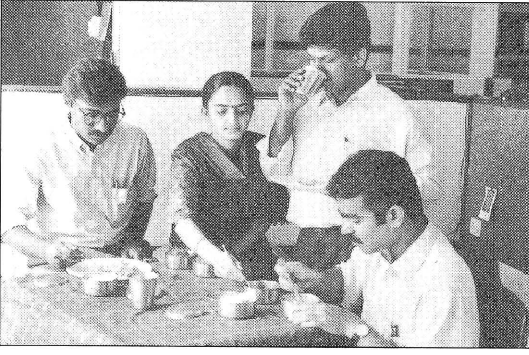


Tamil Arasu

DECEMBER 1999 Rs.5



நமது அன்றாட பழக்கவழக்கங்களால், எய்ட்ஸ் வராது. அதற்கு நீங்களே ஒரு உதாரணம்.

காலையில் எழுந்தது முதல் ராத்திரி படுக்கப் போகும் வரை நீங்கள் எத்தனையோ பேரைச் சந்திக்கிறீர்கள். ஓட்டலுக்குச் செல்கிறீர்கள், சினிமா பார்க்கிறீர்கள், நெரிசலான பஸ்ஸில் பயணம் செய்கிறீர்கள், பலருடன் கை குலுக்குகிறீர்கள்.

இவர்களில் யாருக்காவது எச்ஐவி/ எய்ட்ஸ் பாதித்து இருக்கலாம்.

சாதாரண பழக்கவழக்கங்களின் மூலம் எய்ட்ஸ் பரவுவதாக இருந்தால், உங்களையும் எய்ட்ஸ் பாதித்திருக்க வேண்டும்.

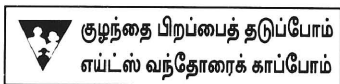
ஆனால் அப்படி இல்லையே...

ஏனெனில், கை குலுக்குவதாலோ, உணவைப் பகிர்ந்து கொள்வதாலோ, தொடுவதாலோ, தும்மலினாலோ, கழிப்பிடத்தை அனைவரும் உபயோகிப்பதாலோ, எய்ட்ஸ் பரவுவதில்லை.

எனவே எய்ட்ஸ் பாதித்தவரைக் கண்டு நீங்கள் ஒதுங்க வேண்டியதில்லை. உங்களுக்கு எந்த ஆபத்தும் இல்லை.

அவர்களும் நம்மைப் போன்றவர்கள்தான். அவர்களுக்கு எப்பொழுதும் போல நாம் அன்பும், ஆதரவும் காட்டுவோம்.

**சிறிதளவு ஆதரவு பெருமளவு
சுமையைக் குறைக்கும்.**



மேலும் விவரங்களுக்கு அணுக வேண்டிய முகவரி :
தமிழ்நாடு எய்ட்ஸ் கட்டுப்பாட்டு அமைப்பு
417, பாந்தியன் ரோடு, சென்னை - 600 008.
தொ.பே.: 8255467, 8255261, 8254917,
24 மணிநேர தொ.பே.: 8256882, 8256864.

TAMIL ARASU

Magazine of the Government of Tamil Nadu

THIRUVALLUVAR YEAR 2030

KARTHIGAI - MARGAZHI

DECEMBER - 1999

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Free Comprehensive Health Care Scheme for the Poor

There are 12,617 Panchayats, 613 Town Panchayats, 102 Municipalities and 6 Corporations in Tamil Nadu. There are about 1,400 Primary Health Centres in rural areas and 364 District and Taluk Hospitals.

Poor people seek the help of doctors and visit hospitals only at the time of their illness. To bring about an awareness on the prevention of various illness among the rural folks and to educate them in the method of prevention, Free Comprehensive Health Care Scheme for the poor has been introduced by this Government. The main aim of the scheme is to conduct free medical



camp at Primary Health Sub-centres level and diagnose various diseases among the poor and give them proper treatment. The other important aim of this scheme is to give utmost care to the people who need continuous treatment,

in addition to the treatment to the needy poor who come forward for checkup and treatment during camps. Free check-ups are made and treatment provided for diseases related to eye, teeth, ear, nose, throat, stomach, diabetes, TB, heart and child birth. Blood tests are done to all persons attending the health camp. This health camp will be conducted in 50 places in every District, every month.

This scheme will envisage health check-ups and treatment to benefit people living in all the Villages, Town

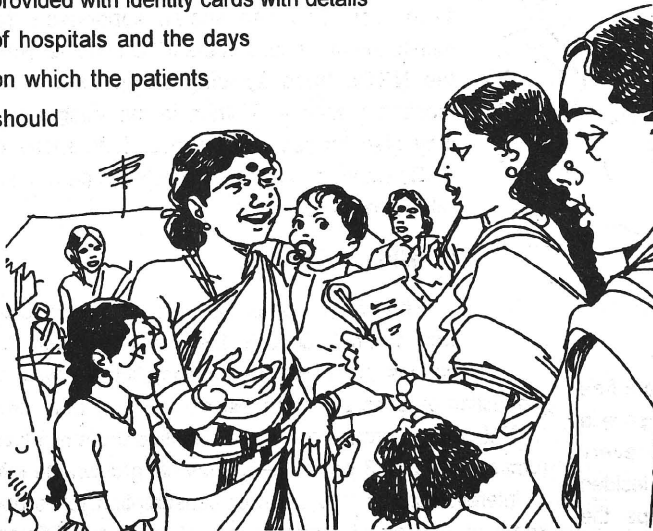


Panchayats, Municipalities and Corporations in Tamil Nadu. A committee will be formed under the Chairmanship of the District Collector to ensure proper implementation of the scheme.

This committee will decide beforehand, everymonth, the 50 places where free health camps are to be conducted and give wide publicity to people about the forthcoming health camps.

Arrangements will be made for exhibitions, illustrations and video films on health care in order to educate the rural masses.

After check-up, the first aid and the medicine will be provided to the patients. If continuous treatment is necessary the patients will be provided with identity cards with details of hospitals and the days on which the patients should



go to Hospitals. The details of the patients needing continuous treatment will be fed into the computer and treatment will be continued.

A Special Officer will be appointed to co-ordinate the implementation of the free comprehensive health care scheme for the poor in the State level.

The services of the NGOs, the district branches of the Indian Doctors' Association, Medical Colleges, Private Nursing Homes and Specialists in the medical field will be utilised for the conduct of health camps.

Concurrent evaluation will be made by an expert committee during the conduct of health camps and defects will be rectified.

★ ★ ★

Tamil Nadu Women Development Project was jointly implemented by Tamil Nadu Corporation for Development of Women Limited, Indian Bank and 'NGOs, since 1989. In continuation of IFAD assisted Tamil Nadu Womens Development Project, Mahalir Thittam is being implemented since June '98 onwards. Mahalir Thittam is an expansion of the IFAD Project. This project lays emphasis on the qualitative and socio economic aspects of development of women rather than more targets. In this unique project which is based on the less ons learnt during the implementation of the IFAD assisted project since 1989-90, the Tamil Nadu Corporation for Development of Women, (DEW) NGOs and commercial banks come together to work to achieve common objectives related to socio economic development.

The Budget allocation for last year was Rs.8 crores for this project. During this financial year Rs.33 crores has been allocated for the implementation of the Project in all the 28 Districts (excluding Chennai).

Formation of Groups

Under this project NGOs select the villages, where the need for intervention is acute. A household survey is conducted in the villages and poor women are organised to form a cohesive, mutually supporting group. At present the Mahalir Thittam groups have members not exceeding 20 though earlier groups were sometimes larger. The group selects among themselves a leader called Animator. The Animator conducts two to four meetings every



month in the evening times, when they are free from daily works. The group members save a regular amount of Rs.20 to Rs.100 every month. The monthly saving amount is decided by the group themselves. In some groups, the

MAHALIR THITTAM - TO ACHIEVE SOCIO - ECONOMIC DEVELOPMENT OF WOMEN

members save as much as they can. Animator facilitates the groups functioning and maintains the group records such as cash book, loan ledger, savings ledger, general ledger, minutes book, receipt and payment vouchers. She is given various modules of training, in different spell for 32 days covering general orientation to accounts and leadership development and so on. For every 17 groups, PIU had posted supervisors for monitoring the groups in the IFAD scheme. Now, the NGOs have appointed supervisors for monitoring Mahalir Thittam in the villages and they also formed cluster level federations of SHGs where groups are interested in networking with other SHGs.

Rotation of Savings

The group rotates the savings mobilized by way of small loans to the needy members for various purposes like consumption as well as production purpose at an interest rate ranging from 24% to 36%. As the groups mature in handling the small loan rotation over 2 to 3 years, the groups bring down the rate of interest from 36% to 24% for consumption loans and some groups adopt variable interest rates for different



Project Implementation Unit also arranges training for NGOs, bankers and line department personnel in attitude change and other related aspects.

Link up with Banks

After the group stabilizes over a period of 6 months or more in the management of its own funds by way of regular meetings, regular savings, giving internal loans and recovering the loans with interest, the groups are linked up with the bank for external credit under the project. The group members are credit linked in a phased manner. The group identifies the activity and discusses the feasibility and viability with the individual prospective beneficiary. Then the group resolves and recommends the loan for specific economic activity.

purposes i.e., for consumption 24% and for productive activities 12% to 18% interest. These small loans repayment is cent percent. As the recycling is fast, own funds increases faster due to the accrual of interest incomes.

Training

To bring about any social change, first awareness has to be created among the beneficiaries. With this in view, training under the project assumes greater significance at all levels and for all the participants. Training is given to the group animators, supervisors and representatives. Now training for members has also been introduced. The training modules are prescribed by Project Monitoring Unit.

Line Departments offers the training on technical aspects to the beneficiaries selected for bank loan, before and after the asset creation.

The joint appraisal team consisting of Bank Manager, Rural Development Officer, NGO, PIU and Line department visits the group and select the borrowers proposed by the women groups.

Banks lend for various activities for example under Agriculture for purchase of Electric Motor, Oil Engine, Power Sprayer under Horticulture for Mango, Guava and Flower cultivation, under Sericulture for rearing of Silkworms, under Animal Husbandry for Dairying, Poultry, Sheep and Goat rearing, under K&VIC for rural and cottage industries and small business.

The application for loan is sponsored by PIU to the concerned branch, where the group has a bank a/c. The group



a/c is jointly operated by the animator and any one of the representatives. For each withdrawal they have to submit to the bank a copy of the resolution of the group indicating the purpose of withdrawal. Given the strengths of the SHGs, increasingly loans without subsidy are also considered by Banks on group/SHG pattern. Such SHG loans are sanctioned on the basis of group savings to the group as a whole. The group jointly decides regarding who the individual borrowers will be SHSY loans with subsidies are also available.

Lending Norms

SHG credit guidelines have been developed at the PMU in consultation with the bankers, NGOs and feedback from the groups. A simple two stage selection has been put in place to :

- a. First screen likely SHGs who may be ready for bank credit.
- b. Second, apply a set of easily understood indicators prescribed to SHGs that pass the first screening test to establish eligibility.

All loans from banks, whether under government programmes like the SGSY or savings linked loan to groups have to meet the SHG credit guidelines. Ofcourse, the group member should have saved a minimum period of six months. The group member should be a woman of age between 21 and 60 years who is considered "settled" in the village. The group member should be from a poor family and not a defaulter under any other government programmes.

The loan amount is credited to the group's savings a/c on getting proper authorization from the members.

As the borrowers under this project are highly motivated, they maintain the assets intact and out of the additional income earned, they repay the bank loan properly. They remit the loan dues to the animators at the group meetings

and she repays the dues collected to the bank. Because there is no chasing of targets and the step by step methodology is followed with continuous followup from all sides, the recovery under the project was high.

The subsidy as per IRDP norms is released by PIU in IFAD scheme. Subsidy is kept in the beneficiary's name in Reinvestment Plan Deposit for 3 years. The subsidy is repayable on completion of 3 years after loan is repaid, whichever is later as an incentives for good repayment. In Mahalir Thittam the group will access both subsidy and non subsidy loans.



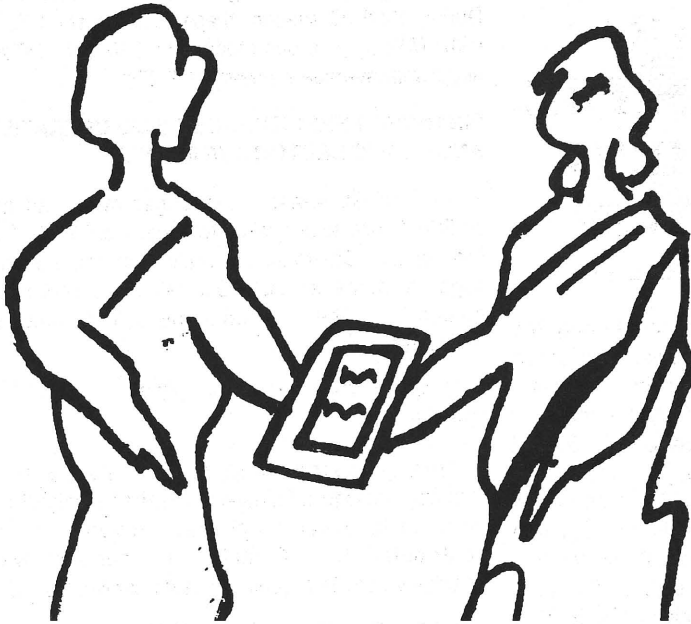
Monitoring

Project Implementation Unit (PIU) Office is headed by Project Officer. The structure has been modified based on experience. Now the Project Officer is assisted by Assistant Project Officers. They are incharge of Implementation Supervision in the District. The NGOs and supervisors also monitors the groups performance regularly. The APO(C) concentrates on credit. Once in a quarter, the branches prepare the overdue list and the groups are informed of the same. These overdue cases are discussed in the regular

Non-Credit Services

Besides focussing on economic upliftment, the groups focus their attention on all-round development of the beneficiaries and their village as a whole. So, the groups take up responsibility of delivering the non-credit services like literacy, health and environmental issues.

The involvement of groups in social issues has earned a good name to the groups in the villages. Many groups have taken up many social activities like provision of borewell, renovation of temples and organising health camps and planting of tree saplings.

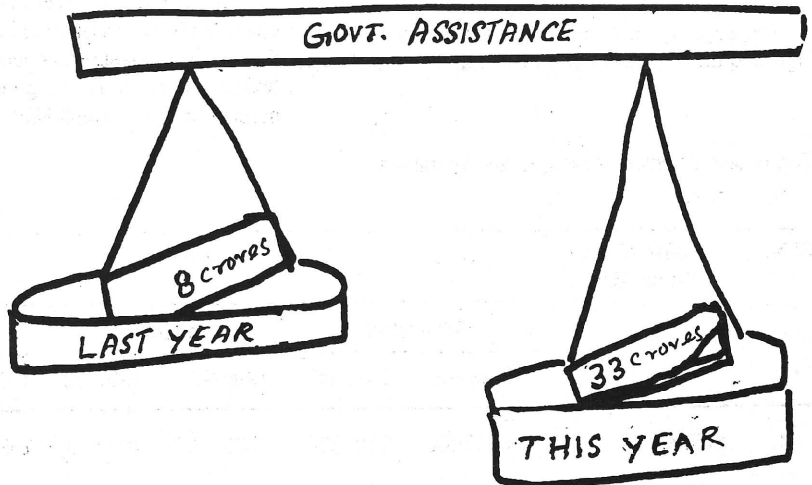


Block Level Co-ordination Committee Meetings also.

At the District level, the DPCC (District Project Co-ordination Committee) headed by the District Collector reviews the project regularly.

Under the project, as the beneficiaries are organised and awareness is created, the required skill is developed through appropriate training before the credit is given, the asset creation is total

and the income generation is real and the repayment is also faster. The beneficiaries are highly motivated to utilise the opportunity given to them for their betterment.



"IFAD PROJECT" is a milestone in enlarging our reach to the poor through rural women.

★ ★ ★

CONTRIBUTION OF SUGAR INDUSTRY IN THE DEVELOPMENT OF THE STATE

increase in output in Tamil Nadu. The average number of crushing days is also higher than the All India level. During 1998-99 season, these mills crushed 75.27 lakh MTs of cane and produced 6.236 lakh MTs of sugar with average recovery of 8.28%

FINANCIAL PERFORMANCE OF CO-OPERATIVE AND PUBLIC SECTOR SUGAR MILLS

In 1998-99 season, the sugar mills had just sufficient cane to achieve a total cane crush of 75.27 lakh tonnes. Due to the low realisation from free sale sugar, high interest costs, and fall in recovery in the coastal belt, the mills continue to face financial difficulties.

GUMMIDIPOONDI CO-OPERATIVE SUGAR MILLS

Gummidipoondi CSM will be established in Puduvayal village in Thiruvallur District for which 80.20 acres of land was purchased. Government has contributed Rs.700 lakhs and cane growers contributed Rs.148 lakhs as share capital.

CO-GENERATION OF POWER IN CO-OPERATIVE SUGAR MILLS

Co-generation plants have been set up in M.R.Krishnamurthy Co-operative Sugar Mills. Cheyyar Co-operative Sugar Mills and Subramania Siva Co-operative Sugar Mills. These co-generation plants use the existing bagasse effectively through high pressure boilers and turbines and generate power and supply surplus power to Tamil Nadu Electricity Board grid.

Sugar Industry is the largest among the processing industries next only to textiles. It contributes significantly to the economy of rural India. The growth of Sugar Industry in Tamil Nadu has been very impressive particularly in the Co-operative Sector and is one of the leading producers of sugar in the country and its contribution is about 10% of country's production. There are 36 sugar mills functioning in this State of which 17 are in co-operative sector, 3 in public sector and 16 in private sector. The total crushing capacity of all these factories for 1998-99 is 99,550 tonnes per day. The crushing capacity of the co-operative and public sector sugar mills alone is 44,150 tonnes per day.

PHYSICAL PERFORMANCE OF SUGAR MILLS

The sugar industry in Tamil Nadu has achieved a high degree of stability and there has been a steady

The details of power evacuated are as follows :

Sl.No.	Name of the Sugar Mills	Power					
		Generated		Consumed		Exported	
		1998-99	1997-98	1998-99	1997-98	1997-98	1996-97
1.	M.R.K.	6733000	6601360	8981300	8174500	6181200	4410720
2.	Cheyyar	21805914	12336660	11961694	7677890	10029860	4718920
3.	S.Siva	17172814	14010238	14204134	14101508	2968680	--
		45711728	32948258	35147128	29953898	19179740	9129640

NEW PROJECTS

Permission is granted to Kallakurichi CSM to establish 1.0 MW to 1.5 MW cogeneration plant at an estimated cost of Rs.200 lakhs and 5 MW in NPKRR CSM at an estimated cost of Rs.770 lakhs. TNEB has agreed to purchase power generated from their mills.

DISTILLERY PLANTS

In Salem and Amaravathy Co-operative Sugar mills, two distilleries in Co-operative sector have been established., with a capacity of 10 KLPD of ENA and 55 KLPD of Rectified Spirit.

SOUTH INDIA SUGAR RESEARCH FOUNDATION

South India Sugar Research Foundation was established in 1987 by the Government of Tamil Nadu. The Co-operative and Public Sector Sugar Mills in this State and the Tamil Nadu Co-operative Sugar Federation are the members of the Foundation.

TAMIL NADU CO-OPERATIVE SUGAR FEDERATION LIMITED

Tamil Nadu Co-operative Sugar Federation started functioning from 30.5.1962 as an Apex Organisation of the C-operative Sugar Factories. It has a membership of 17 Co-operative and 3 public sector sugar mills. The Federation is now managed by a Special Officer in the rank of Additional Registrar of Co-operative Societies.

MAIN OBJECTS

1. Co-ordinate and facilitate the working of the affiliated factories.
2. To assist in the promotion and organisation of new sugar factories
3. Arrange to finalise rate contract for supply of chemicals, gunny bags, lubricants, fertilizers, pesticides and other requirements of the factories.
4. Arrange for the sale of sugar, by-products, like bagasse and old vehicles of the factories. Due to decontrol of molasses, sale of molasses is also done by Federation.



ACTIVITIES

Bulk purchase and supply of A.Twill gunnies, fertilizers, pesticides, lime, chemicals, lubricants, bearings, welding electrodes and uniform clothes by all the member mills including Pondicherry Co-operative Sugar Mills.

Sale of sugar, spirit, molasses, bagasse, old vehicles and scrap. Member mills offer Technical advice and arrange export of sugar, starting of new mills etc.

MBRL

The Federation is running MBRL at Chengalpattu for production of parasites, virus, bio-fertilizers, brocons for biological control of pests and improving cane production and also conduct R & D work on sugar cane. The lab is recognised by ICSR, Government of India. This is the 1st lab in India isolated Acetobactor, Diazotrophicus a sound nitrogen fixing bacterium. The lab formulated its own bio pesticides viz. Plexin nemento to control pest. ★

Among the various schemes implemented for the welfare of the women by the Director of Social Welfare providing employment to women especially those who are living below poverty line by organising co-operative societies is the main object of the Special Programme of this Department. At present 135 co-operative societies are functioning under the control of Social Welfare Department.

The goods produced by these societies are being supplied to Government sponsored schemes like free supply of uniforms to children studying in Std I to VIII under Nutritious Meal Programme and supply of weaning food and energy food to the children of age from 6 months to 2 years and pregnant and lactating mothers in the ICDS Programme.

Types of societies functioning in the Social Welfare Department (1997-98)

1. Women Tailoring Co-operatives	78
2. Weaning Food Manufacturing Co-operative Societies	26
3. Chalk Crayon Manufacturing Co-operative Societies	5
4. Stationery Manufacturing Co-operative Societies	20
5. Miscellaneous type of Societies	6
Total Co-op. Societies	135

TAILORING CO-OPERATIVE SOCIETIES (SUPPLY OF FREE UNIFORMS)

There are 78 Tailoring Co-operative Societies functioning in the State. Nearly 38,000 women are members in these societies. These societies are engaged in stitching of uniforms for the school going children studying in Std. I to VIII under Nutritious Meal Programme and also for children studying in the schools run by the Directorate of Backward Classes, Most Backward Classes and Adi Dravidar and Tribal Welfare.

Every District has been supplied free of cost with automatic cutting machines and cloth is cut in the cutting centre located in each District. The cut clothes are distributed to Women Development Co-operative Societies for stitching.

Apart from stitching of uniforms these societies are undertaking stitching orders for bags from Co-optex, manure bags from Agricultural Department etc. for providing continuous and gainful employment to these women. During the year these societies have disbursed Rs.463.06 lakhs as wages to the members.

WEANING FOOD CO-OPERATIVE SOCIETIES

Children between the age of 6 months and 3 years and pregnant and lactating mothers are being supplied weaning food to improve

WORKING OF WOMEN CO-OPERATIVE SOCIETIES

the nutrition and health of children and women. 26 weaning food societies are functioning in this Department for production of weaning food. Over 1600 members of these societies also work and earn wages in production of weaning food. During the year 1998-99 about 7724.03 M.Ts. of weaning food was produced and Rs.44.76 lakhs was paid as wages to the members. The scheme of free supply of weaning food to children and women are being implemented with the funds provided by the World Bank, Government of India and Government of Tamil Nadu.

CHALK CRAYON MANUFACTURING WOMEN DEVELOPMENT INDUSTRIAL CO-OPERATIVE SOCIETIES

5 Chalk Crayon Co-operative Societies are functioning under the control of this Department and there are about 132 women members in these societies. During the year 1998-99 Rs.0.05 lakhs has been paid to members as wages.

STATIONERY SOCIETIES

20 Stationery Co-operative Societies are functioning in this Department. These societies have a total membership strength of about 1014. In this 13 societies have been equipped with printing machines,

double ruling machines and envelope making machines at free of cost by Government. During the year 1998-99 the members of the societies have earned Rs.5.12 lakhs as wages.

COIR SOCIETIES

2 Coir Industrial Co-operative Societies for women are functioning in Nallur and Thirunageswaram at Thiruvarur and Thanjavur Districts. There are about 1000 women members

in these societies and a sum of Rs.3.41 lakhs has been paid as wages in these societies.

Coir Board is offering 20% rebate on sales effective by the Nallur Society. It has also sanctioned Rs.2.95 lakhs as subsidy for setting up of a model coir village at Nallur.

There are also 4 other societies engaged in various miscellaneous activities. As their performance need improvement, action is being taken to them.



S.No.	Type of Society	No. of Societies	No.of bene - ficiaries	Disbursement of wages for members (Rs. in lakhs)
1.	Tailoring Co-op. Society	78	37,683	463.06
2.	Weaning Food and Energy Food Society	26	1,652	44.76
3.	Chalk Crayon Society	5	132	0.05
4.	Stationery Co-op.Society	20	1,014	5.12
5.	Other Societies	6	1,132	3.46
Total		135	41,613	516.45

Diabetes is a disorder of the chemical reactions that are necessary for proper utilisation of carbohydrates, fats and protein from diet along with inadequate or lack of insulin.

DIABETES mellitus commonly called diabetes, is a condition that makes many people worry about the quality and longevity of their life. Anyone can get diabetes but almost all of them can lead a full, active life with regular control of their diet and medicines. About 18 million people in India are suspected to have diabetes.

Diabetes is a disorder of the chemical reactions that are necessary for proper utilisation of carbohydrates, fats and protein from the diet along with inadequate or lack of insulin. In other words, diabetes results when the body cannot use some foods because of inadequate production of insulin. Insulin is a hormone produced in the pancreas to regulate the amount of sugar in the blood. Pancreas has small groups of cells called the **Islets of Langerhans**. Inside these islets are specialised cells called beta cells. These beta cells produce insulin.

What is the role of insulin in our body?

All cells in the body need energy in order to function normally. This energy is derived from the

The Sweet Disease


food we eat which is made up of carbohydrates, proteins and fats. After digestion, the carbohydrate, which mainly comes from cereals and starch such as wheat, rice and fruit is converted into glucose, or simple sugar. This glucose is the main source of energy for all the body cells. Excess glucose is stored in the liver and muscles as a compound called glycogen. Glucose enters the cells through receptors, which are proteins on the surface of the cells. All the hormones in the body can act on the target cells only after they attach to the receptors. Thus, the glucose can enter the cells only if the insulin, which is a hormone, attaches itself to the receptors on the cell wall. When the insulin is either inadequate, absent, or abnormal, it is difficult for glucose to enter the cells and provide energy.

In addition, insulin is also involved in storage of glycogen in the liver and muscles. Thus, it is involved in storage of reserve energy. In between meals when the cells need energy, glycogen is converted back into glucose and used by the cells.

Normally, pancreas releases insulin proportional to the amount of food you eat. The beta cells monitor blood glucose level regularly and release the amount of insulin necessary to use the glucose in the blood. In diabetes, the pancreas either does not produce insulin or produces too little or produces defective insulin that cannot be used by the body. Thus, the blood glucose cannot be used effectively by the cells and excess glucose cannot be stored in the liver.

PREDISPOSING FACTORS OF DIABETES

- Obesity
- Hereditary
- Age
- Sex
- Pregnancy
- Viral infection
- Injury to the pancreas
- Stress
- Sedentary life



SYMPTOMS OF DIABETES

- Increased frequency of passing the urine, including at night
- Excessive thirst
- Excessive hunger
- Feeling tired and weak most of the time
- Loss of weight
- Slow healing of cuts and wounds
- Numbness or tingling in the feet
- Skin infections
- Blurred vision
- Dry or itchy skin



What are the symptoms of diabetes?

There are three main symptoms of diabetes. These include (a) increased thirst (b) increased hunger and (c) increased frequency of passing the urine.

- **Frequent passing of the urine and increase thirst:** Kidneys filter about 1,500 litres of blood per day. They excrete some water and waste products as urine and absorb most of the filtered blood including glucose. If the blood has more glucose than what the kidneys can reabsorb, it passes out with the urine. As glucose passes out, it takes a lot of water along it in order to flow easily out. Increased water in the urine increase the frequency of passing urine, which in turn results in increased thirst.
- **Excessive hunger:** When adequate insulin does not attach to the receptors, the cells in the body do not get any energy. They therefore send a message of 'hunger' to the brain. The brain responds to this message by giving you a feeling of excessive hunger. Despite eating more, the glucose derived from the food cannot be used for energy as it passes out in urine.

Lack of energy in the cells results in general weakness and tiredness. Also, in the absence of insulin, the cells cannot derive any energy. Energy is therefore derived from the fat and muscles. When energy is derived from fats and muscles, you will lose weight, even if you eat enough to satisfy your hunger.

- **Skin problems:** Excess blood sugar suppresses the body's natural defence mechanism. This is why cuts and wounds heal very slowly. Also,

sugar is a very good food for the bacteria to grow. Thus, skin infections are more common in diabetes. The skin, especially around genitals may be itchy.

What are the types of diabetes?

There are two main types of diabetes:

- **Type I or insulin dependent diabetes.** About ten percent people with diabetes have Type I diabetes. Their bodies do not produce any insulin and therefore regular insulin injections are necessary to maintain normal blood sugar.
- **Type II or non-insulin dependent diabetes:** About 85 percent diabetes have Type II diabetes. Their bodies produce some insulin but it is either inadequate or is defective.

Malnutrition related diabetes: Diabetes among young people with severe malnutrition and starvation is called malnutrition-related diabetes. Although this condition leads to high blood sugar, some of the complications associated with other types of diabetes are absent, Insulin is necessary to control diabetes.

Gestational Diabetes: Some women have high blood sugar during pregnancy. Diabetes during pregnancy is called gestational diabetes.

What are the predisposing factors of diabetes?

Predisposing factors are those that increase the risk of your getting a particular disease. There are many conditions that increase the risk of diabetes.

- **Hereditary:** Blood relatives of people with diabetes are more likely to develop diabetes than those who do not have it in their family. The risk depends upon the number of family members who have diabetes. Higher the number of relatives with diabetes, greater is the risk. There is five percent risk of your developing diabetes if your parents or siblings have diabetes. This risk may increase to fifty percent if you are over weight.

- **Obesity:** Almost 80 percent people who develop diabetes later in life are overweight. Excess weight increases the body's demand for insulin. Obese adults have larger fat cells in their bodies. It is believed that large fat cells do not respond well to insulin. Symptoms of diabetes may disappear with loss of weight.
- **Age:** The risk of diabetes increases with age, especially after 40 years, mainly because the number of beta cells in the pancreas that produce insulin decrease as age advances.
- **Sex:** Both men and women have the same risk of developing diabetes till early adulthood. After 30 years, women are at higher risk as compared to men. Women who develop diabetes during pregnancy are at higher risk of developing Type II diabetes later in life.
- **Viral infections:** Some viral infections may destroy the beta cells in the pancreas and therefore cause diabetes.
- **Injury:** An accident or injury that damages the pancreas may also destroy the beta cells, thus leading to diabetes.
- **Stress:** Some hormones released during stress may block the effect of insulin on the cells, thus causing diabetes.
- **Sedentary life:** Some recent studies have indicated that people with sedentary life-style are more likely to have diabetes as compared to those who lead an active life. It is believed that exercise and physical activity increases the effect of insulin on the cells.

How is diabetes diagnosed?

Diabetes can be diagnosed by blood and urine tests. In case of a routine checkup where you do not have any symptoms, your doctor is likely to suggest random blood sugar test. This means that your blood can be tested at any time of the day irrespective of when you have last eaten. In case diabetes is suspected, fasting blood sugar (after 12 hour fast) and post-prandial blood sugar levels are tested (two hours after food). Diabetes is diagnosed

if random blood sugar level is more than 200mg/100ml of blood and fasting blood sugar is more than 140mg/100ml.

Until some years ago, urine tests were routinely recommended for diagnosis of diabetes. However, it is not recommended anymore because several other health conditions and medicines may give false positive results.

Glucose tolerance test: Occasionally, an oral glucose tolerance test is necessary to confirm diagnosis. This test, which indicates the body's capacity to use glucose, is performed in the morning after an overnight fast. You should have had normal diet for three days before taking the test. In this test, blood for measuring fasting blood sugar level is first taken. Next, you will be given 75 grams glucose. Blood samples are taken half an hour, one hour and two hours after taking glucose. The results of glucose tolerance test are interpreted as normal, impaired glucose tolerance and diabetes. Impaired glucose tolerance test is considered to be a risk factor for future diabetes. It, however, is not included in the diagnosis of diabetes. Glucose tolerance test is not recommended for people who are either on bed rest or are suffering from some diseases, especially infections.

What are the complications of diabetes?

Complications of diabetes can be either acute because of insulin deficiency, which increases blood sugar to very high levels and chronic because of changes in the blood vessels of various parts of the body.

Acute complications include diabetic ketoacidosis and repeated infections.

- **Diabetic ketoacidosis or coma:** When insulin levels are low, the body cannot use glucose for energy and therefore body fats are mobilised from their stores. The breakdown of fats to release energy results in formation of fatty acids. These fatty acids pass through the liver and form a group of chemical compound called ketones. Ketones are excreted in the

urine. Presence of ketones in the urine is called ketonuria.

- Increased level of ketones in the body tissues is called ketosis. Ketosis may increase acidity of the body fluids and tissues to abnormally high levels and cause a condition called acidosis. Acidosis as a result of increased ketones is called ketoacidosis.
- Diabetic ketoacidosis is an emergency condition, and if not treated in time, can cause death. Appropriate dose of insulin and intravenous fluids can reverse diabetic ketoacidosis. In case you have symptoms suggestive of ketoacidosis, you can take the following measures until you reach the hospital.
- Increase regular insulin dose by at least 20 percent
- Drink as much fluids as possible; and
- Get urine tested for ketones and blood for glucose levels every four to six hours.
- **Infections:** People with diabetes are more likely to have infections because of three main reasons : (a) bacteria grow very well if blood glucose levels are high; (b) natural defense mechanism of people with diabetes is low and (c) associated complications of diabetes increase the risk of infections.

Common infections among people with diabetes include skin infections, urinary tract infections,

diseases of the gums, tuberculosis and some fungal infections.

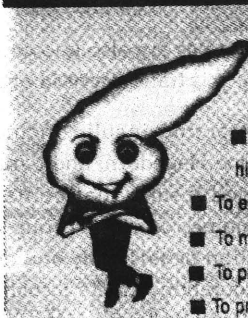
Chronic complication are more common if normal blood sugar levels are not maintained regularly. People with diabetes are more likely to have diseases of the heart, blood vessels, kidneys, eyes and the nerves.

- **Diseases of the heart and the blood vessels:** Atherosclerosis is a condition in which there is (a) hardening of the arteries and (b) narrowing of the arteries due to deposits of fat in its inner lining. It is a slowly progressive disease. It however develops faster in people with diabetes. This is why diabetics are twice more likely to have heart attack or angina as compared to non-diabetics. They are also at higher risk of developing high blood pressure.

Hardening of the arteries of the legs can affect the leg muscles because of reduced blood supply. This may result in cramps, discomfort or weakness while walking. If the blood supply to the leg is greatly reduced or cut off a long time, there may be death of the tissues. If this happens, the affected part may have to be cut off to save life.

- **Damage to the kidneys:** Diabetes can affect small blood vessels of the kidneys. As a result, the efficiency of the kidneys to filter waste products is adversely affected. Adverse kidney functions result in excretion of a protein called "albumin" in the urine. Damage to the kidneys

AIMS OF TREATMENT OF DIABETES



- To achieve best blood sugar level that is appropriate for you
- To provide relief from symptoms of diabetes
- To balance diet, exercise and medicines or insulin
- To reduce risk factors associated with complications such as obesity, smoking, high cholesterol and high blood pressure
- To ensure normal growth among children and young adults who have diabetes
- To maintain normal body weight
- To prevent acute complications such as ketoacidosis and infections
- To prevent, if possible, or else detect at the earliest and manage chronic complications

may continue to deteriorate, especially if blood sugar levels are not under control. Kidney damage due to diabetes is more common in Type I diabetes as compared to Type II diabetes.

- **Damage to the eyes:** People with diabetes are more likely to have partial or complete loss of vision as compared to those without diabetes.
- **Damage to the nerves:** Almost seventy percent people with diabetes have varying degrees of nerve damage. Damage to the nerves is called neuropathy. Neuropathy as a result of diabetes is called diabetic neuropathy.

High blood sugar destroys nerve fibres and a layer of fat around the nerves. Damaged nerves cannot pass the signals to and from the brain properly. As a result, you may either have loss of sensation, increased sensation or pain in the affected parts. Damage to the nerves on the periphery of the body is more common than in other parts of the body. The damage normally starts from the toes, and progresses to feet and legs. This can lead to numbness, tingling sensation, burning, dull pain, stabbing pain or cramps. The skin may become so sensitive that even pressure from the shoes and clothes may not be tolerated.

How can complications of diabetes be prevented?

You can prevent complications of diabetes through the following seven measures:

- Always maintain good control over blood sugar levels.
- Maintain normal blood pressure. If you have high blood pressure, take medicines prescribed by your doctor regularly.
- If you are obese, reduce your weight through proper diet control and regular exercise.
- Reduce intake of fats and cholesterol in your diet.
- Develop a routine of regular exercise after consulting with your doctor.

- Do not smoke
- Get regular general check-up done in order to detect complications of diabetes, if any, at the earliest.

What is the treatment for diabetes?

Diabetes cannot be cured but can be controlled through several ways. These mainly include insulin, medicines, diet control and exercise. Management options for diabetes depend upon the type of diabetes and its severity.

What is the treatment for Type I diabetes?

A regimen of insulin injections, diet and exercise are recommended for management of Type I diabetes. Insulin can only be given as an injection. This is because insulin is a protein and if taken orally, it is broken down during digestion and destroyed.

What are the types of insulin?

There are several types of insulin. All these types differ in three major characteristics: (a) when it begins its action on the body cells after injection, (b) when it reaches the peak activity and (c) the duration for which its action lasts. Based on these criteria, insulin injections can be grouped as short acting, intermediate acting or long acting.

The peak action of short acting insulin is about one to three hours and the action lasts for four to eight hours. Intermediate acting insulin reaches peak action within four to six hours and its action lasts for eight to twelve hours. Long acting human insulin reaches peak within four to eight hours and its action lasts for eight to 14 hours.

Short acting insulins are also known as soluble or regular insulin. It is transparent in appearance.

Intermediate acting insulin includes NPH (Neutral Protamine Hagedorn) and Lente insulin. NPH is a modified insulin that contains small amount of protamine, one of a group of simple proteins. Its action begins early and effect lasts for intermediate duration. Lente insulin, which is made from ultralente and semi-lente insulin, has

COMPLICATIONS OF DIABETES

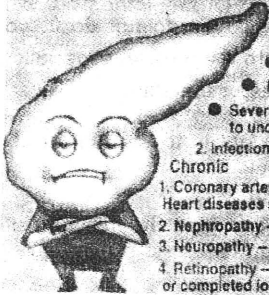
Acute:

1. Ketoacidosis. Symptoms include:
 - Dehydration as indicated by dryness in the mouth and loss of elasticity of the skin
 - Fruity smell of breath
 - Nausea, vomiting and pain in the abdomen
 - Deep breathing
 - Increased rate of breathing
 - Severe weakness, drowsiness that can lead to unconsciousness or coma

2. Infections

Chronic

1. Coronary artery disease – blood vessels of the heart affected. Heart diseases such as heart attack and angina may occur.
2. Nephropathy – kidney functions affected.
3. Neuropathy – nerves in various parts of the body affected.
4. Retinopathy – Retina of the eyes mainly affected. Partial or completed loss of vision may occur



- Diabetes among people who are under-weight and malnourished
- Tendency to develop ketoacidosis among diabetics
- In emergencies such as surgery, pregnancy, high fever, or diabetic coma.
- If other methods of blood sugar level such as medicines, diet and exercise have not been effective.

What are the insulin injection regimens?

Long acting insulin include protamine zinc insulin and ultralente. They have prolonged duration of action. These insulins are not commonly used for treatment of diabetes.

In recent times, pre-mixed insulins are available and are preferred. These contain short and intermediate acting insulins. Pre-mixed insulins avoid the likely risk of manually mixing incorrect doses of more than one type of insulin. They are however recommended only if blood sugar levels are under good control. Earlier, insulin was extracted from the pancreas of some animals. In recent times, however, biosynthetic insulin is also available that is similar to human insulin. Although human insulin is expensive, it is preferred because it greatly reduces the risk of complications such as insulin resistance.

Human insulin is prepared by copying and putting the human gene (the basic unit of genetic material) that codes for insulin protein inside a bacteria. Several techniques are employed on this gene to make the bacteria want to use it so that insulin is made by it regularly. The insulin from the bacteria is then converted into human insulin through sophisticated techniques. Human insulin is also prepared by using yeast cells instead of bacteria.

When is insulin recommended for control of diabetes?

Insulin is recommended for five main conditions:

- Diabetes among children

Several insulin regimens are used to treat different people with insulin dependent diabetes. Your doctor will choose the regimen most suited to you based on (a) your blood sugar levels, (b) desired degree of diabetic control, (c) extent to which the insulin produced by the pancreas can fill the gap left by the insulin injections, (d) your lifestyle and (e) ability to adjust to insulin injections.

Once-daily injections, even if it is mixture of short and delayed action insulins cannot achieve desired insulin levels throughout the day among those who have little or no insulin being produced by the body. Twice daily mixed insulins is the simplest and most commonly used regimen. It aims to provide (a) back-ground and mid-day meal insulin requirement with an intermediate action insulin and (b) cover the two main meals of the day with short-acting insulin. Both insulins are injected before breakfast and evening meal.

Normally, about two-thirds of total daily insulin requirement is given in the morning and remaining one-third in the evening. The ratio of short and intermediate acting insulin normally differs in the morning and evening. Your doctor will recommend the desired ratio and dose based on the results of blood sugar measurements. If insulin regimen is not well regulated, blood sugar levels may fall

below normal, especially between meals and early in the morning.

INSULIN DEFICIENCY

Obesity, hereditary, age, sex, pregnancy, viral infections, injury to the pancreas, stress and sedentary life can lead to diabetes. Diabetes mellitus is caused by lack or inadequate insulin.

What is the correct method of taking insulin injection?

Your doctor is the best person to advise you on the correct method of taking insulin injections. The information included here may be used as a guideline or reference.

If you use one type of insulin:

- Wash your hands. Turn the insulin bottle on its side and roll it between your palms to mix it. Do not shake the bottle.
- Wipe the top of the insulin bottle clean.
- Pull the plunger of the injection syringe to draw in air equal to your insulin dose in units.
- Push the needle through the top of the bottle and inject air into the bottle.
- With the needle in the bottle, turn it upside down and pull the plunger to fill the syringe just beyond the marking of your dose of insulin.
- Carefully and slowly, push the plunger till the marking line of the correct dose of your insulin.
- Check for air bubbles. If they are present, gently tap the injection syringe so that the bubbles rise to the top. Repeat steps 5 and 6 above and check for bubbles again. Continue these two steps till there are no air bubbles in the injection syringe.
- Remove the needle from the bottle.
- Wipe the area where you want to take insulin injection clean. Some people prefer to clean

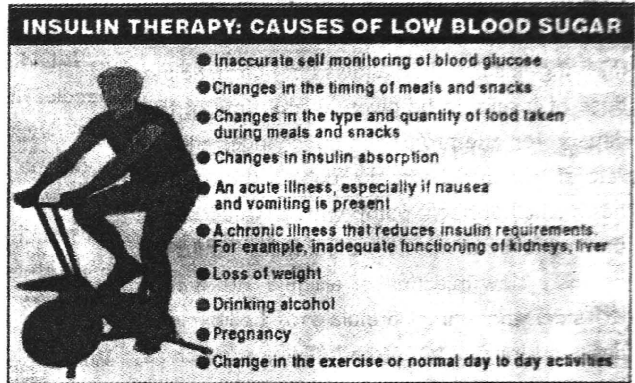
the injection site with a cotton swab dipped in alcohol. This is not always essential.

- Hold a large pinch of skin between your thumb and fingers. If you do not do it, you may inject insulin into the muscle, especially if there is little fat below the skin.
- Push the needle straight in to the skin or at a slight angle.
- Pull out the needle and wipe the injection site clean.

If you use more than one type of insulin:

- Wash your hands and wipe the tops of both the insulin bottles clean.
- Turn the bottle containing intermediate or longer-acting insulin such as NPH or Lente insulin upside down and roll between your hands to mix it. Do not shake it.
- Pull plunger of the syringe to draw in air equal to your dose of NPH or Lente insulin.
- Push the needle through the top of the NPH or Lente insulin bottle and inject the air into the bottle.
- Remove the empty syringe and needle from the bottle.
- Pull the plunger to draw in air equal to the dose of your regular or plain insulin. Push the needle through the top of the regular insulin bottle and inject air into the bottle.
- With the needle in the bottle, turn it upside down and pull the plunger to fill the syringe just beyond the mark of your dose or regulate insulin. Push the plunger slowly up to the line of your correct dose of regular insulin.
- Check for air bubbles. If they are present, gently tap the syringe so that they come to the top of the syringe. Repeat steps 7 and 8 and check for bubbles again. Repeat these steps till there are no bubbles.

- Remove the needle from the bottle with regular insulin and push it through the top of the bottle containing NPH or Lente insulin.
- Carefully pull the plunger back till the mark of your total dose of insulin.
- Inject the dose of insulin as detailed in steps 9-12 for taking one type of insulin.



Where is insulin injection taken?

Suitable sites for insulin injection include lower abdomen, upper outer arm, upper outer thighs, and buttocks. Avoid injecting insulin near joints or bony areas. Injection sites are normally rotated to avoid formation of 'lumps'.

It is important that you learn to inject insulin yourself rather than depend on others in order to become more self-reliant. It will also allow flexibility in your normal day to day activities and routine.

What are the devices to inject insulin?

Devices for giving insulin include:

- **Insulin syringes:** These are special injection syringes that are available in several sizes, such as 30 units, 50 units and 100 units. It is important to remember that you should use the size of the syringe that corresponds to your insulin dose. For example, if your dose is 40 units and you use a 50 units size of syringe, you will not be able to measure 40 units exactly. Avoid buying bulk disposal insulin syringes, either from India or from abroad as they may not be suited for the changes made in the insulin dose after you have bought the syringes.

- **Insulin pens:** This device minimizes the inconvenience of injections and may also improve the accuracy of insulin delivery. It holds a pre-filled cartridge of the desired type of insulin and has a disposable needle that can be changed for each injection. In some pens, you need to give the correct dose by pressing the plunger repeatedly after the needle is pushed into the injection site. Each time you press the plunger, a fixed dose of insulin is injected. In some other types of pen, you need to dial the correct dose of insulin before the injection. This withdraws the plunger with the part that has insulin. After you have inserted the needle in the injection site, you need to push the plunger to deliver the dose you had adjusted in the pen.

If the needle is left on the pen between injections, air may enter the part of the pen that contains the insulin. This can slow the delivery of the dose and so cause wastage of insulin after the needle is withdrawn. It is therefore important that you learn the correct technique of using the pens from your doctor.

- **Jet injectors:** These devices are designed to eject insulin as a spray of small drops under such high pressure that these small drops enter the skin. These devices are not very popular because the absorption of insulin into the body may not always be uniform. They may also cause bruises at the site of giving insulin.

● **External insulin pump therapy:** A portable insulin pump is an alternative method of injecting insulin that allows an intermediate dose of insulin to be given at any time of the day or for pre-programming changes in the rate of insulin delivery throughout the day. It has a small portable pump with an infusion set that ends in a needle or cannula. Infusion means a slow injection of a liquid into a vein or under the skin. Cannula is a hollow tube designed for putting into a body cavity such as blood vessel. The needle or cannula is put below the skin and changed once in twenty-four to seventy two hours.

To take full advantage of external insulin pump therapy, you need to do self monitoring of blood sugar level several times a day and then make adjustments on the insulin dose as recommended by your doctor.

The main advantages of external insulin pump therapy is improved flexibility in matching insulin with variations in your schedule. It also helps to make necessary changes in the rate of insulin delivery at all times, especially in between meals. The main disadvantage of external insulin pump is the possibility of infections at the site of infusion. It has a higher risk of developing ketoacidosis because of interruption in insulin flow.

● **Implanted insulin pump therapy:** In this option, small pumps that can be controlled from outside are put inside the abdomen. Insulin is released into the space around the organs of digestive system inside the abdomen. The insulin thus released is absorbed directly into the various organs. This method seems to reduce the risk of low blood sugar while trying to maintain normal blood sugar levels throughout the day. More research is needed before this technique can be recommended for control of diabetes.

Disposal of insulin syringes and needles:

It is desirable that you collect old syringes and needles in special containers for sharp objects. Whenever you visit a major hospital, request someone handling wastes to dispose your syringes and needles along with those of the hospital. Improper disposal of needles and syringes can be dangerous for those handling them in the municipal bins.

What are the complications of insulin injections?

There are four main complications of insulin injections. These include (a) low blood sugar, (b) insulin allergy and resistance, (c) local reactions at injection site and (d) swelling of the body.

● **Low blood sugar:** This is the most common complication of insulin injections: Until you achieve good control over blood sugar levels, you may have two to three mild to moderate insulin reactions. Insulin reaction is a condition where the normal blood sugar level falls below normal.

The normal blood sugar level is between 60-120 mg/100 ml. You may have insulin reaction in any of the following three conditions:

- The blood sugar level falls below 60mg/100 ml.
- Blood sugar falls rapidly from high level to low level; or
- Blood sugar falls below your normal level.

An insulin reaction is the body's response to low blood sugar. Whenever there is low blood sugar, the brain releases some hormones that cause paleness, sweating, increased heart beat, irritability, etc. These hormones also release sugar stored in the liver as glycogen. Released glycogen increase blood sugar levels.

- **Treatment:** Whenever you have the symptoms of insulin reaction, do not wait to see if they go away on their own. Eat some sugar or candies immediately. It is desirable that you keep sugar with you all the time. You should also stop all activities and sit or lie down in order to reduce the body's demand for energy and therefore sugar.

In case the symptoms persist for more than ten or fifteen minutes, have some sugar again. Avoid eating continuously till the symptoms disappear or eating whatever food is available as it will prevent blood sugar levels from stabilizing.

- **Prevention:** You can prevent insulin reaction by eating meals at fixed time everyday, avoiding sudden changes in diet, exercise or insulin dose and eating a light snack before doing exercises. It is important to carry a diabetic card with information about your diabetes condition so that others around can help you seek immediate medical help.

Sometimes, high blood sugar, and ketoacidosis may occur after taking excessive insulin.

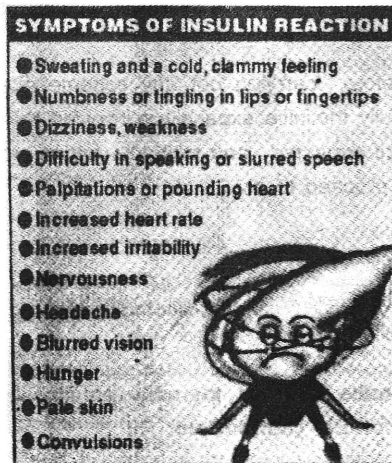
This type of rebound high blood sugar is called Somyogi phenomenon. It occurs due to release of some chemical compounds in the body as a result of low blood sugar. Somyogi phenomenon may be responsible for worsens of diabetes.

- **Formation of lumps:** Sometimes, a firm round lump may form at the site of repeated insulin injection. The absorption of insulin from these lumps may not be complete. This complication is not commonly observed in those who take human insulin injections because they are more than ninety-eight per cent pure.
- **Insulin allergy and resistance:** Insulin allergy is also not a common complication in those who use purified insulins, especially human insulins. Allergic reaction to insulin injection may be either at the site of injection or all over the body. Local reactions result in hardness, itching, red discolouration or pain at the injection site. The symptoms normally appear after thirty minutes to four hours after taking

insulin and are first observed within the first week or month after starting insulin treatment. Insulin allergy disappears after some time.

Insulin resistance is a condition in which antibodies are formed in the body in response to insulin injections. Antibodies are special kinds of blood protein that are produced in response to a foreign or disease causing agent.

The most common cause of insulin resistance is obesity. It may also be due to periodic stress and illness. Insulin resistance in people who are



not over-weight may be due to antibodies to insulin, abnormalities in the insulin receptors, increased local destruction of insulin or secretion of abnormal insulin.

Insulin resistance is a condition in which the more than two hundred units of insulin are required to control blood sugar for several days.

This demand should not be because of ketoacidosis, infection or some associated diseases of the endocrine glands that produce hormones one or more hormones and secrete them directly in the blood stream.

- **Swelling:** Insulin may rarely cause swelling of the body.

Courtesy : The Science Express

★ ★ ★



THIRUKKURAL

The Code of Conduct for the mankind

அழிவதூஉம் ஆவதூஉம் ஆகி, வழிபயக்கும்
ஊதியமும், சூழ்ந்து செயல்

**Azhivadhuum avadhuum aahi vazhibayakum
oodhiyamum Suzhndhu seyal**

Before carrying out any scheme examine it carefully, the initial expenditure involved, the general benefit expected and probable future profit, and then proceed to act.

★ ★ ★

தெரிந்த இனத்தோடு தேர்ந்து, எண்ணிச்செய்வார்க்கு,
அரும்பொருள் யாதொன்றும் இல்

**Therindha inathodu therndhu, ennichevarkku
Arumporul yadhondrum ill**

For a king who before acting consults his chosen counsellors and then himself carefully examines the scheme, there is nothing impossible to achieve.

★ ★ ★

ஆக்கம் கருதி, முதல்இழக்கும் செய்வினை,
ஊக்கார் அறிவுடை யார்

**Aakam karudhi mudhalizhakum cheivnai
ookar arivudai yar**

The person in greed expecting enormous profit and hastily launching his scheme without due deliberation, will lose even his initial capital. The wise abstain from such a rash affair.

★ ★ ★

தெளிவு இலதனைத் தொடங்கார் இளிவுஎன்றும்
ஏதப்பாடு அஞ்சு பவர்

**Thelivu iladhanai thodangaar illivuennum
Edhapaadu anju bavar**

A person, who naturally fears failure that may bring on reproach, will never begin a work whose future is not quite clear despite due deliberation.

★ ★ ★

வகையறச் சூழாது எழுதல், பகைவரைப்
பாத்திப் படுப்பதுஊர் ஆறு

**Vahaiyara suzhadhu ezhudhal pahaivarai
Paathi padupadhor aaru.**

Without carefully examining all aspects of the course of action he is to pursue, if a king hastily marches against his foe, it is but a sure way of planting the foe firm in the ground where he will grow in strength. Taken by surprise, the rash king finds his foe gain a position of vantage.

★ ★ ★

செய்தக்க அல்ல செயக்கெடும், செய்தக்க
செய்யாமை யானும் கெடும்

**Seidhaka alla seyakedum, seidhaka
seiyaamai yaanum kedum**

If a king begins anything which ought not to be done, it will end in ruin. Things which he ought to do, if he leaves undone will equally bring ruin.

★ ★ ★

எண்ணித் துணிக் கருமம், துணிந்தபின்
எண்ணுவம் என்பது இழுக்கு

**Enni thuniha karumam, thunindhabin
ennuvam enbadhu izhuku**

Think first and then make bold to begin the work. If you say, "Let me start the work. Later on I can think about it", surely you shall court disgrace.

★ ★ ★

ஆற்றின் வருந்தா வருத்தம் பலநின்று
போற்றினும், பொத்துப் படும்

**Aatrin varundhaa varutham palarnindru
Potrin pothu padum**

If a person, without carefully examining the correct method as to the efficient means to be adopted, toils and strives to achieve it with a number of men who help him, even then that work will end in frustration.

★ ★ ★

நன்றுஆற்றல் உள்ளும் தவறுஉண்டு; அவர்அவர்
பண்டிஅறிந்து ஆற்றாக் கடை

**Nandruaatral ullum thavarundu avaravar
panbarindhu aatrak kadai**

Even when a proper method is adopted in achieving a thing, a mistake may occur if you do not take into consideration the character of the foe.

★ ★ ★

என்னாத எண்ணிச் செயல்வேண்டும்; தம்மொடு
கொன்னாத கொள்ளாது உலகு

**Elladha enni seyavendum; thammodu
kolladha kollaadhu ulahu**

A king must carefully examine and begin only such work that will not be ridiculed by the public. The

people will never approve of a course of conduct which would be unbecoming and inconsistent with his dignity.

★ ★ ★

வினைவலியும் தன்வலியும் மாற்றான் வலியும்
துணைவலியும் தூக்கிச் செயல்

**vinaivaliyum thanvaliyum matran valiyum
thunaivaliyum thooki seyala**

The power that may be required to achieve his plan, his own power, the power of the enemy and the power of his allies, he should weigh carefully all these before he goes to war. Without having a clear comparative knowledge of the forces on his side and the forces against him he should not hastily declare war.

★ ★ ★

ஒல்வது அறிவதுஅறிந்து அதன் கண்மங்கிச்
செல்வார்க்குச் செல்லாதது இல்

**olvadhu arivadhuarindhu adhan kanthangich
selvarku selladadhu ill**

'With a clear knowledge of the object aimed at and of adequate means to achieve the same, if a person decides to act, there is nothing impossible for him to achieve'.

★ ★ ★

உடைத்தம் வலிஅறியார், ஊக்கத்தின் ஊக்கி
இடைக்கண் முரிந்தார் பலர்

**udaitham valiyariyar, vookathin ooki
idaikan murindhar palar**

'Many a king was routed in the middle of the operations because he hastily went to war without a clear and comparative knowledge of his own strength'.

★ ★ ★

TNSC BANK - 93 YEARS OF USEFUL SERVICE

The Tamil Nadu State Apex Co-operative Bank Ltd., was started in November 1905 and has completed 93 years of useful service to the co-operatives in Tamil Nadu. The Bank has been playing a vital and significant role in the dispensation of agricultural credit, both short term and medium term and has contributed in a big way to the "Green Revolution" in the State. It has also contributed to a greater extent to the progress of the co-operative sugar Mills and Spinning Mills by providing working capital refinance. The role of the Apex Bank in the service of the Primary Weavers Co-operative Societies and Co-optex is significant. Similarly, the Apex Bank has been playing a major role by providing refinance facility for the successful running of the Public Distribution System in the State.

SHARE CAPITAL

The Authorised share capital of the bank is Rs.50 crores. The Share Capital of the Bank on 31.8.99 is Rs.24.15 crores as against Rs.18.74 crores as on 31.8.98. The Government of Tamil Nadu have contributed a sum of Rs. 1.26 crores in the share capital of the Bank.

RESERVE FUND AND OTHER RESERVES

The Reserve Fund of the Bank as on 31.8.99 amounted to Rs.85.77 crores as against Rs.80.62 crores as on 31.8.98. The amount available in the Agricultural Credit (Stabilisation) Fund was Rs.52.31 crores as against Rs.48.53 crores as on 31.8.98 and other reserves amounted to Rs.38.70 crores. Reserve fund and other reserves amounted to Rs.178.78 crores.

DEPOSITS

The deposits of the bank as on 31.8.99 stood at Rs.2279.90 crores as detailed below :

1. Individual and Institution Rs. 409.60 (17.97%)
2. Co-operatives Rs.1870.30 (82.03%)

as against Rs.1942.18 crores as on 31.8.98. The increase in deposits amounted to Rs.337.72 crores registering a growth of 17.39%.

BORROWINGS

The borrowings of the Apex Bank stood at Rs.416.19 crores as on 31.8.99

A major portion of the borrowings was raised from the NABARD. It has sanctioned:

- i. a limit of Rs.273.65 crores on behalf of the DCCBs under ST SAO for the year 1999-2000 and our borrowings as on 31.8.99 is Rs.24.10 crores.
- ii. our borrowings from NABARD under medium term conversion loans sanctioned to CCBs amounted to Rs.12.91 crores as on 31.8.99
- iii. a limit of Rs.351.62 crores for the year 1999-2000 for financing Primary Weavers Co-operative Societies (PWCs) through DCCBs and borrowings as on 31.08.99 is Rs.141.50 crores.
- iv. a limit of Rs.149 crores to the Apex Bank on behalf of the CO-OPTEX for the year 1999-2000 for procurement of handloom and powerloom cloth and trading in yarn. The borrowings as on 31.8.99 is Rs.94.50 crores.

The NABARD is also providing necessary guidelines and assistance to the SCB/CCBs in formulating various schemes in addition to providing financial assistance for implementation of various programmes like non-farm sector/IRDP/MAP/Bio-gas Development Programme etc.

i. The borrowings from the NABARD under the schematic lending amounted to Rs.105.84 crores as on 31.8.99

ii. The borrowings from NABARD for financing non farm sector activities amounted to Rs.10.91 crores as on 31.8.99

The National Co-operative Development Corporation (NCDC) has come forward with a scheme to improve the storage capacity in Tamil Nadu under World Bank Storage Project III Assistance. The Apex Bank has been identified as an implementing agency. The TANFED, CO-OPTEx, SAGOSERVE, INCOSERVE, various co-operative spinning/sugar mills besides 134 PACBs were very much benefited by the assistance. The borrowings from NCDC as on 31.8.99 was Rs.5.56 crores.

The Apex bank is availing refinance for construction of hospitals, hotels, nursing homes etc. from the Small Industries Development Bank of India (SIDBI). The advances made to the Small Road Transport Operators through the CCBs and Urban banks are also refinanced by the SIDBI. For the year 1998-99 SIDBI has sanctioned a limit of Rs.5 crores and the outstanding borrowings as on 31.8.99 was Rs.7.89 crores which includes the amount of borrowings relating to previous years also.

INVESTMENTS

The Bank's investments in Government Promissory Notes (both Central and State), Debentures of the State Land Development Bank, bonds of the TNEB and other Trustee Securities, shares etc. aggregated to Rs.787.87 crores as on 31.8.99 as against Rs.500.09 crores as on 31.8.98.

ADVANCES

The total advances of the Bank stood at Rs.1172.52 crores as on 31.8.99 as against Rs.1329.43 crores as on 31.8.98.

In addition to routing the funds provided by NABARD for financing seasonal agricultural operations, medium-term agricultural loans, medium-term conversion loans and weavers finance, the bank has been advancing for various non-agricultural purposes from its resources to the DCCBs. Apex Co-operatives etc.

a) The Apex Bank has sanctioned limits aggregating Rs.674.26 crores to CCBs for various Non-Agricultural purposes such as Jewel loans, Employees Societies, Spinning Mills, Sugar Mills, Wholesale Stores, Public Distribution System etc. The DCCBs have availed Rs.210.67 crores at the end of August 1999. The purpose-wise limits sanctioned and the outstanding as on 31.8.99 are furnished below:

(Rs. in crores)

	purpose	Limit	Outstanding
1.	Employees Societies	111.20	30.50
2.	Public Distribution System	32.37	16.51
3.	Non -PDS	20.30	8.86
4.	Jewel loans through PACBs	366.70	135.40
5.	Jewel loans through branches of CCBs	118.25	10.10
6.	Jewel loans through CUBs	5.20	0.50
7.	Spinning Mills	--	--
8.	Sugar Mills	20.24	8.80
	Total	674.26	210.67



b) The Bank has sanctioned a cash credit limit of Rs.2.50 crores to TANSI under consortium basis where Canara Bank is the leader and the outstanding as on 31.8.99 is Rs.2.23 crores. The Apex Bank has retained a sum of Rs.5 crores under Food Credit Consortium with State Bank of India, Mumbai, which is the leader of the consortium. The Apex Bank has sanctioned Term loan of Rs.20 crores to Kallakurichi Co-operative Sugar Mills Unit II. The Bank has sanctioned a cash credit limit of Rs.4.60 crores to Arignar Anna Sugar Mills under Consortium basis where IOB is the leader.

c) The Bank has been providing direct term finance to Spinning/Sugar mills in the State. It has also been providing project finance pending disbursement of loans by IDBI/IFCI/ICICI. The Bank has been accepting usance bills by the Spinning/Sugar mills for purchase of machinery under deferred payment terms.

d) The Bank has sanctioned cash credit limits directly to the following Apex Co-operative Institutions for the year 1999 and the limits sanctioned and the outstanding as on 31.8.99 are indicated against each:

Sl. No.	Name of the Institution	Limit sanctioned	Out standing Rs. in crores
1.	T.N.Co-op.State Land Dev. Bank	1.00	NIL
2.	T.N.Co-op. Marketing Federation	10.00	NIL
3.	T.N.Consumers Co-op. Federation	1.00	0.60
4.	T.N.Industrial Co-op. Bank	--	--
5.	T.N.Co-op. Housing Federation	--	--

e) The Bank has sanctioned a term Loan of Rs.75 crores to the Tamil Nadu Co-operative Housing Federation as on 31.8.99

WORKING CAPITAL

The Working capital of the Bank increased to Rs.2997.40 crores as on 31.8.99 as against Rs.2570.22 crores as on 31.8.98.

AGRICULTURAL AND RURAL DEBT RELIEF SCHEME 1990

The Apex Bank submitted a claim for Rs.211.21 crores under the scheme on behalf of the DCCBs in the State to NABARD. Out of which the NABARD has released Rs.203.18 crores to the Apex Bank.

NON-RESIDENT INDIAN ACCOUNTS

With a view to mobilising deposits from the Non Resident Indians and to extend the Banking facilities the Bank had obtained licence from the RBI to introduce Non-Resident (Ordinary) A/c and Non-Resident (External) A/c. This scheme has been introduced in 7 select branches in the first phase.

AFFILIATES DEVELOPMENT PROGRAMME

- The Bank is providing 50% subsidy to PACBs selected in Intensive Development Programme for putting up of modern banking counters and provision of furniture and fittings. The total subsidy provided by the Bank amounted to Rs.42.74 lakhs benefiting 787 PACBs upto 31.8.99.
- The Apex Bank has supplied vehicles to all CCBs to enable them to make use of the same for effective collections at a cost of Rs.428.23 lakhs.
- The Apex Bank has supplied 150 jewel safes to 150 PACBs to enable them to diversify their activities at a cost of Rs.60 lakhs.
- The Apex Bank has provided Computers & Printers, air conditioners, UPS etc. to all the DCCBs to computerise their operations at a total cost of Rs.32 lakhs.
- The Apex Bank has supplied Electronic photo copier to all the CCBs at a total cost of Rs.20.07 lakhs.
- The Apex Bank is paying the premium towards the corpus fund for the deposits mobilised by the PACBs from the year 1991-92. The total premium paid by the Apex Bank upto 31.8.99 aggregated to Rs.71.67 lakhs.

CREATION OF PRIMARY CO-OPERATIVES DEVELOPMENT FUND

In order to strengthen the Primary Co-operatives in the State, "Primary Co-operatives Development Fund" has been created at the Apex Bank level. The Apex Bank and DCCBs are to contribute 5% of their net profit from the year 1990-91. The balance as on 31.8.99 amounted to Rs.908.18 lakhs.

BRANCHES

The Bank is catering to the needs of the public in Chennai through its network of 40 Branches situated in an around the city.

PROFIT

The Bank earned a net profit of Rs.3.17 crores for the year 1998-99 as against Rs.15.07 crores for 1997-98.

DIVIDEND

The Bank has paid a dividend of 15% for the year 1996-97.

DEVELOPMENT ACTION PLAN

As desired by the Government of India/NABARD, the Apex Bank requested all the DCCBs to prepare Development Action Plans for a period of five years, i.e., from 1994-95 to 1998-99. Accordingly, the DCCBs have prepared Development Action Plans for themselves and for all PACBs functioning in their area of operation. Based on the above, the Apex Bank has prepared a State Action Plan.

The Apex Bank and the State Government have signed Memorandum of Understanding (Mou) with NABARD assuring successful implementation of the Development Action Plan in the State. District Level Monitoring and Review Committees have been constituted to review the progress made by the DCCBs and the PACBs under DAP. A State Level Monitoring Committee has also been constituted by the State Government under the Chairmanship of the Secretary to Government, Co-operation, Food and Consumer Protection Department, Government of Tamil Nadu. The above Committee meets once in a quarter to review the progress made in the implementation of various covenants of the Mou as well as the progress made under DAP by the Apex Bank, DCCBs and the PACBs.

★ ★ ★

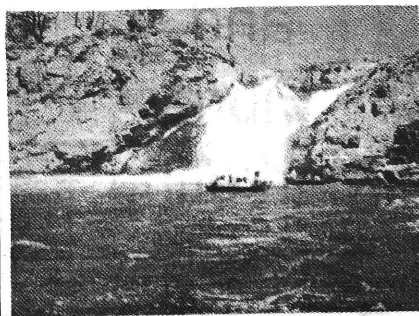
TTDC 'Gold Card Scheme'

The Tamil Nadu Tourism Development Corporation (TTDC) introduces a 'gold card scheme' for the benefit of tourists from January 1, 2000 coinciding with the millennium year celebrations.

The gold card will enable the tourists to avail themselves of 20 percent discount in accommodation charges at all the TTDC Hotels except those in Hill Stations where a rebate of 10 percent will be allowed during off-season.

Concessions in boat hire charges and catering will also be extended to the card holders.

The cards can be bought on payment of Rs.1000 from the TTDC Head Office at Chennai or at any of its Hotels.



The Tamil Nadu State Palmgur and Fibre Marketing Co-operative Federation is functioning for the following motivations.

- ★ To develop the activities of Palmgur Industry in the State level.
- ★ For the development of the District Federations and to Primaries, the State Federation would give valuable suggestions, technical ideas, marketing technology and support for their uplift.
- ★ Technical problems will be solved by way of carrying out some Research work.
- ★ Introducing new technological points through Palmgur, Coconut and Date Palm artisans.
- ★ Providing trainings to the village artisans for knowing the technical points through Regional Palm Products Training Centre.
- ★ New technological points will be utilised for the production which would help to increase the sales.

Tamil Nadu State Palmgur and Fibre Marketing Co-operative Federation

- ★ Local sales and Exports will be carried out in large scale.
- ★ The demand of the foreign buyers will also be provided.
- ★ Action will be taken to get more traders.
- ★ Tappable trees will be utilised by utilising the artisans available in the surrounding areas of the JMCS's and a complex will also be formed for the development of the Palmgur Industry.
- ★ Required funds will be availed from the Khadi and village Industries Commission for developing the Palmgur Industry through Tamil Nadu Khadi and Village Industries Board and Tamil Nadu Palm Products Development Board.
- ★ The Loan amount sanctioned will be collected from the respective artisans and the same will be remitted back to the Mumbai Khadi and Village Industries Commission.
- ★ Participating in the Government schemes being newly introduced by the Government of Tamil Nadu.
- ★ Implementing the Amendments passed in the By-laws of the Tamil Nadu State Palmgur and Fibre Marketing Co-operative Federation.

There are 22 branches working under the control of this State Federation. All seven District Federations are functioning under the control of Tamil Nadu Palm Products Development Board, Chennai. 1171 JMCS has also been Registered and functioning in this State.

ADMINISTRATION

The Tamil Nadu Government has recently conducted an election for the apex level Co-operative organisation and an administrative Board with a Chairman and 21 Board of Directors have also assumed charge on 31.8.99. Hence the post of Speical Officer has been abolished and Managing Director has been posted who control the administration work of this State Federation.

136 staffs are working in the State Federation. All the Palmgur artisans are disposing the manufactured articles to the JMCS in their surroundings for reasonable prices. In turn the JMCS taking effective steps to sell the entire edible and the non edible palm products on bulk basis. During the year of 1998-99. The State Federation has produced Rs.208.43 lakhs worth of palm products and Rs.266.13 lakhs of palm products have been sold. Rs.87.89 lakhs worth of palm fibre was also exported to various Countries.

There are three palm sugar plants functioning under the control of the State Federation. By running this sugar plants, direct employment at Mathur, Kada- pakkam and Kumarappapuram are being provided to 525 palmgur artisans during the peak season.

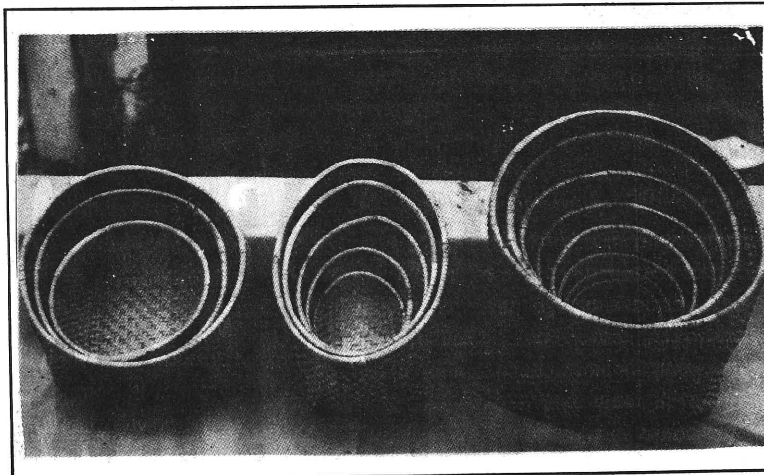
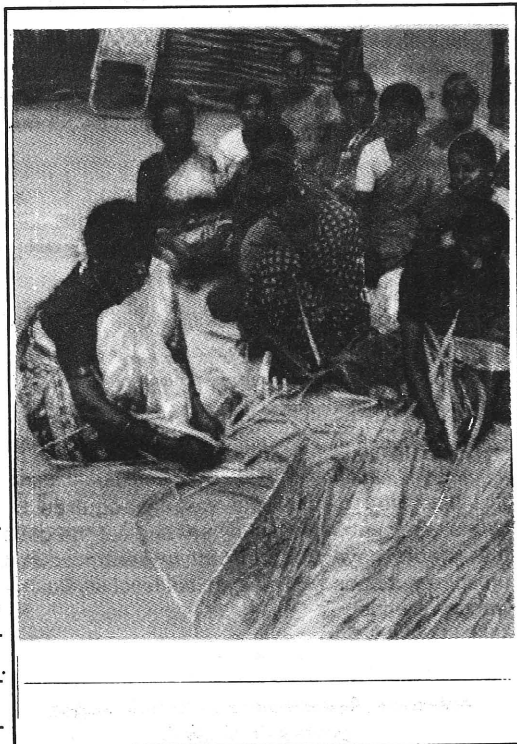
During the year 1998-99 under Part II Scheme, machinaries for processing the coco fibre was allotted by the Government of Tamil Nadu with the grant of Rs.3 lakhs and it is functioning at the Colachel fibre centre.

During the year 1997-98 under Part II Schemes a sum of Rs.2 lakhs was allotted for starting up coco brooms centre at Thiruchitrabalam in Pudukottai District. The produced coco brooms are being supplied to Chennai and to other corporations in the District level. For the current Financial year of 1999-2000, the Government of Tamil Nadu has provided pre-pac machine and cooler for increasing the sales of neera during the season time under Part II schemes.

The variety of edible and non-edible palm products being produced are sold in the out-lets in Chennai City and in other Districts of Tamil Nadu.

Target has also been fixed for production and sales for the current year 1999-2000 as noted below.

Year	Target	
	Production	sales
	Rs. in lakhs	
1999-2000	438.36	507.45



The State Federation is taking effective steps, for achieving the target fixed. The State Federation participates in all the exhibitions being conducted by the Government and in Co-operatives almost in all the places of Tamil Nadu.

For developing and to give employment opportunities palm products training at Regional level are being provided at Cuddalore.

★ ★ ★

பெருஞ் செல்வவாழ்க்கையரும் வறியராய் இரந்துண்பார்;
ஆதலின் செல்வம் நிலைபெறுபையதன்று.

அறுசுவை உண்ட அமர்ந்தில்லாள் ஊட்ட
மறுசுவை நீக்கி உண்டாரும் - வறிகுராய்ச்
சென்றிரப்பர் ஓரிடத்துக் கூழ்எணிற் செல்வம் ஒன்
றுண்டாக வைக்கற்பாற் றன்று.

Who today dine luxuriously tomorrow beg.

Those who ate erewhile, course after course,
food of six flavours, supplied by thier complaisant
spouse, now roam as paupers and beg a mess of
pottage here and there; if so, let wealth be counted
as a thing of nought.

★ ★ ★

செல்வமானதுயாவரிடத்தும் நிலைப்பதன்று; ஆதலால்
அதுஉண்டான பொழுதே பாத்துண்க!

துகடீர் பெருஞ்செல்வந் தோன்றியக்காற் றொட்டுப்
பகடு நடந்தகூழ் பல்லாரோ டுண்க!
அகடுற யார்மாட்டு நிலைந்து செல்வம்
சுடக்கால் போல வரும்.

Wealth abides not, share it and enjoy.

When you own ample wealth acquired by
blameless means, with many sharing eat the grain
that steers have trodden out! In centre poised
prosperity stands with no man, but revolves like the
waggon's wheel.

★ ★ ★

நால்வகைச் சேனைகளை உடையவராய் வாழ்ந்த
அரசர்களுங் கெடுவர்.

யானை எருத்தம் பொலியக் குடைநிழற்கீழ்ச்
சேனைத் தலைவராய்ச்

சென்றோரும் - ஏனை
வினைஉலப்ப வேறாகி வீழ்வர்தாங்
கொண்ட

மனையானை மாற்றார் கொள.

Mighty warriors fall.

Those who rode resplendent forth
on the neck of an elephant, beneath
the state umbrella's shade, as the
leaders of the horse, when 'other deeds'
destroy, shall change and fall, while foes
lead away their wives as captives.

★ ★ ★

செல்வநிலவாது ஆகலானும், மரணம் உண்மை
ஆகலானும், விளைந்து அறஞ்செய்து உய்க!

நின்றன நின்றன நிலை எண்ணாந்
தொன்றின ஒன்றின வல்லே செபிற் செய்க;
சென்றன சென்றன வாழ்நாள், செறுத்துடன்
வந்தது வந்தது கூற்று!

**Do your duty, knowing the instability of all
things. Time flies! Death comes!**

The things of which you said, 'they stand, they
stand, 'stand not; mark this, and perform what befits,
yea! what befits, with all your power! Your days are
gone, are gone! and death close pressing on is come,
is come!

★ ★ ★

யாதாயினும் ஒருபொருள் கிடைக்கின் அதுநிலவாது;
ஆகலின் கிடைத்தபொழுதே அறஞ்செய்தவர் வீடுபெறுவர்.

எண்ணானும் ஒன்றுதங் கையறப் பெற்றக்கால்
ரிண்ணாவ தென்று பிடித்திரார் - முன்னே
கொடுத்தார் உயப்போவர் கோடறிக் கூற்றம்
தொடுத்தாறு செல்லுஞ் சுரம்.

Give before death comes

When you have gained and hold in hand any
single thing, retain it not with the thought, 'This will
serve some other day!' Those who have given
betimes shall escape the desert road along which
death, an unyielding foe, drages his captives away.

★ ★ ★

NALADIYAR

LONG-TERM LENDING BY AGRICULTURE AND RURAL DEVELOPMENT BANKS

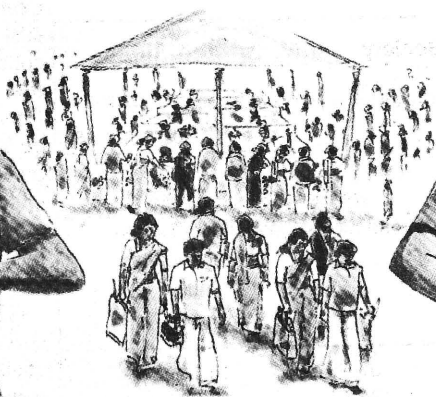
The Long-term Co-operative Credit Structure is a two tier one with the Tamil Nadu Co-operative State Agriculture and Rural Development Bank Ltd., at the State Level and 181 Co-operative Primary Agriculture and Rural Development Banks at the Taluk/Block level. These credit institutions are providing credit to the members for development purposes like minor irrigation, cultivation of horticulture and plantation crops, poultry keeping, Dairying, Sheep breeding, tyre carts, sericulture etc. on schematic basis. Besides, keeping the welfare of public, the Co-operative Primary Agriculture and Rural Development Banks are also providing long term credit under normal lending programme for purposes like repairs to wells, laying of

pipelines, purchase of tractors, power tillers, construction of cattle sheds, farm house etc. The period of repayment of such loans ranges from 3 to 15 years.

Tamil Nadu Co-operative State Agriculture and Rural Development Bank

The Tamil Nadu Co-operative State Agriculture and Rural Development Bank raises the needed fund for loaning operations through floatation of Ordinary and Special Development Debentures. The Ordinary debentures are subscribed by State and Central Governments, Life Insurance Corporation of India, State Bank of India and its groups. Commercial Banks, Tamil Nadu State Apex Co-operative Bank and other State Agriculture and Rural Development Banks. The Special Development Debentures are subscribed by NABARD, State and Central Governments.

The Tamil Nadu Co-operative State Agriculture and Rural Development Bank is publishing a monthly journal "Nilavalam" as an extension service to farmers. The Bank is running one NABARD assisted Junior Level Training Centre at Chennai for giving training to the staff of Primary Agriculture and Rural Development Banks and State Agriculture and Rural Development Bank to update their knowledge and skill for qualitative improvement of the working of the Banks.



Co-operative Primary Agriculture and Rural Development Banks

The needed funds for long-term credit of Primary Agriculture and Rural Development Banks are being channelised by the Apex institution (viz). The Tamil Nadu Co-operative State Agriculture and Rural Development Bank.

The details of long-term loans issued by Primary Agriculture and Rural Development Bank are given below:

(Rupees in crores)

Details of Plan Period	Year	Programme	Achievement
(1)	(2)	(3)	(4)
IX Plan	1996-97	200.00	205.55
	1997-98	226.00	191.60
	1998-99	248.60	212.51

It has been programmed to issue long-term loans under Schemes and Normal to the extent of Rs.247.60 crores and Rs.1.00 crore respectively during 1999-2000.

Financing of Non-Farm Sector

The Primary Agriculture and Rural Development Bank have also undertaken financing of rural artisans, handicraftsmen, small scale entrepreneurs etc, under Non-Farm Sector, since 1990-91 onwards. Under such financing the rural people are benefitted to a great extent in augmenting their income through gainful employment. The NABARD provides 100% refinance under their scheme. The maximum individual credit limit under the scheme is fixed at Rs.2 lakhs under composite loan and at Rs.15 lakhs under integrated loan.

It is programmed to issue loans under Non-Farm Sector, to the extent of Rs.101 crores during the year 1999-2000.

Loans to Small Road Transportors

The Primary Agriculture and Rural Development Banks are permitted to provide loans to individuals and group of individuals including Co-operative enterprises in rural areas for purchase of both goods carriers and passenger vehicles including Auto rickshaws whose gross vehicle weight does not exceed 16.2 tonnes. As such, now financing for mini lorries, pick-up vans, passenger vans, cars and auto rickshaws registered as public goods/passenger carriers with the Regional Transport authorities can be done under NFS Scheme of "Small Road Transport Operators" for transport of farm/industrial produce and passengers. The loan under the above scheme is fixed at 85% of the unit cost, which includes the cost of chassis, cost of body building, taxes etc.

Assistance from the Failed wells Compensation Scheme

A Scheme called "Failed Wells Compensation Scheme" is under implementation in this State with effect from 1.7.1986. Under the scheme, the small farmers, marginal farmers, farmers belonging to Scheduled Caste / Scheduled Tribes who may take up sinking of wells with loan assistance from Primary Agriculture and Rural Development Banks, Commercial Banks and Regional Rural Banks are eligible for 100% subsidy from the Failed Wells

Compensation Scheme, in case such wells have failed. This principal subsidy will be shared equally by the State and the Central Governments and the interest is to be shared equally by the financing bank and the NABARD in respect of schematic lendings. In respect of non-schematic lendings, interest has to be waived by the financing bank from its own funds. From 1993-94 onwards, the Central Government have stopped assistance towards this scheme. However the State Government continues to implement the scheme. ★

Loan to Weaker Sections of Society

The details of loans issued during the IX Plan period are as follows :
(Rs. in crores)

Year of Issue	Total loans issued	Loans issued to weaker sections	% of loans issued to weaker sections to total loans issued
(1)	(2)	(3)	(4)
1996-97	205.55	37.09	18.0%
1997-98	191.60	36.83	19.2%
1998-99	212.51	40.89	19.2%

Any Festival... Any season...
Any time...

Co-optex



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