-ground water, in the geological map, UDUMPANCHOLA has already been coded in red and KATTAPANA in orange. Price-crash has reduced the cultivation of Cardamam, Rubber and Black Pepper. Even in Cardamam reserved Plantations, supporting trees are not protected. This year, agriculture was not possible in 1042. 44 hectares of land in the district resulting in a huge shortage in the spice-market.





Let's own the rain

Dr. Manoj P Samuel

The climate has been changing drastically in the State of Kerala. Ahead are hard days. Heat and cold would go up. Now the hope is for the out-of-season rains. At the same time when it rains in the expected months, it would be the manna from the heavens.

By the past 130 years, the surface – temperature of the Earth has gone up by 10C. The ice-caps over the Poles and the mountains have already started melting. The sea-level that rises as a result may threaten the coastal living-condition. Forecast has it that by 2070, the sea-level is likely to rise from 21 to 71 cms. In all fields such as agriculture, food – safety, environment, forestry, sea-produce and health, the effects of climate – change can be felt adversely and favorably intermingled; but studies show that it would be mostly ill-effects. Untimely rain, reduction in the quantity of rain and rising temperature may cause crop – withering and low yielding.

Most frightening is the reduction in the quantity of rain. Just a glance at the rate of rain during the Oct. – Monsoon season (from 1 Oct. till 15 Dec.) last year, is convincing enough how grave the situation is. During the said period, Kerala got only 180.2 mm of rain, in the place of an expected 469mm. That means a mere 38% of the usual availability.



INTO THE POT

The beneficial way to fight drought urgently is rainwater – harvesting. The rainwater flowing from the roof or so can be stored in tanks and used after filtering during the hottest season. For drinking purpose, strongly covered tanks are the best; so are filters to get rid of impurities.

INTO THE WELLS

By channeling directly falling and flowing - over rainwater into ponds and wells, it can be stored. This helps underground water enrichment too. Project 'RAIN – ENRICHMENT' by which reaching the rainwater from the roof into the wells is note worthy. But the only caution to be taken is that such rain water be cleansed before reaching the wells.

LET THE WATER WALK

The important matter is to walk the running water. Slowly flowing – water sinks into the earth abundantly. This process prevents soil erosion. Conserving the rain water falling on the land plot within itself, letting it sink into the soil etc. are vital. In Kerala, one hector area gets about 3 crore liters of rainwater. If 1% of this water could possibly be let into the underground water sources, from a small village of 10 square kilometer width alone, 30 crore liters of water can be stored in the underground water-cells. Check-dams, contour – compound – walls, grass – groves and any such soil-water protection – constructions would be helpful in this endeavor.

LET THE WATER BODIES BE CLEAN

To-day, most rivers, ponds and other water bodies have been contaminated. Activities are to be started to prevent pollution and purify the waters. It could be implemented by undertaking it along with the programmes of 'Clean India.' Environment – friendly and cheaper water-purification filters should be-fitted at the opening of the water bodies and pumping -points. These are necessary for the purification of the in-coming and out-going



WATER – LITERACY – A MUST

An awareness of water – conservation and purification processes has to be created at the school-level itself and upwards. It may be taught at schools and colleges. Special standing committees can be envisaged in local Bodies for water-conservation. For the co-ordination of activities, water – workers Groups can be formed. Expert – committees may be set up at various levels from village to State. All Establishments, Development Departments and Research Institutions working in connection with water, environment and land should be brought under one umbrella in order to plan future programmes and implement them from time to time.

We too have to change ourselves to confront the ill-effects of climate-change. Realizing that change is universal, we should be able to re-arrange and co-ordinate our agricultural calendar and water conservation activities. We must equip ourselves to-day itself to face the scorching drought.

(The writer is formerly Manager of Govt. Rain-Harvest Project and currently Head of the Dept. of Central Institute of Fisheries technology and Principal Scientist)



The Lakshadives got only 112mm, a reduction of 64%. If the rainfall of the last three months is audited, the districts that have about 75% reduction are six: i.e. – Kasargod, Kannur, Vayanadu, Kozhikode, Malappuram and Thiruvananthapuram. Districts that received below 100mm rain only are four – Kasargod, Kozhikode, Vayanadu, and Kannur. On the other hand, Pathanamthitta and Kollam districts got a rich rainfall.

The northern districts which are generally due to get heavy rainfall during the Oct. – Monsoon season have received the least this time. If this phenomenon is repeated in the coming years, water-shortage would be acute in Kerala.

No doubt, drought will be terrible this year following 35% shortage in the Mid-June and Oct. Monsoon rains. Therefore, preparations for overcoming the water-shortage of this year and the coming years should be made already now. It is always good to plan and implement schemes taking the soil and the environment into confidence and through people – participation.

INTO THE SOIL

As much rain water of the coming Summer-rain and the June rain as possible should go down into the soil. Let it flow into our wells and other water sources as fresh springs. In order to ensure underground water maintenance, a couple of places like sacred – groves should be located in all villages and protected. In lieu of the grounds being hard-jacketed with roads, bridges, houses etc, more water absorbing areas like farmlands should be identified. The ideal effort is to protect ponds, small canals and marsh – meadows. To open the mouth of the thirsty earth rain water-holes can be dug. In suitable places as per the nature of the ground, recharge – wells can also be constructed.

INTO THE POT

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RESIST THE SUMMER WITH SPROUTS AND LEAVES

“Planting a sapling is planting a shade!
A cool canopy for a little rest is thus made!

Planting a runway for the cloud running with a pot of rain
And the runaway wind; for both to land and share!”

-DNV-

(Jganapeed Laurate Poet)

By: V.U. Radhakrishnan

We are stepping into the scorching summer of a dry season. Plants and all living – beings are going to be in the clutches of drought in the coming days. They too need water to live and to sustain the continuity of life. If the plants dry up and perish, it will affect all living beings. Therefore, it is imperative to realize the water-requirement of the vegetation and protect them for the survival of life on the earth.

Each plant should necessarily get fresh water from the soil to fulfil its bodily needs. There are four types of water – Raining capillary water, Gravitational water, Hygro – scopic water and Runaway water. The water-molecules coming up from the deep soil to the surface which is absorbed into the internal parts by the root-branches of the plant is the capillary water. This forms a flow travelling through the Xylem vesicles and being perspired. By this process minerals reach into each cell. This water-transporting takes place based on the principle of Osmosis. In fact, a plant needs truly clear and clean water. And it needs it, not less than enough or more than enough, but just enough.



For seed-germination too water is necessary. It is also essential for the cell-growth. In short, for all life-giving functions, water is a must. Plants will keep sending out initial danger – signals such as leaf - shedding, withering and leaf – curling, if they do not get sufficient water. Haven't you seen leaf – falling and skin – sloughing according to seasons. Thus, like us, plants too condition themselves by drawing water for their own biological functions. You might as well have seen some plants storing water within themselves. Eg. The Cactus.

Every gardener particularly farmer does irrigation foreseeing the water-requirement of the crops. The harvest depends on the rain of the year.

Creatures depend on various vegetation for their bodily needs. Some other animated beings get water while eating vegetables, fruits and leaves.

Plant groves are the creators of water sources. They play a vital role in protecting lakes.

RAIN AND TREES

Vegetation is a critical factor in rain-fall. It is plants that turn water into clouds and clouds to shower rain. Of course, Water-Cycle takes place through plant – Perspiration and Evaporation. Similarly, forests make water in rain-clouds by dampening them. Water-drops dash upon the foliage – surface and fall on the ground scattered as droplets. It is the roots of the plants that well-up this water – current to be absorbed into the soil.

Now a question can crop-up. How come it rains in the sea which has no forest?

One thing is certain. If only down below is a cool atmosphere, will condensation take place. This phenomenon is performed by the water on the sea-surface there and the foliage – canopies on the land here. So the part played by plants is quite clear in the abundance of rain. As the forest disappeared, so did the rain. As there was no water, animals set out from the forest. They began to quench their thirst and hunger by feeding on the crops of the migrants. If only the jungle is luxuriant with foliage, will this sad situation be changed or avoided.



RAINY SEASON ON THE WANE

Rain is inevitable to fill up the water bodies of the earth. The sustainment of the future is in the rain. In our country, what is known as 'Rainy season' is becoming rather 'Rainy days.' As the forest – width in 1950's is at present reduced to half, so is the measure of rain reduced to half. Rainy season has become a rarely raining favour of the Low Pressure.

THE RIVER AND THE TREE

A river originates from its rainfall-area. To form what can truly be called a river, 100km of rain fall area is required. As the land-width of Kerala is 38864 km², the potential is only for 3 rivers; the rest are streams. In the present situation where thick forests are shrinking, rivers are sinking due to the lack of rainfall-areas. Is it not clear now the relation between the existence of the river and the vegetation?

PLANTS NECESSARY FOR DRINKING WATER TOO

Plants play a major role in purifying our drinking – water. Water plants make water oxygen – rich by feeding on the excess minerals in the water and releasing oxygen into it in return. This may be the reason why certain plants like water – Potato are being grown in village – wells.

BARDS SANG

How many songs have our poets written on the importance of plant abundance! Environment protection paths that our far-sighted poets and literary people have pointed out are to be developed. Even a tiny grass has its own place and function in the sustenance of the earth.

Classical books to most modern literary works have depicted the importance of plant life. They have as well underlined the role of the Plant – Kingdom in the existence of agricultural crops, rainfall and water-sources.



A SAPLING A BLESSING

There is only one way to avert water – shortage. Plant and look after bays of baby – plants. Provide a nature's variety. Enliven the mutual bond within the natural world. The cause of the scarcity of rain is of course the destruction of the plants. When we plant and maintain each sapling, knowingly or unknowingly, we have partaken in an activity to make the soil water – rich. Only plants and trees can pave the water-ways of the chains of cloud by means of their leaves and transform the earth – lumps into sponges by means of their root – branches. To resist the scorching summer, let us plant and nurse a small sapling at the least.





SUSTAINABLE DEVELOPMENT AND DISASTER MANAGEMENT CHALLENGES

Dr. P.G. Chakravarthy

Far beyond the obligation of confronting the challenges arising out of disasters, accidents etc. the Disaster Management Division of the nation has already achieved gradual growth. To control the threat of dangers from disasters means to assess scientifically the causalities, sufferings, losses etc caused in connection with the natural or man-made disasters, to take the necessary steps to prevent them and to mitigate the existing dangerous threats with the help of modern resources.

There is no alternative but be prepared to encounter the dangers that can in no way be managed or controlled. Disaster-prepared means being ready to face any disaster effectively. Consequently, when disaster does happen, it would be possible to save maximum number of lives and reduce the enormity of the calamity through evacuation, search, rescue – operation, preparation of shelters, charitable activities etc. Disaster – prepared also means in addition to timely policy – making, to prepare ways and means to make resources for livelihood, build houses and basic amenities for the victims.

Disaster – Threat Management plays a key role in Sustainable Development. As per the statistics of the United Nations as regards Disaster – Mitigation, during the last two decades, 1.3 million people had been killed. 4.4 billion people had been victims of destruction. A total loss of two lakh crores of dollars had incurred. A share of that loss is India's. According to World Bank calculation, in the 90's and during the first – half of 2000, natural disaster-induced loss amounts to 2% of India's Gross Domestic Production. In this context, it is worth remembering that even in our Public Health Area, we have not spent this much money



DISASTER AND DEVELOPMENT

Disaster and Development lie intertwined on a three-dimensional level.

1. Disaster destroys the growth and progress that the nation has built over decades, within no time.
2. Owing to the lack of development, the poverty-stricken sections of the society become most prone to disasters.
3. It is a paradox that often development itself gives way to disasters. By building houses and housing complexes in certain areas, in fact, disasters are being called for. Starting mining, industries etc. in environment – sensitive areas would also be dangerous.

In the wake of anxieties arising globally about sustainable development endeavors that are pushed back by disasters, having found out three activities that are parallel at the same time, inter-connected, World-Nations have defined a development – programme for the next 15 years. The first one is the Sendai Disaster-threat Mitigation Framework (2015-2030) summarized at the place called Sendai in Japan in March, 2015. This is the first Framework summarized with seven objectives to reduce disaster-threat globally. Besides reducing disaster – induced death-rate, number of victims, direct financial loss and destruction of basic infrastructure along with them giving disaster alert warning about the impending danger, increasing international co-operation in disaster – management etc. are all included in this Framework.

Priority will be given to disaster – impact mitigation at a local, national, provincial and global level. That is: foresee disaster-risk, invest in risk – mitigation project increase rehabilitation, re-building etc.

Out of the 17 Sustainable Development Objectives that the UN General Assembly passed in September, 2015, (2030), 8 of them are related to Disaster Management. These objectives give emphasis on mitigation of the disaster – impact in various areas of developments.

In the climate – change Agreement, signed in Paris In December 2015, 8 proposed steps are clearly indicated. Timely forecast of the disasters, mutual support during the danger – period etc. are given great importance in this. As per this Agreement, Early warning system, Emergency preparation, Delaying of calamities, deliberate giving-up of unavoidable losses, comprehensive impact evaluation, Accident – Insurances, mitigation of non-financial losses, rehabilitation of communities etc. should be given more importance.



THE CHANCES AND CHALLENGES BEFORE INDIA

India was critically present at all the three global Agreements of 2015 in connection with sustainable development. Even though India is the second largest country in the world in population and the sixth fastest growing economy, the maximum number of poor people, children without nutritious food, and a majority of illiterate people are living in India itself. That is the reason why India is keeping an active attitude towards global goals aimed at sustainable development and disaster-management.

India has arranged scientific and technical systems at various legal and institutional levels for disaster – management. These are precautionary measures in order not to lose human lives when natural disasters like tornados strike. However, these measures are not considered to be practically effective in the case of the flood that happened in Uttarakhnad, Shrinagar and Chennai, or the cloud explosion that occurred in South Sikkim or in the event of landslides. Road accidents and technical disasters like industrial accidents would continue to happen. Biological disasters like epidemic diseases and heavy rains would happen again. Great anxiety still exists in urban residential areas where environmental disasters like water scarcity and air-pollution are increasing fast. After the Kutch Earthquake of 2001, India's potential to manage earthquake – disasters has not been assessed till now. Experts on many an occasion have already given warning about subsequent disasters that are likely to befall following a big earthquake when it happens anywhere near thickly populated cities.

India does have the traditional and scientific know-how to know beforehand the risks of natural and man-made disasters. But these are not given for the designing and execution of the socio-economic development project at the right time. On the other hand, some of our projects meant for development, themselves cause disaster-threats overtly and covertly.

Through several new enterprises such as Make – India, Skill-India, Digital India, Swachh-Bharath – Abhayan, Smart City – Mission, our country has begun advancing in the path of economic strides. It is no exaggeration to state that within the next 15 years, the socio-economic growth of India will push back that of the previous four decades. This will be implemented in the manner of mitigating the disaster-threats in the field of Planning, Designing, Executing of Development Projects in various areas etc.



Although the major agenda in all the phases of development was mitigation of disaster-threat, we could not make much achievement in this direction. The National Disaster-Management Authority has not put forward any common guidelines for this, nor the various Ministries or Depts. of the Central Govt. have developed any precise plan of action for the mitigation of disaster for their respective areas. If the Paris Climate Agreement and the Sustainable Development goals are combined to implement the Sendayi Framework, the challenge of disaster-threat in India could easily be encountered to a great extent.

Out of the 17 sustainable Development Goals that the United Nations Assembly has approved, 8 are connected with Disaster – Management in Various fields. They are given here under:-

SUSTAINABLE DEVELOPMENT GOALS CONNECTED WITH DISASTER – MANAGEMENT

Goal - 1 Wipe out all forms of Poverty

Goal - 2 Quench hunger, achieve food-security, encourage sustainable farming

Goal – 3 Ensure healthy living

Goal – 4 Ensure comprehensive education of consistent quality

Goal – 9 Prepare basic infrastructure that can accommodate changes

Goal – 11 Make cities and residential areas safe and permanent

Goal – 13 Defend climate – change and its impact

Goal – 15 Restore the health of the Earth

BELOW is the Programme with emphasis on the implementation of the Goals:-

- ☒ Reduce the exposure of the common people to extreme climate/disaster area.
- ☒ Strengthen the power of the general public to live with climate – change, hostile day-time atmospheric condition, flood etc.
- ☒ Give early warning information on health problems connected with disasters.
- ☒ Establish educational institutions as far away as possible from the disaster – prone area.
- ☒ Prepare basic development amenities with the least disaster – risk potential.
- ☒ Take steps to reduce maximum human and financial losses when the disaster has broken out.
- ☒ Improve human – resource potential when facing disasters related to climate and nature.
- ☒ Take urgent steps to bring drought and flood affected areas back to their original use.

(The writer is the former Secretary of National Disaster – Management Authority)





Excess – Emission of Ultra – Violet RAYS from the SUN KERALA BLAZES WITH U.V. RAYS

Palakkad: Enormous increase in the State in the measure of Ultra – Violet (UV) Rays released from the Sun! The reasons discovered conclusively for the phenomenon are the decrease in the atmospheric humidity and a naked sky. In most of the areas in the state the rate of UV is more than 10 units. The highest are in Vayanad and Thiruvananthapuram – 12 u. In 2014, the rate of UV had crossed 12u. in Palakkad. Nowhere else had it risen this much. Prof. M.K. Satheeshkumar, Head of the Centre for Atomic and Molecular Physics, University of Manipal, who has been conducting a study on climate – change said that the steep increase in UV would increase the severity of heat giving way to sun-scorch and sunstroke. Maximum emission of the rays is between 10 and 3 day time. Continuous exposure in the sun for more than 15 minutes can cause exhaustion, body-blackening and cataract. It may also flare-up spreading of fires.

UV – INDEX

Kasargod, Kozh ikodu, Malappura, Thrissu, Ernakula, Alappuzh, Kottayam
Kolla, Thiruvananthapuram, Kannoor, Wayanad, Palakkad, Idukki, Pathanamthitta
(The units shown are residue after absorption by the Ozone – layer in the atmosphere)

UV – INDEX – GRADING

Low – 0 – 2, Medium – 3 -5, High – 6-7, Higher – 8-10, Highest - 11

PRECAUTIONS TO PROTECT FROM UV

- Do not go outdoors between 10 and 4 day time as far as possible
- Use sunglasses and sun screens
- Use caps or umbrellas





USE OF GROUND – WATER: THINGS TO KNOW

Dr. P. Indira Devi

The drought in the state of Kerala is becoming national news. The India – Water Portal, has already made the drought in Kerala a news item. It is a case of great anxiety that even while water-scarcity is more and more scaring, our survival – habits are of increasing the consumption of water rather than conserving. The study – result of this subject underlines our carelessness in the field of water-conservation.

While tourism is fast developing, destroying the grasslands and forests that comprise 48% of our Highrange, the rainwater of the area is gushing away faster into the Arabian Sea. Govt. records reveal clearly that the Grassland of 682 hectares during 1998-99 is only 5 hectares in 2014 – 15 (Economic Swiney, Kerala – 2000, 2015)

According to the water-hole Atlas 2010, there are 4354 water – holes in Kerala. 60% of them belong to the small-size category (Below 2.25 hectares in width) Albeit low in number, in width 98% of them are occupied by large lakes – 1, 57,998 Hectares. The average width of large lakes is 90 hectares. And the majority of these large lakes are rural natural lakes! Man-made dams and ponds are also considered to be lakes. The districts rich in lakes are Alappuzha and Ernakulam.

When development – dreams were implemented focusing exclusively on the principle of economic progress, lakes were often considered to be wasteland or marshland. Along with it, due to population density, extra demand for land, investment opportunities etc. resulted in lake-shrinking. This Shrinking is clearly visible in the case of the 'Col-meadows' spread over 54,600 hectares in Thrissur and Malappuram districts. The paddy – cultivation in 25,113 hectares in 1981 has come down to 17,968 hectares in 2013. At the same time, the building activities increased from 350 hectares of swamp – width to 2946 hectares.



Farmers are comparatively unresponsive. Studies reveal that those who rely on the simplest and cheapest method namely earthing coconut husk are a mere 10% only. In the domestic area also, the situation is no better. How many houses are around us that have rain-water harvesting facilities? Much deeper and wider coconut –tree basins that can de facto be defined as traditional rain water – trenches are no more to-day. On the contrary, our modern culture is of laying concrete tiles that do not even permit water to seep through into the ground. The convenience of relying on public water-distribution system leads us to neglect our own sources. This, in turn, increases pressure on public distribution system. This neglect is visible in the matter of cleaning and using water-sources near to us such as ponds and public wells. Public opinion is that it is the duty of the ruling regime to provide drinking – water. The attitude that it is not at all our responsibility to preserve the water-resources in our own premises needs to be changed.

(The writer is Professor in the Dept. of Agro Economic Sciences and Director of the Centre of Excellence in Environmental Economics.)

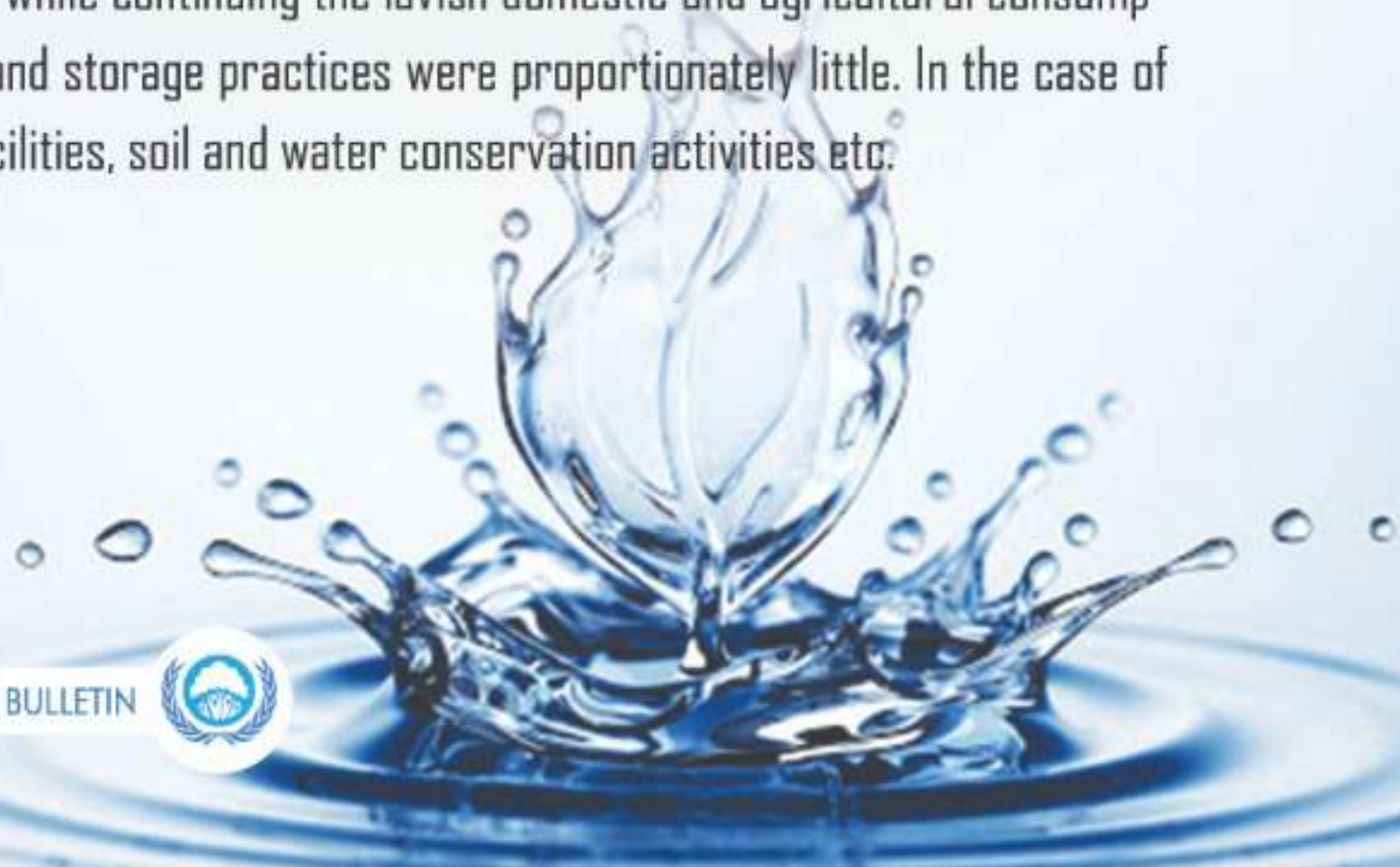


The marshland that has irreversibly been converted to land is 2944 hectares. (from 26572 to 29, 516) In other words, the area continues to remain as lake is only 22,138 hectares including the 17,968 hectares of paddy field and similar area. Remember, it was 27,703 in 1981! That means, 1/5 of the lake has disappeared.

Contradictions in water-preservation can be seen in all fields. Our agriculture – sector mainly depends on underground – water resources for irrigation. They are wells. (including bore-wells) About 40% of irrigated agriculture belongs to this category. Whilst the underground water-level has tremendously been lowering every year and we are worried about its scarcity, our irrigated farming is on the increase. Within the last 15 years, our irrigated farming (well-dependant) has increased by 35,392 hectares. Indeed, the wide-spread cultivation of Banana, nutmeg, vegetables etc. is impossible without irrigation. The irrigating habits of the farmers too are of over-using of water. Filling the plant-basin to the full is generally their favorite practice. This is by far more than the average water- quantity prescribed for each crop for a rich harvest.

Kerala is in a dual dilemma – One situation in which the underground water-level is going down, and the other, the use of the water is going up. The study on Wayanad too is indicating that drought is becoming drier and drier each year. As per this study, the increase in the cultivation of Banana and Arecanut etc. is directly proportional to the increase in the width of irrigated land. This was obvious in the case of the farmers subjected to this study. The irrigated farm land-width which was a mere 5% in 2000, became 13% in 2012. During the same period, majority of those who depended on public sources for water had switched to private wells. Gradually, as the water level was going down, these wells were being deepened and later, the tendency to make bore-wells became rampant.

It is widely seen that even while continuing the lavish domestic and agricultural consumption, water-conservation and storage practices were proportionately little. In the case of rainwater – harvesting facilities, soil and water conservation activities etc.





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UNITED NATIONS ENVIRONMENTAL DAY

JUNE 05 2018

BEAT
PLASTIC
POLLUTION



Awareness Programme
Venue:- Vijaya Higher Secondary School
Pulpally



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UNITED NATIONS ENVIRONMENTAL DAY

JUNE 05 2019 - AIR POLLUTION

Awareness Programme

Venue:- Vijaya Higher Secondary School, Pulpally





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WORLD ENVIRONMENTAL DAY
JUNE 05 2018

BEAT
PLASTIC
POLLUTION



Awarness Programme
Venue:- Vijaya Higher Secondary School
Pulpally



YOUTH SOCIAL SERVICE ORGANIZATION NEWS BULLETIN



Many a Mickle makes a muckle

Didn't you see the radical changes in Kerala's Climate!

Changes due to climate – change in rivers, birds and vegetation to conventional methods that prevailed hitherto environment – friendly, have begun to raise their ugly head. That the phenomenon of the plants on the coastal areas of Kerala, dried up extensively in June, 2015 was owing to heat explosion, is a pointer to the change. Researchers say that such an unusual change in the Equatorial regions is a clear proof of climate – change.

Heat Rises

According to the statistics of the weather-Dept, atmospheric temperature of Kerala rises by 0.010 every year. Record heat of 41.80 was recorded at Palakkad in April, last year. In six decades, the average rise in temperature has been 0.990. The heat-wave rumored about happening only in North India and the sunstroke are frequent in Kerala. Vayanadu district is where climate-change has been bringing about the most visible changes. Here, in the place of 25.30, the maximum heat recorded end March, 2012, it has been 34.20 this year.

SLEEPLESS NIGHTS

Reasons:- Because night – temperature rises. The mechanism of the body to compromise with heat goes in disorder. This affects the Circadian Rhythm which in turn is likely to effect changes in human behavior itself.

THE MANGO-SEASON

Now-a-days, the mango tree has been flowering in Kerala at any time of the year. Well and good! But, it is due to very high temperature. How? Because, 'the Sensors' which are the temperature –indicators within the fruit trees are activated by rise in heat.



PEACOCKS AND MIGRANT BIRDS FLY IN

Kerala has become a place of choice for many a species of migrant birds seen only in deserts. First in history, 'Painted Storks' as many as 250 nested at Kumarakom. Bird-watchers have spotted upto 500 of 'Rosy Paster' birds at Thirunakkara in Kottayam, which are natives of the hot regions of North India.

RAIN CHANGED, FARMING TOO

The gateway of Monsoon moved northward from Thiruvananthapuram to Kozhikodu and Mangalapuram. There has been ups and downs in raining every year. The ph value of rainwater is reduced due to the chemical pollution in the atmosphere. This is detrimental to agriculture.

LIGHTNING, LARGE DROP - SIZE

The killing-power of rain has increased due to the increase in drop-size. Increase in the number of lightening is yet another change.

Depression, NEW DISEASES, NEW VIRUS

Changes in human behavior spread of disease and depression are indications of changes in the atmosphere. Another indication is the advent of genetically - mutated new viruses and new diseases. Diseases caused by fungus and bacteria are on the increase. Many species of mosquitoes seen only in African deep forests have reached here. Chikungunia, H-1 NI, Seeka Virus, Virus inducing Japan-Fever etc. are already prevalent in Kerala

FARMER'S CALENDER OUT OF DATE

Scientists like Dr. M.S. Swaminathan confirm that paddy-farming as per the conventional Farmer's calendar of Kerala has become impossible. Mangoestin, nutmeg etc. which are due to flower in December, flowered this year in February. Honey-bees are disease - stricken due to heat; hence fall in honey production.



DRUMSTICK AND JACK FRUIT

Jack fruit and Drum-stick trees are flowering abundantly in the hot summer season! Because, due to the increase in the amount of carbon dioxide in the atmosphere as a result of heat, the production of the fruits of many crops have thrived. Many hill-plants are migrating towards higher places in search of cold weather.

JUNGLE – LEAVING WILD ANIMALS

Wild animals are leaving their forest – homes for human residential areas in search of water and fresh food. Their attacks are becoming frequent. Spreading of wild fires due to scorching heat inside the forests is another reason for their runaway.

KING COBRAS COME TO COUNTRYSIDE

Unlike man who regulates body-temperature through sweating, beings belonging to the reptile Family do not have such a mechanism. Hence their habitat – shifting to residential areas in search of coolness.

DESERT FORMATION

450 square feet of cultivable land at Ramakkalmedu, Kumbummedu, and Bodimettu in Idukki District has become barren growing only cactus plants. Many a plant and bush growing only in the dry regions of Tamil Nadu are growing abundantly at Ramakkalmedu. As per the study conducted by the Agriculture University from 1984 to 2009, the temperature in the High range has increased by 1.46 on average.

NORTH KERALA MOLLUSC AT SOUTH EASERN KOZHENCHERRY!

Salt-water-cascade into Periyar River and Peroor river in Kottayam! Lake-fishes like Pearl Spot are found in Bharananganam, east of Pala. A couple of years back, bivalve Mollusc, a sea-water Species, a well-known north Kerala delicacy, was discovered on the pillars of Kozhencherry – bridge. Ray fish are seen in many rivers of Kerala. Dead turtle were found afloat in Kumarakam in January, probably due to the high acidity of the water.



ORANGE AND CABBAGE IN THE COCONUT-COUNTRY

Orange is growing in many parts of Kerala now. Cold climate vegetables such as cabbage and cauliflower which can grow only in the rain-shadow areas of Marayoor and Vattavada have been acclimatized now to crop in any place in Kerala due to dramatic climatic changes. Indian labour-num tree which flowers only during the Vishu festival, the Malayalam New Year season is now flowering at any time of the year!

WHERE ARE THE FROGS?

The number of frogs are dwindling. Shoals of Sardine are leaving the shores of Kerala. River-fishes are fewer, as the acidic nature of water is adversely affecting their existence.

DECREASE IN MILK

Due to rise in heat, milk production is decreasing. So much so that hybrid varieties of domestic livestock are to be kept in air-conditioned stables.

DO YOU KNOW that according to studies published by the British Medical Journal, "for every 1 degree Celsins rise in environmental temperature, there could be an increase of more than 1 lakh new cases of diabetes in the United States alone."

In Summary, Kerala has evolved as a novel climatically – revolutionized state.

The command that the evil signs before our eyes gives is this

"Maintain the cool and green of our country by earthing raindrops and protecting water resources."

