

# Development

October 2012

Monthly Development update from DHAN Collective

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## Feature

**Foundation Day  
One lakh people out of poverty**



DHAN Foundation celebrated its Sixteenth Foundation day on 2nd Oct, 2012 in different states of our country in which we are working. DHAN has enabled one lakh poor families to move out of poverty which was a tremendous achievement. The event also remained as a platform to launch some new initiatives.



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## From the Editors' Desk

Dear Readers,

Greetings!

DHAN Foundation took birth on 2nd of this month sixteen years ago and this issue carries the special coverage of Foundation day celebrations at Madurai. DHAN Foundation was celebrated which much more enthusiasm in different states were DHAN has a presence and a gist of such celebrations also is given in this issue. Green autos an initiative to replace two stroke engines with four strokes was done in Madurai Urban and the article speaks on the need for switching over to four stroke engines. The Vice chancellor of Tamilnadu Agricultural University Dr.K.Ramasamy, a person with concern for environment and agriculture delivered a special lecture on the dialogue session on "Agricultural Biodiversity and Agricultural Prosperity" the article on which features in this issue. Articles on Folklore campaign to keep the city clean of open defecation and other wastes was held in Madurai, grassroots stories on hurdles faced by farmers in applying tank silt to agricultural lands and how dairying helped a Kalanjiam member to enhance her living standards also features in this issue. Know your heritage page captures the historical and pilgrimage importance of Theerthamalai in Dharmapuri District, Tamilnadu. News about the development issues across the country and globe is presented to keep you updated.

The readers are welcome to give their suggestions and feedbacks on the articles featured in the development matters. They can send their mails to [dhancdc@dhan.org](mailto:dhancdc@dhan.org)

Happy reading!

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# One lakh people out of Poverty



DHAN Foundation celebrated its Sixteenth Foundation day on 2nd Oct, 2012, in its new office premises. DHAN Foundation was involved in the process of poverty reduction through its thematic institutions and has reached over one million people in the process. The ultimate impact of this program is to enable people to move out of poverty and DHAN efforts were successful in relieving more than one lakh families out of poverty. This was declared in this event and the members who moved out of poverty were honored which remained as the highlight of the event.

The event was presided over by Mr. Shanmugham, IAS, Finance Secretary, Government of Tamilnadu who presided over the function. In his presidential address, he said that in his early life he experienced how cruel

was the hands of poverty, when good food was out of reach of his family, though they owned three acres of land. He felt that it is heartening movement to look at the people who have decalred themselves out of poverty. In Tamilnadu, inequality prevails across different districts, Kanyakumari district is better off, with only 10 per cent of the people below poverty line, while districts like Ariyalur, Perambalur and Dharmapuri have higher percentages of people in poverty even above 45 percent. "This disparity should be removed" he said. "Financial support, health and educational services coupled with efficient delivery of such services with special attention to such backward districts, will help people to come out of poverty. I strongly believe that even a slight difference in approach of the existing government policies can do wonders in making Tamilnadu march ahead of others in reducing poverty. Inclusive development is possible only if agriculture and allied activities are given due focus in our policies and programs. Adequate infra structural facilities should be created in rural areas for agricultural growth. Though growth of a country is measured in GDP, the real growth is when a country says proudly that it has revealed considerable percentage of its people from poverty. I feel personally glad that DHAN Foundation was able to bring one lakh people out of poverty out of 10 lakh people it works with" Mr. Shanmugham added.





Shri M.P.Vasimalai, the Executive Director of DHAN Foundation in his speech said that “DHAN Foundation has crossed the milestone of reaching its development works to one million poor families. We have used different type of tools and did family level study, which revealed that around one lakh families have come out of poverty because of our efforts, which brings immense satisfaction to us. We have planned to reach another five lakh families in the next five years. DHAN Foundation knows very well that success is not possible without coordinating with relevant stakeholders and hence we are constantly working with other stakeholders so that we can increase the efficiency of our operation. Hitherto we have limited our works to tanks and cascades of tanks. Now we have planned to renovate 2000 tanks under Gundar river basin with the support of Government and banks. We are also planning to integrate our efforts with Tamilnadu government and establish District level counseling centers for poverty reduction, which will have a family based approach. We were able to reach more number of people by developing people leaders, who were selflessly involved in the process. More number of such leaders will emerge and they will lead the people institutions promoted by DHAN.

The members of the people institutions promoted by DHAN Foundation, who had their life changed from poverty to self-sustained living, shared their experiences and how they used the support of people institutions to come out of poverty. They also took a pledge to relieve others those who are clutches of poverty by providing desired support. Mrs.Shanthi Maduresan of DHAN Foundation explained in brief about the efforts of DHAN Foundation to guide people to come out of poverty.

Mrs.V.K.Padmavathi, Chief Executive of Kalanjiam Foundation appreciated the poor people, whose support

made possible the substantial growth of Kalanjiam movement in the past decade. Kalanjiam now operates with 245 people institutions promoted across different contexts viz Urban, Rural, Tribal and Coastal contexts. She also said that DHAN changed its strategy to involve more number of partners to reach out to poor across 12 states in the country. The fund support by the people is very much commendable as they meet the cost of operations of the people institutions by themselves in most of the federations. The Senior program executive Mrs.Jothimani of AIR, Madurai spoke on the topic “Poverty Reduction and Empowerment of women” and lauded the Kalanjiam women who are showing the way for others for making a positive change in their lives.

The DHAN Staffs who newly joined the institution to undertake development work at the grassroots took pledge to work for the noble cause of poverty reduction. Mrs.Gene Watson, from New Zealand who even being in her eighties, was providing her support to destitute children in DHAN-Karunai Illam was appreciated for her untiring efforts and for the book she wrote with social concern during the event .Ms. Annette Houtekamer, Corporate Social Responsibility Manager, ACHMEA, Netherlands was also lauded for her efforts to ensure micro insurance to poor.

A book “Handbook for Panchayat Raj and Governance” in Tamil written by G.Palanithurai, K.Vallinayagam, N.S.Chidambaram and K.Subramaniam was released during the event by Mr.Shanmugam, IAS, Chief Secretary, Finance, and Tamilnadu. This book was brought out with the support of Panchayat program of DHAN Foundation. This book was the first book published by Reflection Books, a publishing unit promoted by DHAN which aims to capture the knowledge and experiences of grassroot development



works in all its books. SUHAM Trust, the Health arm of DHAN Foundation which is implementing various health programs and has promoted SUHAM Hospital, launched another initiative “SUHAM Institute of paramedical Sciences” which offers various nursing courses. The launch was done by Mrs. Annette Houtekamer. Mr.Rajapandian, CEO, SUHAM Trust, briefly explained progress of health program over the years. Another project “Vaanam Thoduvom” aimed at creating a platform for youth to exhibit their talent in short film making by providing technical support and also channelizing their efforts through proper media got launched. The morning session ended with the vote of thanks given by Mr.Gurunathan, Chief Executive of DHAN Vayalagam( Tank) Foundation.



In the afternoon there was two separate dialogue sessions- one for people functionaries and other for professionals from various fields. In one session Dr.K.Ramasamy, Vice chancellor of Tamilnadu Agricultural University with rich academic experience and two post-doctoral degrees delivered a lecture on Agricultural Biodiversity and Agricultural prospects. He said India was blessed with diverse varieties of agricultural crops, which underpins agricultural productivity and hence responsible for agricultural sustainability. He said crop diversity is important for both functioning of ecological systems and functioning of vast array of ecosystem services. Agricultural biodiversity offers immense potential to meet the food requirements serving as a natural resource capital. The flow of services through the farmers, research institutions and scientists are the interest gains received through this capital. The sustainable management of these resources, however is the global concern as increasing population and global technological

advancement are putting pressure on these plant genetic resources. He also narrated the efforts taken by the university to conserve these genetic resources and admitted that more crops are to be included in future. Currently gene banks exist for paddy, sugarcane, banana and few millets and it has to be extended to other crops including fruits and vegetables. As a future thrust, collaboration at local, national and international level is much needed to preserve the germplasm since all nations are interdependent on plant genetic resources. K.Ramasamy expressed his concern on decreasing involvement of youth in agriculture, which currently remains as a threat to entire sector and the urgent need to protect the village economy by providing suitable infra structural facilities to suit the local needs.

In another dialogue K.Palanisami, Principal researcher and Director, IWMI-Tata water policy research program presented on “Water resources management and Tank irrigation: challenges and opportunities”. He said the demand for water for both agricultural and domestic needs in Tamilnadu is 57725 Mcm whereas the supply is only 46450 Mcm, leaving us a shortage of 24 percent in the current situation. The Major and Medium irrigation projects though incur a high cost can't cater only to meet 15 percent of the annual water potential through the existing 79 reservoirs. Whereas minor irrigation projects by way of tanks ensures 21 percent of the annual water potential through 39000 tanks spread across the state. But he expressed that the biggest challenge is that the net irrigated area by tanks in Tamilnadu has declined by 46 percent in 2009 since 1960. The frequent failure of monsoons, lack of maintenance of tanks, existence of defunct tanks, encroachment and risk in tank fed agriculture has led to this decline. He also suggested some of the best bet options available to address this issue like assessing the actual tank irrigation potential



in the state, mapping tanks (storage/filling/of WPA to C area), and prevention of tank encroachment, re-establishing tank chains and exploring possibilities of piped water supply, integrating tank and watershed programs with NREG. The audience responded well to the dialogue session by asking questions which was clarified by the guest speakers.

Another parallel dialogue on “Organic farming: Challenges and opportunities” was held in which farmers and people functionaries participated in large numbers. A.P.Azagarsami, Natural Moringa Nursery Farm, Pallapatti, Dindugal shared his experiences in natural farming and his research in Moringa to develop a high yielding variety. A constant struggle to breed a high yielding variety by crossing local breeds, resulted in developing a variety called PAVM (Pallapatti Azagarsami Vallimalai Murugan) which he currently propagate in large numbers through air layering. This fetches him an income of around Rs.3 to Rs.6/ lakh every year. He encouraged the participants to do natural farming which will reduce cost of cultivation, retain the fertility of the soil and also enables to produce outputs free of pesticide residues. V.Anthonysamy, Progressive



Organic farmer, Puliyanudi, spoke about “Benefits of Organic farming” and explained how, he could reap the benefits by practicing organic and natural farming in his own land. R.Vasavalingam, President of the Vayalaga Movement spoke about the Gandhian approach of the Vayalagam Institutions in water management. He narrated how vayalgams and their nested institutions were formed, their approach towards conservation of tanks, formation of farm ponds, planning and implementing tank renovation works with the support of the people and the resultant benefits they are enjoying at present as the fruits of their collective work. □

## Development News

### MDG Report 2012



The MDG report 2012 says that the poverty reduction target of reducing the people who suffer from poverty (people earning less than 1.25 dollar per day) by half can be met well ahead of 2015. The proportion fell from 47 % in 1990 to 24 % in 2008, a reduction from 2 billion people to less than 1.4 billion. The target of halving the proportion of people without access to improved sources of water was also met by 2010. Between 1990 to 2010 an additional two billion people got access to safe drinking water, ensuring 89 % of the world’s population with safe water. The slum population reduced from 39 % in 2000 to 33 % in 2012. More than 200 million slum dwellers were benefited, significantly exceeding the target of 100 million fixed. The target has been met or within reach with respect to ensuring parity in primary education between boys and girls, reducing tuberculosis and malaria and in ensuring access for treatment of HIV. However, much progress is not made with respect to reducing vulnerable employment and decreasing maternal mortality. Ensuring improved sources of water in rural areas and gender equality and women empowerment also remain as an issue. More importantly 15.5 % of the global population suffers from hunger according to recent estimates which remains as a global challenge.

# Foundation Day Celebrations- Across the States

## Vishakhapatnam Region- Andrapradesh

The Sixteenth Foundation Day of DHAN Foundation was celebrated in Vizag region. The function started with the prayer, garlanding of Gandhiji's photo and lighting of lamp. Later the regional coordinator of Vizag Ms.Rama Praba briefed about the purpose of the event, the developmental initiatives done by the region and the progress. The highlight of the event was the inauguration of SUHAM primary health care center in the Vizag region, to take care of the primary health care needs of the poor members of Kalanjiam. This primary health care unit was established with the support of



DHAN Foundation and SUHAM trust, Madurai. The Kalanjiam members present during the event expressed their happiness about the new initiative, which they believed that it will reduce their medical expenses greatly. They also assured of support for the smooth functioning of the Primary health care center. Cultural programs including songs and mimicry were held as the part of the event. The event was made a success by the participation of Dr.N.N.Raju, Vice Principal, Andra Medical college and Director, Mental Health care Hospital, Sri M.N.A.Patrudu, Project Director, UCD, GVMC, Dr. Sitarama Rao, Director, Mahatma Gandhi Cancer Hospital, Dr. Deepak , Director, Venkatarama Hospital, Dr. Srinivasa Rao, Senior medical officer, GVMC, B.L. Narayana – Krishna Maternity Hospital, K. Satyanarayana, Director, Janasikshana Samsthan, Dr. V. Kameshwara Rao , Suham Primary care hospital, Mr. Narayana – Mohisin Eye Bank and Mr. Rambabu – Coordinator, L.V. Prasad Eye Institute. Apart from these 250 participants took part in the event including ex-DHANites . The event had media coverage in five newspapers and also in one electronic media.

## Tumkur Region- Karnataka

The Foundation day was celebrated in Tumkur Region at Suvarna Mahotsava Bhavana, Tumkur on 2nd Oct, 2012. The event was Inaugurated by Mr.Ahobalaiah, Tahshildar, Zilla Panchayat, Tumkur and Mr. Puttarangaiah, Tahshildar, Sira, Tumkur. Mr.J.S. Veerabhadran, NABARD, Tumkur in his inaugural address wished DHAN Foundation for its outstanding contribution to the poor people and the society to reduce poverty. He also stressed the need for savings, credit and insurance with appropriate examples and importance of financial inclusion. Mrs. Ahobalaiah, Tahshildar, Tumkur shared in his speech



his association with DHAN Foundation since the Foundation day celebration at Malavalli in 2006. He also appreciated DHAN for functioning without any kind of caste and religious discrimination and rendering its service to all the needy without bias. Mr. Belly Lokesh, Belli blood bank, Tumkur appreciated the women for taking active part in the developmental process and also the need for women empowerment. He also spoke that the women SHGs promoted by DHAN are a symbol of unity and strength and the relevance of the day

being celebrated on the birthdate of Mahatma Gandhi. Ms.Hemalatha, Principal, KSEF University, Tumkur elaborated the issues the women face in the current social set up and the need for their development and empowerment. She said that the SHGs promoted by DHAN serve as a tool to bring gender equality and asked the members present to use all the facilities provided by DHAN by extending their support. Mr. Srinivasan, SBM manager, Koratagere spoke on Gandhian philosophy and how it gets expressed in DHAN's works. Mr. H. C. Gowda, RC, DHAN Foundation, Tumkur shared about the Tumkur region, its initiatives to address poverty and achievement over the years. The Livelihood Initiative for Functional Education ( LIFE) initiated in Tumkur region for imparting skill training benefited 240 members from the tailoring training through this center at Devarayandurga location and certificate distribution for those trained was done during the event. Three special guests, Ms. Narasamma, Mr. Gopalaiah and Mr. Channakeshava were honoured during the event for their service to the society. Over 250 participants including chief guests and different stakeholders participated.

### Chittoor Region- Andrapradesh

**D**HAN Foundation day celebration in Chittoor region was held at P.V.C Kalyanamandapam, Chittoor, which had an overwhelming response from Kalanjiam Leaders, Vayalagam leaders, people staff and other DHAN staffs. Mr.J.Dharmendra Kumar shared the Executive director's 16th DHAN Foundations Day message and briefed about DHAN foundations initiatives in Chittoor region. The president of the each people institution promoted by DHAN presented the details of members who moved out of poverty. Mr.K.S.Sudhakar Rao, Chairmen,

Sapthagiri Grameen Bank, Chittoor who presided over the function spoke about the performance of SHG promoted by DHAN which prompted him to give more loans. He also shared how the members got benefited through the solar units provided through loans with subsidy and lauded DHAN for being awarded with Jindal prize. Later many people leaders shared their experiences and how the life of members of people institutions promoted by DHAN transformed after joining the self-help groups. The highlight of the event is the launch of the SUHAM Curative Care hospital services in SPMS, Tirupathi to provide medical and health insurance services to its members. Dr.M.S. Rao, AGM, NABARD, shared the services provided through NABARD and he assured to provide support to the SHGs under various schemes. The awards for people staffs who are associated in the grassroots developmental works for a longer period and best performance award to those who performed well were distributed during the event. More than 250 people participated in the event along with special guests.



### Solapur Region-Maharashtra

**D**HAN Foundation event celebration in Solapur Region, Maharashtra which had a participation of more than 260 people was inaugurated by Mr. Muluk DRDA, P.D. and Mr. Madhav Korvar, LDM Bank of India. Mr.Muluk in his inaugural speech appreciated the grassroots developmental works done by DHAN in Solapur region and assured his support to the needy wherever possible. Mr.Korvar, LDM, BOI said that the full potential of the SHGs is yet to be harnessed by the banks and he that he will initiate actions to like well performing SHGs through his personal effort. He also appreciated the systems and procedures followed in DHAN promoted groups to ensure their proper functioning. Mr.Shinde, Regional Coordinator, Solapur briefed about DHAN Foundations initiatives in Solapur District and its collaboration with Government of

Maharashtra in implementing the MAVIM project. He also spoke about DHAN's initiative in enabling one lakh members out of poverty. During the event the Barshi Branch and Vairag Branch of Bank of Maharashtra were honored for providing highest number of bank linkages to DHAN promoted SHGs. The Barshi branch has given loan to a tune of Rs113 lakhs to 131 SHGs and the Vairag Branch has given Rs23 lakhs of loan to 34 SHGs. Five people staffs were also honoured with best performance award during the event



The others present during the event were Mr. P.A. Bansode, Chief Manager -RRB Solapur, Sr. Manager from Bank of Maharashtra Mr. Deshpande, Mr. Tambde training coordinator from KVK, Solapur, and more than 260 members from SHGs

### Salem Region -Tamilnadu

The DHAN Foundation day event was celebrated in Salem Region during which more than 300 members from different SHGs and stakeholders from banks and insurance companies participated. The event had a formal inauguration with prayer and lighting of lamps. Ms.Sivarani briefed about the DHAN Foundation and its role in poverty alleviation. She also shared the efforts of Salem region, its various savings, credit, insurance, livelihood and health initiatives. Later the Kalanjiam members who got benefited out of this effort shared their experience.



Mr. Rajaraman, Manager, LIC of India appreciated the efforts of DHAN in enabling Kalanjiam members as evident from the experience sharing by the members. He was in all praise for the SUHAM Secondary care Hospital which has all the facilities for treatment and which also offers this treatment at competitive price. He also shared that even few staffs of LIC got treated in the hospital lured by its service and rate. He appreciated the Kalanjiam members for enrolling in the JBY scheme and availing the benefit of insurance and scholarship. Mr.Sekar, Chartered accountant in his speech stressed the need for maintaining quality of accounts and also ensuring transparency in the process. Mr.Govindasamy, NABARD, AGM appreciated the efforts of DHAN in poverty alleviation and said that NABARD was initiated with the same purpose to enable rural poor to come out of poverty. In the last six month alone nine crores of credit is dispersed by NABARD to the SHGs he added. Mr.Ragupathi, from Sona College said that he is participating in the functions of Kalanjiam for the fourth time and he wished that during the next event, the groups which have done tremendous achievement in the livelihood aspect should share their experience. Mr.Sivaprakash, Branch Manager, Indian Bank, Veerpandi shared that though he has joined just last month in the branch, he was moved by the prompt repayment that Kalanjiam SHGs do and also the volume of transaction. He has forwarded a loan amount of Rs1,65,00,000 to 47 Kalanjiams and expects that they will repay that without any default. He also appreciated the Kalanjiam members and wished them a good future. The Foundation day ended with vote of thanks and National anthem.

The event was a grant success with the presence of more than 500 SHG members

## Gaya Region

**G**aya Region celebrated the Foundation day of DHAN Foundation at Fatehpur block office with community, movement workers and professionals working in the region for the third time in succession. The event met its purpose of revisiting the commitment to work with people for the development. The Talisman of Mahatma Gandhi was read out to inculcate its meaning and relevance. The community was informed about the significance of celebrating the foundation day on Mahatma Gandhi's birth anniversary. The progress and achievement of Kalanjiam and Vayalagam program in Gaya region was shared with the participants and the leaders by Mr. Tushar Krishna, DHAN Foundation. He also stresses the need for further gearing up of livelihoods and income generating activities to enable the members to come out of poverty.



Mr. Gopi Verma shared that Kalanjiam /SHGs/MFGs which operates on the principle of mutuality by way of collective savings and lending has created mutual trust on a higher scale among 11000 member families organized in 580 SHGs, 25 Gram Aahar-Pyne Vayalagams, 4 Pyne level associations and 36 MFGs. He also focused on leaders' active participation in strengthening Kalanjiam and associations and group's contributions bringing self-reliance among the members. He emphasized on the need of institution building for holistic development.

Further leaders from Kalanjiam and Vayalagam shared their experiences and impact of the collective efforts of the organization and the community. Leaders from Vayalagam programme shared the effective renovation works done by the pyne associations, their collective efforts in achieving the desired result, its benefits and overwhelming response from the members of the associations. They expressed their commitment for the benefit of the people of his area by taking further initiatives. Some of the associates shared their learning and experience working with the community and the organisation. The homage was paid to the father of the nation, Mahatma Gandhi in his remembrance. A cultural event was also organized on the day. There was a gathering of about 100 members of Kalanjiam and Vayalagam from Tankuppa and Fatehpur blocks to celebrate the occasion.



## Development News

### Tamilnadu Agricultural policy note

The policy note on agriculture for 2012-13 by Tamilnadu government is for second green revolution, to improve the economic status of farmers. Increasing the net cultivable area and productivity, soil health and water resources management, crop specific management, strengthening research and extension services and capacity building for excellence are few of the strategies suggested. The thrust areas mentioned are increasing the productivity of land and income of farmers, strengthening and improving agricultural infrastructure, promoting micro irrigation, providing access to quality inputs and bringing fallow lands under cultivation. Of course there is nothing new in the policy note and the success depends on the vigor with which the proposed activities are implemented.

# Green Autos

**K.Ahila Devi\***

Madurai district is one of the 32 districts of the state of Tamil Nadu, in southeastern India. Situated in the banks of river Vaigai, city of Madurai serves as the district headquarters. It houses the world famous Sri Meenakshi Sundareshwarar temple and other important tourist places and heritage sites like Samanar malai, Thirumalainakkar Mahal, Thiruparangundram temple etc.,

Madurai Corporation got its status in 1974 with an area of 52 sq. km. The population of Madurai city is about 12 lakhs. (2011 census) It is a heritage city with tourism visitors about 3 lakhs per day. It is business hub for the nearby districts. So there is a heavy traffic of migration in Madurai, resulting in mushroom growth of 208 slums in Madurai city according to TNSCB.

## **DHAN intervention in Madurai Urban Region**

Kalanjiam Community Banking Programme has been initiated in Madurai City in December 1998. So far 6 Locations have been initiated in this region. We cannot have a specific demarcation or boundaries of a block as in rural places. The blocks or locations, to be more appropriate, are carved out taking in to account location of the slums, concentration of poor people, operational convenience, accessibility and above all priority. At present there are 7 locations of which five are registered federations working with 11207 members in Madurai city limits. Many livelihood, health and insurance initiatives have been done in the region to support the members. Most of the members family were engaged mean jobs, like as daily wage laborers, petty shops, street vendors, house maids, auto rickshaw driving, carpentry, masonry works etc.,

## **The Green auto initiative**

An auto rickshaw or three-wheeler is a usually three-wheeled cabin cycle for private use and as a vehicle for hire. It is a motorized version of the traditional pulled rickshaw or cycle rickshaw. Auto rickshaws play a crucial role as a means of urban public transport in many cities and its popularity is increasing day by day since they provides quick and door service to millions

of people. Production of this type of motorized three-wheeler has doubled between 2003 and 2010 thanks to the increased demand from the public. There are 5 million auto rickshaw drivers in India. In Tamilnadu, there are 2,09,003 registered auto rickshaws and in Madurai alone there are 22724 autos, as of March 2012 according to State Transport Authority, Government of Tamilnadu. Though the newly manufactured Auto rickshaws comes with four stroke engine due to Government regulations, two stroke autos continue to ply the streets which source as a revenue for family of auto drivers. The two stroke engines are estimated to produce 50 % more pollution than the four stroke engines. They emit high noise, dense smoke, Carbon Monoxide (CO), Carbon dioxide, Nitrogen Oxides (NOx), Hydrocarbons (HC) and Particulate Matter (PM). Their presence in the environment causes a number of respiratory diseases and other illnesses. For example, CO and NOx are notorious irritants of respiratory system and have potential suffocating action. PM causes premature death, and illness. Its presence is accompanied by increased hospital admissions for asthma and other bronchial conditions such as bronchitis, etc. Higher Carbon dioxide contributes also contributes to Climate Change.

Strategies to improve urban transport must include a policy vision for this increasingly important sector. This rapid urban population growth in many cities has strained existing public transit networks and made walking and cycling increasingly difficult, prompting many to acquire and use personal motorized vehicles for their daily transport needs. While urban population has expanded dramatically across the developing world, motorization has exploded, which has led to increasing traffic congestion, decreasing road safety, and increasing emissions of air pollution and greenhouse gasses. To that end, this initiative proposes the role the auto-rickshaw sector can play in promoting sustainable urban transport in India.

DHAN Foundation promotes activities that are economically viable, environmentally and socially sustainable. DHAN works in the Urban context for the

past 12 years and exploring the possibilities to address the reduction in the CO2 emission with the participation of the local communities. Hence the following activities were done by the foundation.

- In collaboration with JNNURM (Jawaharlal Nehru Urban Renewal Mission), the largest Urban development initiative of Government of India, our region has taken-up initiatives for providing basic civic amenities to the slum dwellers by organising them into Self-help groups and contextualising microfinance for urban poor.
- In collaboration with Department of Environment, DHAN Foundation has organised mass scale awareness event called “Madurai Marathon” on “Climate change adaptation” with the participation of 30000 people to build awareness on Green House Gas emission and plastics usage.

In this context, this initiative to **Scale up a replicable and integrated model of sustainable auto-rickshaw transport based on clean technology in the working slums of Madurai city** is planned in Madurai District. Among the urban livelihoods, Auto driving is the one of the major livelihood. Among Kalanjiam members family there are nearly 450 drivers mapping which includes share auto also. The major objective of the initiative is to organize auto drivers and to make autos economically, environmentally and socially efficient for both the operators and passengers.

#### **Key issues to be addressed through green auto initiative**

- Improper permit and fare policies resulting in increased socio-economic burdens on drivers
- Lack of access for drivers to employment benefits, such as health insurance and pension plans, additional revenue sources (i.e. advertising) and financing
- Lack of a brand image, and problems associated with driver behavior, such as refusals and overcharging
- Poor vehicle maintenance and operational inefficiencies (i.e. empty trips,) resulting in negative environmental impacts
- Preference of individual owner-operators towards two-stroke engines (due to the ease of repairing,) which are significant polluters of particulate matter (PM) emissions, which have harmful health impacts
- Lack of organization of fleet and access to technology to provide value-added services, such as dial-a-rickshaw (DAR) services

This will be ensured by creating auto rickshaw drivers organizations and strengthening of existing organizations, awareness creation on the advantage of 4 stroke engines over 2 stroke engines by adopting different strategies, Developing the savings and credit products to suit their needs and demands, Training on how to access to the financial products developed and support rickshaw drivers to get access to social security

#### **Expected outcome**

The achievement of this result will contribute to the adoption of 4 strokes engine auto-rickshaws by a larger number of auto rickshaw drivers which are the central target group of the action. Hence, production of this greener and more sustainable vehicle will be promoted by the action, benefiting both auto-rickshaw producers and auto-rickshaw drivers.

1. Specifically, auto-rickshaw producers will be engaged by facilitating access to these eco-friendlier products to the auto-rickshaw drivers' organizations through established partnerships, thus they will be addressing one of the major problems in the sector Auto-rickshaw drivers' organizations will progressively increase their concern towards environmental and social issues.
2. The design and availability of new financial products will guarantee a better and a more efficient financial system that considers all critical elements influencing the bankability of the working poor in the different contexts. As a result, drivers will become effectively bankable and they will be able to avoid moneylender's exploitation.
3. Drivers will also be informed and trained on how to progressively adopt some financial saving patterns that will help them improving their families economical and social condition.
4. This project will work on to ensure accessible and sustainable social protection systems, which not only provide protection, but also adopt preventive approaches, support rehabilitation and reintegration.

#### **Inauguration of the Green Autos initiative In Madurai urban**

DHAN Foundation has initiated an effort to reduce these air pollution hazards by giving support for converting the two stroke engines to four stroke engines with the support of Enviu Foundation ([www.enviu.org](http://www.enviu.org)),



founded by Stef Van Dongen Netherlands, a pioneer in the fields of sustainability and innovation and Jan Nijssen, a former Global Pensions Head and CEO of ING Central Europe Insurance who currently owns Montae, a financial services company.

An event for spreading awareness regarding pollution hazards of two stroke autos was organized by Karumbalai Vattara Kalanjiam, Madurai promoted by DHAN Foundation on 9th Oct, 2012 in which more than 20 auto-drivers from Periyar auto-stand, Gandhi Nagar.

Speaking on this event Mr.M.P.Vasimalai, Executive Director said “Air pollution due to Commercial vehicles is on increasing trend in Madurai city and the two stroke autos still remains as an important contributor to this pollution. The Carbon dioxide concentration in air has increased from 275 ppm to 384 ppm, in the past twenty years, which is also responsible for increasing hazards of climate change in recent years. Hence we are forced to adapt to these climate change”. He also added “DHAN Foundation now plans to create awareness of these problems to auto-drivers by organizing them into an association, with the support of Kalanjiam Federations in the Madurai city.

Stef Van Dongen of Enviu Foundation, Netherlands who presided over the function said “ Enviu foundation has organized auto-drivers in Bangalore to form “ Three wheels united limited, a social business initiative which supports auto-drivers to convert their two stroke autos to four stroke autos. It also support auto-drivers to earn additional income and gives them training to be part of social and environmental initiatives in the society”. He felt glad that such an initiative was taken up in Madurai and thanked DHAN Foundation for providing the field support for the same.

The regional Coordinator of Kalanjiam SHG Federations in Madurai Urban Ms.Akila Devi in her speech said ” auto-driving is the primary profession of spouse of 450 Kalanjiam women, most of them owns/drives two-stroke auto rickshaws. To convert two stroke auto rickshaws to four stoke ones, they have to incur an expense ranging from ₹4000 to ₹6000/, fearing which they are reluctant to such a change. Hence we are planning to give awareness regarding the environmental issue, provide financial support through loans and also organize auto-drivers to form SHGs. Two such groups were formed and twenty more groups were planned in near future”

As part of the event ₹4000/ was given as a loan to the auto driver Mr.Karupaiah, of Periyar Auto stand.



## Development News

### Go LED

LEDs, or light-emitting diodes, are a form of solid-state lighting that is extremely efficient and long-lasting. While incandescent and fluorescent lights consist of filaments in glass bulbs or bulbs that contain gases, LEDs consist of small capsules or lenses in which tiny chips are placed on heat-conducting material. LED lights though costly have advantages like outstanding life like 100000 hours, energy efficiency of 80 to 90 % compared to conventional lighting, free of toxic chemicals and 100 % recyclable, zero UV emissions, instant lighting and can function even under very low voltage conditions. When you use traditional incandescent bulbs more energy is consumed to heat the room than to light the room.

# Agricultural Bio-diversity and Agricultural Prosperity

Dr.K.Ramasamy\*

Biological diversity is the variability among all living organisms existing on earth in various ecosystem and ecosystem complexes. This diversity is the basis of continuous evolution of life forms and in turn maintaining the life-sustaining systems of the biosphere. The conservation of all biological diversity is a common concern of human kind and it is vital to anticipate prevent and tackle the causes of loss or reduction of biological resources. The dependence of human beings on biological diversity is undoubted, as evident in everyday life. The food, fibre, fuel, fodder, shelter, health and other needs of the growing world population are dependent on various components of biodiversity. It is also recognized that plant genetic resources for food and agriculture are a common concern of all countries and they depend largely on plant genetic resources originated elsewhere.

Agricultural biodiversity is the key for food production and supply. In one view, agro-biodiversity is a part of natural capital, and flows of services is the interest on the capital (Kontoleon et al.2009). Farmers and breeders use biodiversity to adapt crops to different and changing production environments. Crop biodiversity is thus very important for both the functioning of ecological systems and the generation of vast array of ecosystem services. Agricultural biodiversity can be split into two broad categories. The first consists of the genetic resources for food and agriculture (GFRA) that provide food and other essential harvested products from domesticated crops and domestic animals (including fish and other managed aquatic animals, and their wild relatives, and fungi and microbes that support food processing. The second comprises all those non-harvested components that contribute to and sustain agricultural productivity by provisioning, supporting and regulating ecosystem services that underpin agriculture.

Agricultural productivity fortifies agricultural productivity and therefore makes a critical contribution to agricultural sustainability.

The sustainable management of natural resources is the primary global concern, as increasing population and rapid technological advances are putting tremendous pressure on these resources. Plant genetic resources (PGR) are one of the essential components that hold the key to the very foundation of agriculture as well as food and nutritional security of the world. The advent of modern plant breeding brought with it a greater need for biodiversity in breeding materials. Concurrently, novel varieties, particularly hybrids, became widely used because of their higher yields. This in turn, led to large scale replacement of traditional varieties, even crops and rapidly diminishing on-farm sources of potentially valuable genetic resources. This genetic erosion raised concerns for the future availability of PGR.

The green revolution introduced high yielding varieties of rice and wheat to the developing world, replacing farmer's traditional crop varieties and their wild relatives on a massive scale. The same process continues today. New, uniform plant varieties are replacing farmer's traditional varieties and the traditional ones are becoming extinct.

- In India, recent survey by M.S.Swaminathan Research Foundation has indicated that 19,000 rice land acres in 18 districts of Chhattisgarh state have been eroded after the introduction of High yielding varieties. Similar trends exist in our delta zone also.
- In the united states, more than 7000 apple varieties were grown in the last century. Today over 85 % of those varieties (>6000 varieties) were extinct. Just two apple varieties accounts for more than 50 % of the entire US crop.
- In the Philippines, where small farmers cultivated thousands of traditional rice varieties, just two green revolution varieties occupied 98 % of the entire rice growing areas later.

The same is true with animal genetic resources. The introduction of modern breeds that are better suited for

high production demands of industrial agriculture has displaced indigenous livestock breeds worldwide.

- FAO's 1995 Watch list for Domestic Animal Diversity predicted that of the 4000-5000 breeds thought to exist, some 1200 to 1500 breeds worldwide are under the threat of extinction. If only 5 % of these breeds are being lost every year, then the average rate of breed loss could be about three breeds every two weeks.
- In India, just 3 decades after the introduction of so called modern livestock breeds an estimated 50 % of the indigenous goat breeds, 20 % of indigenous cattle breeds and 30 % of indigenous sheep breeds are in the danger of disappearing.

## Centres involved in conservation

### Biodiversity International

Biodiversity International was founded in 1974 and is the world's largest international institute with the mandate to advance the conservation and use of genetic diversity for the well-being of present and future generations. This biodiversity mission is to encourage, support and undertake activities to improve the management of genetic resources worldwide so as to help eradicate poverty, increase food security and protect the environment. Biodiversity International focuses on conservation and use of genetic resources important to developing countries.

### The CGIAR Collections

The Consultative Group on International Agricultural Research (CGIAR), established in 1971 is a strategic partnership whose 64 members support 15 international centres, working in collaboration with many hundreds of government and civil society organizations as well as private businesses around the world. For nearly three decades, eleven CGIAR centres have collected, conserved, studied and used a wide range of crop, forage and other genetic resources in their research and developmental works.

Today, the centres maintain as much as 60 % of the unique samples of major world food crops. The collections held by the CGIAR gene banks are among the largest in the world and probably the most important for the livelihoods of the poor and ensuring global food security. Under the terms of the International

Treaty on genetic resources for food and agriculture, the International Treaty on Food and Agriculture, the CGIAR centres hold these collections in trust on behalf of the humanity. As trustees, the centres must ensure the genetic resources are kept safe and the germplasm and related information are made available, without restriction to anyone who needs them.

ICRISAT was established in 1972 by CGIAR to serve as an international research centre for genetic improvement of a set of cereal and grain legume crops of particular importance to the food security and livelihoods of people in the semi arid tropics. Dr. Rajendra S. Paroda, Genebank, ICRISAT genebank has a very large active collection of the mandate species comprising 113849 accessions of its mandate crops viz., sorghum, millets, chickpea, pigeon pea and groundnut.

### Gene Bank at IRRI

Constructed in 1977 and upgraded in 1994 is the gene bank at IRRI has international standard facilities for medium and long-term storage of rice seeds at subzero temperatures, a seed drying room, and screen houses for multiplying and maintaining wild rice species and low seed stock germplasm. More than 100 countries have donated germplasm to the IRRI gene bank for safe, duplicate storage. The collection now holds more than 90000 samples of cultivated rice and wild species most of which are traditional varieties belonging to *Oryza sativa*.

### ICARDA

The International Centre for Agricultural Research in the Dry Areas (ICARDA), Syria gene bank holds samples of 131000 accessions of seeds of different crops namely barely, beans, chickpeas and lentils. During 1996, CIMMYT constructed a new gene bank storage facility: the Wellhausen-Anderson Plant Genetic Resources Centre for medium and long-term storage. Currently, the CIMMYT maize collection consists of 25609 (+) accessions. Of these, 21,767 (+) accessions are from South and Central America, including Mexico and the Caribbean region.

### AVRDC

AVRDC the world vegetable centre was established in 1971 to promote the production, marketing and

utilization of vegetables in Asia and beyond with an ultimate purpose of improving the health of people in the tropics through an adequate supply of plant proteins, vitamins and minerals. AVRDC houses one of the largest collection of vegetable germplasm in the world. Over 50000 accessions are held in trust for the global community.

### **The Global Seed Vault**

The Svalbard Global Seed Vault (SGS) established in the permafrost in the mountains of Svalbard opened during 2008 on a remote island in the Arctic Circle, receiving inaugural shipments of 100 million seeds that originated from over 100 countries. Built near the village of Longyearbyen on the island of Spitzbergen, the vault at its inception contains 268000 distinct samples of seeds- each one originating from a different farm or field in the world. These represent the agriculture of 220 countries and have already been catalogued, coded and moved into the vault. The SGS is intended to ensure genetic variety for the world's food plants by storing duplicates of seed collections from gene banks all over the world, and will have storage capacity for over four million different samples. Contingencies for climate change have been worked into the plan. Even in the worst-case scenarios of global warming, the vault rooms will remain naturally frozen for upto 200 years. If seed samples are lost somewhere in the world due to natural disasters, wars or resource shortages, they may be re-established with seeds from Svalbard.

### **NBPGR**

The National Bureau of Plant Genetic Resources (NBPGR) is the nodal institution at national level for management of PGR in India under the umbrella of the Indian Council of Agricultural research, New Delhi. The Bureau after its creation in 1976 has developed a very strong Indian Plant germplasm Management system which operates in collaborative and partnership mode with other organizations. The system has contributed immensely towards safeguarding the indigenous crop genetic resources and introducing useful PGR from other countries for enhancing the agricultural production and productivity in the country.

The NBPGR head quarters houses the National Gene Bank which is primarily responsible for conservation of germplasm on long term basis as one of the components

of the network. It is one of the well-equipped and best organized facilities for ex-situ PGR conservation in the world. All major and minor agri-horticultural, plantations, agroforestry and other economic species are being conserved in the NGB.

The National gene bank conserves primitive cultivars and land races of cultivated crops and vegetables associated with traditional agriculture and inbred lines of released hybrids, released varieties and any survivor varieties that have fallen out of fashion wild species closely related to crop plants and genetic stocks and populations having desirable genes. Presently the gene bank houses over 0.37 m seed accessions of various agri-horticultural crops.

The gene bank is supported by the active partnership of other institutions/centres designated as the National Active germplasm sites (NAGS). NAGS are responsible for maintaining evaluating and distributing germplasm from their active collections to NGB and other user scientists. So far 57 NAGS network with the genebank. Some of these have been provided with medium term storage facility for conserving active germplasm.

### **TNAU initiative in conserving agro-biodiversity**

Realizing the need to conserve crop biodiversity to meet the future challenges, Tamil Nadu Agricultural University, a pioneer institution of the country in agricultural research, technology development and education has established a gene bank facility first of its kind among SAUs. The gene bank facility is located in the premises of the Department of Plant Genetic Resources (PGR). The gene bank is named after the legendary rice breeder Dr.K.Ramiah. It has an 5000 cubic feet of cold storage space for medium and long term storage. The cold rooms in Ramiah Gene Bank have been commissioned with the state of the art technology for maximum storage efficiency, energy conservation and eco-friendliness.

The gene bank is designed to store up to one lakh germplasm entries including farmers varieties/land races, wild species and cultivars. The seeds of the germplasm accessions intended for storage in the Ramiah gene bank are processed adopting scientific principles of seed storage in a precision controlled packaged dehumidified chamber. The seeds are hermetically sealed before depositing in the cold room.

The estimated storage life of seeds is likely to be 20-50 years depending upon the nature of the seed. The scientists involved in collection, conservation and use of land races/farmers varieties, crop wild relatives of agricultural, horticultural, forestry and forage crops.

Altogether the Ramiah Gene Bank is conserving more than 21000 genotypes of crop plants. Thus by depositing seeds in the gene bank, plant breeders can conserve plant genetic resources, reduce the frequency of rejuvenation and risk of genetic deterioration due to out-crossing and physical admixtures. Thus this facility is serving as a repository for conserving all the agro-biodiversity of the resource rich region.

### **The Biological Diversity Act of India, 2002**

Keeping in view, the vast diversity and traditional knowledge based on use of this biological diversity, the Biological Diversity act of India (BDA) was formulated after India became signatory to the CCBD in 1993. It was developed through an intensive consultation process involving central government, state governments, institutions of local self-government, scientific and technical institutions, experts, non-governmental organizations, industry etc., This act was passed by the parliament in December 2002, and has the following objectives based on the principles of CBD

- To regulate the access to biological resources of the country with the purpose of securing equitable share in benefits arising out of the use of biological resources and associated knowledge relating to biological resources
- To conserve and sustainably use biological diversity
- To respect and protect knowledge of local communities related to biodiversity
- To secure sharing of benefits with local people as conserves of biological resources and holders of knowledge and information relating to the use of biological resources
- Conservation and development of areas important from the standpoint of biological diversity by declaring them as biological resources
- Protection and rehabilitation of threatened species
- Involvement of institutions of self-government in the broad scheme of the implementation of the Act through constitution of committees

For effective implementation of the BDA, the central government is obliged to undertake activities, national strategies, plans and programs for conservation and sustainable use of biological resources with the following institutional mechanisms. These are national biodiversity Authority (NBA), State Biodiversity Boards (SBBs) and Biodiversity Management committees (BMCs)

- The NBA deals with matters relating to requests for access by foreign individuals, institutions or companies and those relating to transfer of results of research to any foreigner.
- It takes measures for identification and monitoring biodiversity rich areas and notifies threatened species
- The NBA, also takes measures necessary to oppose the grant of intellectual property rights in any country outside India, on behalf of the Central Government on any biological resources which is derived from India.
- SBBs constituted for every state in India deal with matters relating to access by Indians for commercial purposes and restrict any activity which violates the objectives of conservation, sustainable use and equitable sharing of benefits.
- Institutions of self-government in their respective areas constitute a BMC for conservation, sustainable use and documentation of biodiversity and chronicling of knowledge relating to biodiversity.

In order to promote biodiversity conservation towards food security, the following policy suggestions can be considered.

- Enlightened landscape planning and management that allows for multiple functions in landscapes and enables the balancing of development and environmental goals.
- Development of sound agricultural policies that recognize and value the role of biodiversity in agricultural development and food security.
- Markets and institutions for ecosystem services and payments or governance for ecosystem service systems that work for farmers and poor rural people.

### **Suggested action plans to attain agricultural prosperity**

- Efforts to protect and conserve agro-biodiversity hotspots to be intensified

- Effort should be made to protect the indigenous variety of food crops and domesticated plant diversity
- Genetic erosion on major food crops should be prevented with a view to ensure their continuous existence of such species
- People should be educated about the importance of biodiversity towards food security
- Low input sustainable agricultural practices should be encouraged with a view to protect the soil biodiversity.
- There is a need to encourage research on crop germplasm collection and preservation
- Gene banks to conserve farmers varieties and crop wild relatives has to be established
- Mobilize the resources needed to increase productivity including research and the review, approval and adoption of biotechnology and other new technologies.
- Enable all farmers, particularly women and small holder farmers from countries most vulnerable to climate change, to adapt to, and mitigate the impact of climate change.
- Support national, regional and international programmes that contribute to improved food security and animal and plant health.
- Encourage the consumption of foods, particularly those available locally, that contribute to diversified and balanced diets.
- Address the challenges and opportunities posed by biofuels.

The declaration of the recent world summit on Food Security (FAO, 2009a) highlighted the issue of investments in agriculture specifying that these should be directed more consistently towards sustainability, by increasing and supporting sustainable agricultural production and productivity through development and implementation of practices aimed at conservation and improved use of the natural resource base, protection and environment and enhanced use of ecosystem services.

#### **Key aspects of improving food security identified by the World Food Summit declaration that particularly involve agricultural biodiversity**

- Increase production including through access to improved seed and inputs; reduce pre and post-harvest losses; pay attention to small holders
- Implement sustainable practices, including responsible fisheries, improved resource use, protection of the environment, conservation of the natural resource base and enhanced use of ecosystem services.
- Ensure better management of the biodiversity associated with food and agriculture; support the conservation of and access to genetic resources and fair and equitable sharing of the benefits arising from their use.
- Recognize that increasing agricultural productivity is the main way to meet the increasing demand for food given the constraints on expanding the amount of land and water used for food production.

#### **Future thrust**

All countries are interdependent for their PGR requirements and cannot acquire and conserve resources to satisfy all their needs. There is a need to collaborate at local, regional and international levels for the acquisition and conservation of the germplasm. There is a need to adopt complementary conservation strategies involving both in situ conservation and ex situ approaches. For in situ conservation due attention is required to be given to genetically rich hotspots including tribal belts and to strengthen and expand the network of germplasm conservation by including all the stakeholders, including the communities. It is also necessary to assess the germplasm collection in the genebank to understand the gaps and also identify the duplicates.

Characterization and evaluation are essential to promote the utilization of materials. A large number of germplasm is yet to be properly characterized and evaluated. At present, only a few collections have a complete and user friendly documentation. Registration of genetic stocks and elite germplasm need to be encouraged, to promote germplasm exchange and effective utilization. In the changing global scenario under the new IPR regimes, modalities for benefit sharing by both private and public sectors will also have to be worked out. Awareness generation of the people at various levels (policy makers, scientific, administration, farmers etc.) about the value of natural resource wealth and its protection is needed.

# Keep City Clean

“People living in congested urban atmosphere must give importance to maintain hygiene and sanitation in their living area. If people cooperate, dengue can be controlled easily” said Mr.Rajan Chellapaa, Mayor of Madurai Corporation.

The “Folklore awareness Campaign on Open defecation and Dengue Fever” in Madurai was inaugurated by Mr.Rajan Chellappa, on 12th October, 2012 at Kattabomman Nagar, 40th ward in Sellur. The campaign was aimed to enable people to keep their surroundings clean by using toilets and also preventing stagnation of water in any form in their residential area to prevent dengue fever and other health hazards through folk dance, street play, posters and notices. The campaign was jointly organized by Madurai Corporation, Kalanjiam SHG Federations and DHAN foundation. The campaign will continue till 20th Nov, 2012 covering 100 wards in Madurai Corporation. Mr.Rajan Chellappa in his inaugural speech said that “Population of Madurai Corporation has increased to 15 lakhs and meeting their drinking water needs in some wards has become a problem, due to monsoon failure. However we try our best to solve this problem. I request the people to express your constraints to the wards counselors and concerned engineers, for initiating immediate action. “Dengue is now spreading in Madurai and we have joined hands with DHAN Foundation to spread awareness on dengue control through folk lore campaigns. People support is very important for dengue control” he added.

Speaking on the event, the Madurai Corporation commissioner Mr.Nandhagopal said “Prevent rain water and other clean water stagnation around your house. Water will stagnate in unused tyres, coconut shells, broken plastic containers and pots which serve as breeding ground for Ades mosquito which spreads dengue fever. Ades mosquito bites only during day time and not at night”. Nandagopal also said that only Government hospitals in Madurai have sufficient medicines and tablets to Dengue fever and asked the people to approach the hospital during early signs of



fever, so that it can be cured easily. The disease will take time to cure if people remain careless about the symptoms. This awareness campaign is to be held in all wards of Madurai Corporation with the support of DHAN Foundation, the commissioner added.

Mr.Maduram, Engineer, Madurai Coporation said that Open defaecation is the cause of many health issues in urban areas, particularly as source of water borne diseases. Tamilandu government has allocated crores of rupees for both individual and community toilet construction. He asked the people to avoid open defaecation and also prevent people doing so, to make Madurai district free of communicable water borne diseases.

Mr.R.Gopalakrishnan, Deputy Mayor of Madurai coporation, Mr.M.P.Vasimalai, Excecutive Director of DHAN Foundation Regional Coordinator of Kalanjiam Federations, Mrs.Akila Devi, Madurai Mr.Madhankumar, Program Leader, Center for Research, Madurai, other ward counsellors and general public were present during the event.

The leaflet and posters on Open defecation carried the following message

## **Avoid Open Defaecation –Use toilets**

### **Let us Know**

- In our country a child dies for every 15 seconds due to water borne diseases



- Every year 3.77 crores of people get affected by diseases that spread through water contamination
- 58 % of the Indians defaecate in open, contributing to the sanitation issues
- In Tamilnadu 51.7 % of the houses do not have toilets
- Open defaecation pollutes tanks, ponds, roadsides, farm lands etc.
- The women who waits for sunset to defaecate in open areas suffer from constipation problems, sexual harassment, insect bites and depression and other psychosocial problems.
- One gram of human faecal material approximately contains more than 1 crore viruses, 10 lakh bacteria, 1000 parasites and 100 eggs of parasites.
- The above germs in human faeces spread through unclean hands, house flies and other insects and through water. This creates a favourable situation

for spread of diseases like Malaria, diarrhoea, other stomach ailments, leprosy, typhoid etc.,

- Open defaecation in farm lands, facilitate the carrying of germs through vegetables, greens and other crops grown there if they are consumed without proper washing .
- Walking in bare foot, enables hook worms in the faeces to enter into human body and cause anaemia and other health issues.

#### What we have to do

- Avoid open defaecation. Construct toilets in individual houses and use them properly
- If there is no toilet in the house, use public and common toilets. Maintaining the common toilets clean and hygienic is the responsibility of every individual.
- Wash your hands and legs thoroughly with soap and water after using toilet
- Educate your children at the younger age itself regarding toilet usage and other health and hygienic practices to take care of their health
- Do not defaecate or urinate in waterways. Also ensure that the water does not get polluted by other wastes.
- Create awareness to everyone regarding toilet usage. Practise and preach.

□

### Development News

## Tuberculosis in India is a notified disease

Tuberculosis caused by *Mycobacterium tuberculosis* was declared a global health emergency in 1993, but still it is growing unchecked. Tuberculosis (TB) is causing millions of deaths every year worldwide and like any other disease, the occurrence and spread of TB is more severe in developing countries. The World Health Organization's (WHO's) global tuberculosis report 2012 reveals that India and China have more incidence of TB accounting for 40 percent of the total TB incidence worldwide. More than one lakh patients are put on treatment each month in India. The case detection, incidence, prevalence and treatment success figures are based on data drawn from the Revised National Tuberculosis Control programme (RNTCP). With the current systems and machinery early and effective TB treatment and control in India remains difficult. The government has been denying the presence of multiple drug resistant TB, but the growing incidence has forced it to make it a notified disease. It has made mandatory for all private hospitals, laboratories, nursing homes and doctors to report every incidence of TB detected since approximately one million TB cases go unreported every year. It has also laid a ban on serological tests (smear microscopy) by June, 2012 which is more than a century old method and which cannot detect multiple drug resistance. Xpert MTB/RIF test which has maximum efficiency and which can give results in less than two hours is recommended. Widespread use of such diagnostic tools that provide quick and accurate results and also indicate drug resistance will go a long way in battling the epidemic.

# Tank silt application

R.Adhinarayanan\*

## Background

Rainfed agriculture is the major livelihood occupation of farmers in T.Kallupatti block of Madurai district. Farmers used to grow Cotton, Cholam (Sorgham), Cumbu (pearl millet), Kudhiraivaali (Barnyard millet), Gingelly (Sesamum) and Makka Cholam (Maize) under rainfed conditions. To maintain the fertility of the soil, improve its texture and to increase the water holding capacity of their rainfed lands, by tradition, farmers used to apply tank silt to their lands.

Tank silt is the nutrient rich soil that settles in the naturally formed tanks, which gets its nutrients from the organic debris that the runoff water carries along with it before it reaches the tank. Removing the tank silt regularly maintains the depth of the tank and ensures that the tanks full capacity is retained. Even through MNREGA program the tank silt is removed, for deepening the tank, but the silt is not put to proper use.

## The issue

The 1953 minor mineral acts, permits the farmers to collect tank silt and use it for agricultural purposes. Many tanks in T.Kallupatti district have tank silt, which can be used only for agricultural purposes. However few tanks are located in red soil and the silt from it can be used for other purposes like brick kiln, earthen road formation and for other construction purposes. In Madurai district illegal quarrying and mining for gravel and granite, occurred to a large extent, making many tanks to extinct and hills to disappear and agricultural lands, being encroached. The government started following stringent measures to curtail these activities. Unfortunately the genuine farmers, who use tank silt also, were made to bear the effect of these measures. Strict guidelines were laid and each and every farmer has to submit a proof that his land lies within the limits of revenue village where the tank is situated and obtain a permission to collect tank silt.

## Representation to Tahsildhar, Peraiyur

This has made farmers to run pillar to post. This forced twelve farmers in Kilangulam village to draft



a letter seeking permission for tank silt application to the Tahsildhar, Peraiyur taluk. The Tahsildhar gave a reply that he did not have powers to sanction permission for tank silt collection, but has powers only to prevent it. The then collector Mr.Sagayam, IAS, visited Kilangulam village on an official visit and the farmers represented this issue during a village meeting. The collector said that nobody can prevent the farmers from using the tank silt and gave oral permission to farmers to collect tank silt. After his visit Tahsildhar, Peraiyur asked the villagers to submit individual request for tank silt application. Twenty two villagers submitted their request to the Tahsildhar by May 2012. But no action was taken. In this situation, the collector got transferred and a new collector was posted.

## Struggle with AD-Mines Madurai

The Tahsildhar instead of giving permission, forwarded the letters from farmers to Assistant Director- Mines, office in Madurai. During this period farmers group were formed under the Climate change adaptation pilot project which was initiated in October, 2011, which had tank silt application as one of the project intervention seven villages of T.Kallupatti block. This issue in tank silt application was brought up during the Climate change adaptation village level association meetings. The farmers from these villages decided to collectively address this problem and met the Tahsildhar. He replied that I have sent a letter to AD-Mines, Madurai and asked the farmers to go and meet the Ad-Mines directly. The

farmers went and met AD-Mines, who again directed the farmers to obtain separate No Objection certificate (NOC) for collecting tank silt from T.Kallupatti Block development officer. But the block development officer delayed sanctioning of NOC. This issue was represented to the Madurai collector, through the facebook site of the Madurai collector office. It gave immediate results and NOC was given by the block office. Again the farmer went and met the AD-mines. The illegal quarrying and mining in Melur taluk of Madurai district was hitting the headlines of newspaper and it had become a big issue then. The collector was directly supervising the mines department. The AD-mines hence asked the farmers to meet the collector directly and get permission. The farmers, being made to run from pillar to post sought the support of DHAN Foundation which is implementing the CCA program to address this issue. A representation was made to the collector, who said that only farmers can come and request permission. The farmers went and met the collector who said that they can meet the AD-mines and get permission for tank silt application. The farmers approached the AD-mines three times again and yet they were not able to get the permission.

### Issue remains unsolved

By the time the sowing season has started and nobody could apply tank silt to their lands. The effort of the farmers is continuing. The farmers represented this issue to the local panchayat, which now has decided to pass a resolution for merging MNREGA program with tank silt application in Grama sabha meeting that is to be held in Jan, 2013, which will have a double impact of maintaining the tank and also satisfying the needs of the farmer. Even if the permission is granted in January it will help the farmers to take the summer crop.

### Voices of farmers

We used to apply tank silt to our lands from time immemorial. But now we were unable to apply tank silt. When Tank silt is applied, our soil used to be more fertile, retain more water and texture of the soil will be too good helping crop growth.



- **P.Guruvammal**, 57 years Kilangulam

We had 40 pairs of bullocks and enough bullock carts in our village. We used to collect loads of tank silt using bullock carts and apply it to our lands. Now the bullock carts have vanished. The government also has laid many regulations that prevent us from timely tank silt application. We have to go through lot of government procedures to get tank silt and this consumes our lot of time and money. This has made us to give up the practice even though we know tank silt is very good to retain the moisture content in the soil. We welcome the efforts of the project to revive the practice of tank silt application



- **Raja s/o Sonai**, 55 years, Sökkampatti

Before twenty years we had more than 20 bullock carts in our village, using which collect tank silt from Chinnapoolampatti tank and Peraiyur Periyakulam tank, and apply it to our lands. The bullock carts got vanished and we now use tractors to collect tank silt. But since the government is very strict in preventing tank silt collection, no one in our village applied tank silt this year. Only when tank silt is applied the land will be fertile and we can get good results .



- **Subburaj S/o Perumal**, 52 years, P Avarampatti

We are not able to apply tank silt to our rainfed lands for the past two years. The government is very strict in preventing collection of tank silt. We made many representations to the VAO, Tahsildhar and the Collector, Madurai seeking permission for tank silt application to our farm lands. Even then we did not get the permission. Atleast we should get the permission next year.



- **Backiyam S/o Kanda moopar**, 65 years, Kilangulam

# Theerthamalai

India is a land of cultural heritage and spiritual diversity. Visiting places with sacred value through Pilgrimage tours is believed to bring goodness to the life of people all over the world and this makes India a destination for spiritual tours. In the south Indian state of Tamil Nadu, there are many such pilgrimage sites of which Theerthamalai has its own importance. The Theerthamalai literally means hill of Sacred waters



The hill situated 16 km away from Arur of Dharmapuri district, has a temple amidst the bountiful nature the very sight of which gives a divine peaceful feeling.

This Theerthagariswarar Temple is surrounded by five Sacred Springs (Theerthams) which are rich in medicinal value, credit of which goes to the diverse medicinal plants growing naturally in the hills. These Theerthams never dry, thanks to the ever flowing water throughout the year from the crevices of the rocks. The five Theerthams are named as Gowri Theertham, Kumaara Theertham, Raman Theertham, Agni Theertham and Agasthiyar theertham.

Apart from these the hill has other Theerthams all around it. The Yeman Theertham exists in a place called Veampattu. Varuna theertham and Vaayu theertham were believed to exist near Varunageereswarar koil near Arur bus stand. Anuman theertham exists six km away in the center of the river Pennaiyaar. Indira theertham exists in the east of the hill in a place called Mondukuzhi.

Each of these Theertham has a mythological story and a historical significance behind it carried over years by the resident people. People believe that all their sins get washed away if they take a sacred bath in these theerthams. So many people from different places visit this place, take a bath and worship the lord Theerthageeriswarar. The medicinal value of these theerthams is also believed to cure many diseases.

The Theerthageeriswarar temple apart from its divine value is a place of historical importance, standing as a symbol of Chola kingdoms architectural wonder. This temple was constructed by Rajendira cholan 1000 years

ago. The stone inscriptions in the temple walls stand as a proof of its historical significance. These inscriptions have the names of the famous chola kings- the third Kulothungan, Third Rajendiran and also have a mention of Vijayanagara kings like Veerapukkana udaiyaar, Veera Vijayarasadevar and Mallikaadevar.

The period of these inscriptions dates back to 900 years to 1800 years A.D. The temple also has 1000 years old sculptures of Sabthamaadha and Kottravai.

At the foot hill of theerthamalai, there is a big temple within an old fort. All the major festivals are celebrated here, which attract huge gathering of people. During the commencement of the rainy season, known as Aadi peruku in the name of the month in which the event happens, people take bath in large numbers in the Anuman theertham and Theerthamalai. This festival which begins on a full moon day gets celebrated continuously for 10 days. The celebration of Kaarthigai dheepam ( festival of sacred lamps), thousands of people throng this place, take a sacred bath, light lamps and then visit Thiruvanamalai, where the festival is celebrated with much more galore.

Theertha malai has other places of historical importance around it. In Arur block there are many such old temples and monument stones called Nadukarkal in memory of great warriors. This monument dates back to 5th century A.D. In Thooval, a place in the north of Theerthamalai runs the Pennaiyaar river which flows very calmly, the beauty of which beholds the visitors eyes and entralls their minds. □

# Step by Step in the ladder of success

**Yesammal\***

I am R.Selvi, from a remote village Kaverirajapuram, near Thiruvallangadu in Kanchipuram District, Tamil Nadu, India. Our village thrives in the mercy of rainfall, agriculture the major livelihood activity being dependent on it. Agricultural labourers can get only 10 days of employment in a month and hence forced to borrow from money lenders at exorbitant interest rates. There were 300 families in the village of which only 25 had literates. Even they did not give much importance for the village development.

## Joining Kalanjiam

I had a pitiable childhood. I was brought up by my father since my mother expired when I was a small child. I married my husband out of my own wish and works as an agricultural labourer and a farmer. I along with my husband lived with my father and mother in laws as a joint family, and later started to live separately after giving birth to three children – one son Mr.Sivakumar and two daughters Miss.Seetha and Miss.Kalpana. We struggled a lot to raise our kids since agricultural work was seasonal and we got a meager income.

I joined Kalanjiam under this circumstances and when income was not enough even to meet our day to day expenses. This insufficient income made me to borrow from local money lenders for emergency needs at exorbitant interest rates ranging from 60 % to 120 %, with a tag of weekly repayment. We were struggling hard.

It was then Mr.Latha, the Project Executive from DHAN Foundation in Thiruvallangadu and Mrs.Raakamma and Mrs.Mallika from Nedumbaram village came to our village. They organized the women in our village and spoke to us about the self help group concept and how the Kalanjiam SHGs can help us to save and guide us for enhancing our living. There were no self help groups in our village then except for one. Few members joined together to form Annai Therasa Kalanjiam and I too joined with much hesitation. Since then from October, 1997 I have been a member of Annai Therasa Kalanjiam. When I joined Kalanjiam, I have to manage

the family with the meager earning of Rs40/day and I had a doubt whether I can save. However I decided to join much against my husband's wishes and without his knowledge. With much difficulty, I managed to save from my own earnings.

Annai Theresa Kalanjiam group meeting got held twice a month. I started saving Rs10/ every month. I had a doubt in my mind since our village has the experience of getting fooled by persons who collected Chits and ran away later, because of which many women lost their money. However later I realized that the amount was only within our members and there was no chance of us losing money. I also increased my savings gradually to Rs25/, Rs50/ and then to Rs100/-

## My first Investment

After joining Kalanjiam I borrowed small amount of loans ranging from Rs1000 to Rs 3000/ till 2001 to meet external debts and family expenses. This support enabled me to stop borrowing from money lenders for emergency needs. In 2001 our Annai Theresa Kalanjiam, got revolving fund of Rs25000/ and it was decided in the group that this amount should be used effectively for the benefit of the member. Three members got a loan from this amount of which I got Rs8000/ for purchase of milch animal. The kalanjiam also gave Rs800/ from its amount for insuring the milch animal. The animal gave birth to calf and fetched good returns for two years. Unfortunately, the cow fell into a trench and died. The insurance amount also could not be recovered since I was careless about the insurance tag in the ear which went missing. However, knowing the returns through cattle I subsequently purchased a bull for ploughing and later again a cow during 2005 and 2009 by borrowing a loan of Rs10000/ and Rs15500/ respectively.

This time luck favored me and the cows got multiplied and right now I have 10 cows

## Improvement in my family status

My husband leased agricultural lands and does farming, apart from being a laborer. I too used to go only for

agricultural labor work. After purchase of milch animal, I was forced to spend time on looking after the cows and presently I do not go for labor work and I am fully engaged in rearing milch animals and cattle for ploughing.

Meanwhile my children also grew and I thought to invest on their education. The scholarship amount of Rs1200/ which comes as additional benefit because of enrolling myself in the group insurance scheme Janashree Bhima Yojana, supported the schooling of my children. I have availed this scholarship 7 times to educate my 3 children. Initially I joined the JBY scheme with much reluctance and thought it as waste of money, but it was much useful to me later.

For I.T.I education of my son, I was forced to borrow from external sources. In 2010, I borrowed Rs15000 from Kalanjiam to close that loan. My daughter who completed 12th also wished to do teacher training in a private institution. Since I had loan outstanding in Kalanjiam, I was hesitant to ask loan again and explored for money elsewhere. But it got delayed and the time of admission was nearing. I had no other option but to rely on Kalanjiam. I expressed my plight in the Kalanjiam and requested for a loan of Rs35000/ with a promise that I will close the existing outstanding. The group members agreed and the loan got sanctioned. I was stubborn to educate my children as per their wish. I and my husband did not have enough education. Now my son has completed I.T.I, one daughter Miss.Jeyashree 12th and later teacher training and another daughter Miss.Kalpana completed 10th standard.

Gradually our standard of living improved and we had enough money to take care of our day to day expenses. Though I borrowed for education, it was under manageable limit due to the investment made in cattle.

### **A dream come true**

Though there was improvement in our family, from 1997 to 2010 we yet lived in a small hut house. During rains our house will inundate with rain water. In the year 2011-12, the government announced a subsidy of Rs75000/ for constructing a concrete house. For availing this benefit, the proof of having money for investment is must. On 16.01.2011 I borrowed Rs37000

from Kalanjiam, which helped to gain the subsidy of Rs75000/. Now I live in a concrete house and feel much happy about this.

The investment made in cattle and also the struggle I had in educating my children has started paying good returns. My son Mr.Sivakaumar and Miss.Kalpana got employed in a private concern. Miss.Jeyashree after teacher training is pursuing computer education. Presented below is the approximate annual earnings of my family

| S.No  | Income source                 | Amount (₹) |
|-------|-------------------------------|------------|
| 1     | Average income through Cattle | 60000      |
| 2     | Income through agriculture    | 12000      |
| 3     | Salary Income of my son       | 60000      |
| 4     | Salary income of Miss.Kalpana | 30000      |
| Total |                               | 1,73,000   |

The graduation of family from poverty to now self managed situation came through the support of Kalanjiam. While joining the Kalanjiam itself, the member families were categorized based on their income level and living standards and attention is given in the kalanjiam to improve the family status and relieve the member from the clutches of poverty

### **How I Feel**

I did not have any exposure to the outside world before joining kalanjiam and lacked self confidence. My husband will not permit me to go anywhere. However since I performed as a good member of Annai Theresa kalanjiam, I was selected as the Treasurer of the group. I used to motivate other members of the group regularly by reminding them of the rich benefits we reap because of the kalanjiam. I also supported for forming new kalanjiam in my village and now there are 9 kalanjiam functioning in Kaveerirajapuram. My husband is a very strict person. But now seeing my personal development and my confidence and negotiating skills being improved, he used to say that every woman must become like me. He now does not hesitate to send me to kalanjiam meetings and other places. I have another big duty to perform. The marriage of my children and I am confident that there will be no hurdle since Kalanjiam is always there to support me during the need. □

# Globally 870 million are undernourished- FAO

The Millennium Development Goal 1, target 1C with relevance to hunger states that “into halve, between 1990 and 2015, the proportion of people who suffer from hunger”. The recently released report ‘State of food Insecurity in the world 2012 (SOFI 2012) says that the number of hungry people in the world remain unacceptably high, however the progress in reducing hunger is more pronounced than it was originally believed. The new estimate jointly released by UN Food and Agricultural Organization, the International Fund for agricultural development (IFAD) and World food programme (WFP) says that 870 million people are chronically undernourished( one-eighth of the world’s population) in 2010-12 of which 850 million people are in developing countries (14.9 % of the population). The new estimate is made in terms of dietary energy supply, uses national food balance sheet data and new method of statistical analysis. The hunger figures in the new report, hence cannot be compared with the earlier reports say FAO. According to the new estimate the prevalence of hunger over the years is as follows

## Number and percentage of undernourished persons

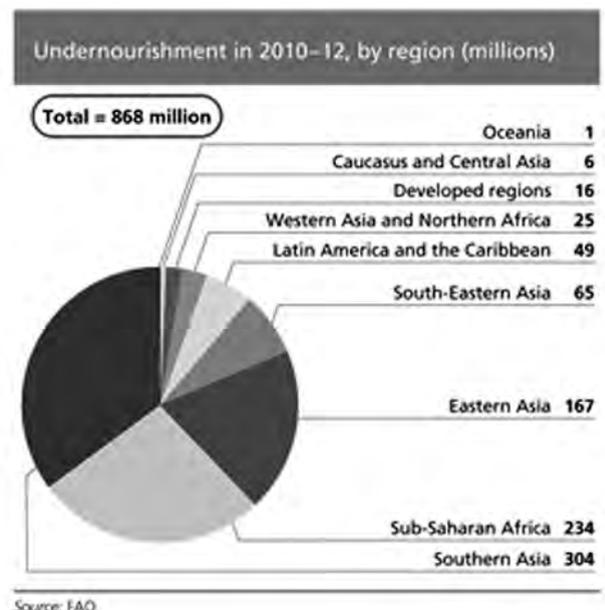
|           |                    |
|-----------|--------------------|
| 2010-2012 | 868 million (12%)  |
| 2007-2009 | 867 million (13%)  |
| 2004-2006 | 898 million (14%)  |
| 1991-2001 | 919 million (15%)  |
| 1990-1992 | 1000 million (19%) |

The data shows that the undernourishment is on decrease and we are well in way of achieving the MDG goal by 2015. FAO also has clarified that the new method of estimation is not to bring the data in tune with the MDG goals, but to present the facts more accurately.

FAO also states that in order for economic growth to enhance the nutrition of the neediest, the poor must participate in the growth process and its benefits and that the economic and growth agricultural growth should be “nutrition-sensitive”. It is also predicted that agricultural

growth, especially that involves small farmers and will contribute greatly to reducing poverty and hunger rather than just being a contributor to the total economic growth. The share of totally economically active population in the developing countries is around 66 % (2009), whereas their contribution to the total GDP is far less. This leads to people working in agriculture getting a lower income and hence once the growth in agriculture can help such poor people. Provided the income inequality is not excessive, the agricultural growth is found to reduce poverty among poorest of the poor, according to some studies. However this will vary from country to country.

Social protection through safety nets aimed at poor and small farmers, with more focus on women enabling them to get hold of more resources, since they are more capable of having positive impact on family welfare is also strongly recommended in the report. Last but the least the public policies and programmes should create a conducive environment for pro-poor long term economic growth for which an improved governance system, based on transparency, participation, accountability, rule of law and human rights, is essential for the effectiveness of such policies and programmes.



## Middlemen in Agriculture

Involvement of middlemen is the biggest problem in marketing of agricultural produce. Both the farmers and the end users are affected due to unethical business practices followed by middlemen.



# Millets renewal for food and nutrition security



Farmers involved in rainfed farming are extremely vulnerable to climate change and their farming systems have always been in response to the climatic aberrations. They cultivate local varieties of millet, pulses and oilseeds, which can withstand extreme weathers. Millets can grow under low rainfall conditions and therefore can support farming in the most challenged ecological zones, and rescue farmers from climate change and energy crisis. They can be cultivated with either none or very minimum external inputs such as fertilizers, pesticides and other chemicals. Despite all these advantages farmers' interest in these crops in terms of production and consumption has declined drastically due to several agronomic, socio-economic, and political reasons. Revival of millets and pulse based cropping systems could address immediate major problems of food and nutrition security in large tracts of rainfed lands.



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