

**Sustaining Environment
Through
Cooperative Action**

Daman Prakash

630.1(100)

D1907



International Cooperative Alliance

Regional Office for Asia & the Pacific, New Delhi

ICA Library
630.1(100) PRA-S
ICA 00688

ICA 00658

1416

Sustaining Environment Through Cooperative Action

Daman Prakash

18727
25-8-92

2552

630.1 (100)

DRA



International Cooperative Alliance
Regional Office for Asia & the Pacific, New Delhi

ICA Library



ICA 00658



**Sustaining Environment
Through Cooperative Action**
- Daman Prakash

Headquarters :

International Cooperative Alliance
15 Route des Morillons
CH-1218, Grand Saconnex
Geneva, Switzerland

Telephone : (41)22-7984121
Telefax : (41)22-7984122
Telex : (45)415620 ICA CH

International Cooperative Alliance
Regional Office for Asia and the Pacific
"Bonow House", 43 Friends Colony (E),
New Delhi 110065. India

Telephone : (91)11-6835123
TeleFax : (92)11-6835568
Telex : (81)31-75025 DICA IN

August 1992 (1500)

Contents

THE BACKGROUND	1
Initiatives in Cooperatives in the Asia-Pacific Region	1
Sustainability Factors	2
Women as Development Partners	2
People's Aspirations & Participation	3
The Regional Study	4
Study Objectives	4
Presentation	5
AN OVERVIEW	6
Population Pressure	6
Forest Resources of the Region	7
Fertiliser Use	8
Pesticide Use	9
The Green Cover	11
Conservation of Energy	12
Rural Development & Environment	13
"Green Campaign" of Singapore	14
Highlights in Environment Protection	15
Background Facts on NTUC Fairprice Coop	15
Active Support of "Green Campaign"	15
Public Education and Awareness	16

Promoting Recycling	16
Summing-Up	16
THE COOPERATIVE PLAN OF ACTION	17
Study Findings	17
General Recommendations	20
Strategy to boost Coop's Involvement in Environment Protection	20
Suggested Regional Plan of Action	22
Role of the ICA ROAP	22
Follow-up Activities at the National Level	24
Follow-up Guidelines	29

The Background

While the deteriorating condition of the natural environment has been a concern of many ICA member-organisations for a considerable period of time, the topic first appeared on the agenda of the ICA itself during the 1990 Central Committee meeting in Madrid.

Following an extensive discussion, members adopted a resolution which expressed their concern about the critical state of the environment, stressed the inter-related nature of environment and development issues, and called upon ICA member-organisations to “join in local, national, regional and international efforts to address the issues of environment and development, and take measures to stop the degradation of the human and natural environment.” The ICA was asked to serve as a centre of information exchange in this area.

In conjunction with the United Nations Conference on Environment and Development (UNCED) in Brazil in June 1992, ICA coordinated a cooperative participation which included presentation of a cooperative position paper to the U.N. Conference, holding of a two-day Cooperative Seminar at the parallel meeting of non-governmental organisations, facilitating a cooperative exhibition organised by the ICA Consumer Committee and member-organisations, publication of a special environment newsletter, and participation in seminars organised by other organisations.

Initiatives in Cooperatives in the Asia-Pacific Region

During recent years the ICA Regional Office for Asia and the Pacific, along with many of the 56 national organisations affiliated to ICA in the Region, have undertaken a number of initiatives.

The Asia-Pacific Region has major environmental problems. With over half of the world's total population, and almost three-quarters of the world's agricultural population, the Region has less than one-third of the world's arable and permanently cropped land. The population of the Region is

expected to have doubled from 1980 levels by the year 2000. Faced with the twin problems of population pressure and land scarcity, the Region's main response has been to increase agricultural production by intensifying cultivation on a more-or-less fixed land resource base. But there are questions about whether this continued growth in agriculture, fisheries, and forestry development can be continued in a sustainable and environmentally-sound manner.

Two particularly acute problems are deforestation and use of pesticides. Deforestation is greatest in Indonesia, with a mean annual deforestation of over half a million hectares, followed by Thailand, Malaysia, India, Laos, and Philippines. In 1985 the Asia-Pacific Region accounted for 16 percent of the world's pesticide market. By 1995 developing countries in the Region are expected to double their expenditure on pesticides, thereby increasing the negative effects on human health, the environment, and pest resistance.

In 1990 the ICA Regional Office published a small brochure, entitled **A Place to Live**, written by Mr. Daman Prakash, the office's Development Planning and Coordination Adviser. This attempt to sensitise cooperative members in the Region has already been translated and published in Japanese, Hindi, Urdu, Bahasa Indonesia, and serialised in many cooperative journals in the Region.

In the context of environment protection, the ICA Asia-Pacific Cooperative Ministers' Conference held at Jakarta, February 18-21, 1992, made the following recommendation:

"The Conference took note of the importance being given by cooperatives in regard to protection of environment and promotion of ecological plans by cooperatives in various ways. The Conference appreciated such activities in view of the present situation of environmental degradation. The Conference recommended to develop more intensive environment-related awareness activities by cooperatives."

The above points are the positive indicators that cooperative institutions and the cooperative members including all those who are responsible for cooperative development e.g., the concerned government departments, have a lot to contribute in protecting our environment and making the cooperative development sustainable.

Sustainability Factors

Growth in population, reduction in agricultural land, contamination of air and soil, and improper use of technology contribute to the degradation of the environment. This degradation has resulted into: i) warming of the earth; ii) rise in sea level; iii) depletion of ozone layer; iv) occurrence of acid rains; and v) climatic changes.

Cooperatives are peoples' self-help organisations. They are active in the sectors of agricultural production, its distribution, processing and marshalling food resources for a vast number of people throughout the world. A variety of farm inputs are handled including looking after warehousing and transportation of food-stocks. All these activities are closely linked to environmental factors. Here are the responsibilities which cooperative institutions have to discharge being in harmony with environment. Cooperatives are partners in development. Development, to be sustainable, should be: i) carried out in a sustained manner so that the development of cooperative institutions and their characters is preserved and sustained; ii) on the principle of equity; iii) representing the aspirations of the people - the general membership of cooperative institutions; iv) enlisting the collaboration and cooperation of international community; and v) with environmental considerations.

Women as Development Partners

As to the role of women in the protection of environment and sustaining the development of cooperatives, they can play an important role as: i) equal partners in the process of development, and ii) as promoters of family welfare programme. Women, as members of cooperative institutions, are co-owners and co-managers of these institutions. Women can contribute to this movement by coaxing, persuading and even "enticing" their husbands to have restricted families. Let the old traditions and "just-one-son-only" vicious circle not overburden this earth and its resources! Women need to have wider and meaningful opportunities to let this system come into its full play. Their cooperation and participation is necessary.

People's Aspirations & Participation

Environment should not remain the concern of governmental and non-governmental organisations alone. No doubt, large-scale industrial pollution can be prevented by the State (through effective legislative means and executive orders) and organised people, but every individual can do some-

thing towards keeping this earth in its natural form and glory. People are the main actors in this arena. If the problems of the people as identified by the people themselves are to be solved to their satisfaction then encourage the people to participate in the decision-making process. Cooperative institutions are those organisations which they own and operate for themselves on democratic lines.

The Regional Study

Already in this Region some positive steps have been taken by some Movements e.g., the Japanese Consumers' Cooperative Union, the Agricultural Cooperative Movement of Japan, various sectors of the Indian Cooperative Movement etc. During the year 1991-92, the ICA ROAP decided to undertake a comprehensive Regional Study leading to identification of causes of imbalances in eco-system. The Study was also aimed at developing suitable recommendations and national plans for the benefit of cooperative organisations in the Region.

In this connection the ICA ROAP had developed collaborative arrangements with some of the ICA member-organisations to carry out the proposed Study. Active cooperation and support was made available from the Canadian Cooperative Association (CCA), and the Indian Farmers' Fertilizer Cooperative Limited (IFFCO-India). The Study covered the following countries: India, Indonesia, Japan, the Philippines, and Thailand.

Study Objectives

The main objectives of the Regional Study were to:

1. identify the environmental issues faced by cooperatives in various major activity sectors in the Region;
2. take stock of the effective and visible measures already undertaken by cooperatives in protecting environment and the contributions made by cooperatives and other self-help group;
3. suggest methods and techniques of developing greater awareness about environmental issues among all member-countries of the ICA ROAP hence making environment an integral part of sustainable cooperative development planning;
4. develop programme strategies and action plans (short-term and

long-term) for environmental enhancement for each participating organisation for their organisations and country; and

5. make suitable recommendations for each country and to the ICA ROAP and suggest follow-up activity required to implement and monitor local, national and regional plans of action.

The Regional Study was a participatory exercise having been undertaken by the ICA ROAP with the collaboration of its member-organisations. A major part of the expenses incurred on this Study was covered from a grant made available to the ICA ROAP by the Canadian Cooperative Association (CCA). Part of the expenses were covered by member-organisations in the concerned countries. The Indian Farmers' Fertiliser Cooperative Limited (IFFCO-India) a member-organisation of the ICA, identified one of its scientists to work with the project to coordinate the Study and act as Regional Consultant. Similarly, the Japanese Consumers' Cooperative Union developed a national situation paper based on the Main Frame Questionnaire and made all the needed information available to the ICA ROAP for inclusion in the Study report. Likewise the Japanese Study Committee on "Environment and Cooperatives" of the Organising Committee of the ICA Tokyo Congress produced a comprehensive paper on the subject for inclusion in the Study. The participation of the Japanese Cooperative Movement in the Study was spontaneous, voluntary and indeed most welcome.

Presentation

Based on the information collected and the data analysed, this presentation has been made to the 30th Congress of the International Cooperative Alliance held on Tokyo, October 1992.

An Overview

Population Pressure

The Asia-Pacific Region has over half of the world's total population and almost three quarters of the world's agricultural population exists on less than one-third of the world's arable and permanently cropped area. It is estimated that world population in mid-1992 will be 5.48 billion. In 1998 it is expected to reach 6 billion. The annual addition will be about 97 million. Nearly all the growth in population will be in Africa, Asia and the Latin America.

The population in the Asia-Pacific Region is expected to have doubled from 1980 levels by the year 2000. If this population is to be fed, the rate at which food supplies grow should be greater than the rate at which population increases. Assessment of available land resources suggests that 75% of the extra food should come from higher yields. In turn, these yields will require major crop intensification programmes together with major increases in inputs.

The Region as a whole has reached or passed the safe limits for the horizontal expansion of agricultural production. As a result the fragile ecosystems of marginal and submarginal lands are being endangered through over-exploitation by man.

Faced with the twin problems of population pressure and land scarcity the Region's main response, however, has been to increase agricultural production by intensifying cultivation on a more or less fixed land resource base. This has been successful in keeping rates of growth in agricultural production ahead of population growth rates. The question now to be asked is whether growth in agriculture, fisheries and forestry development required to feed and support the ever-growing population can be maintained in a sustainable and environmentally sound manner? As population increases the need to produce more food to feed more mouths gains urgency. If the satisfaction of land hunger leads to the destruction of forests and

common lands, the need to increase production results in the application of more fertilisers, more pesticides and more water to the land for irrigated farming.

As to the role of women in the protection of environment and sustaining development of cooperatives, they can play an important role as: i) equal partners in the process of development, and ii) as promoters of family welfare programme. Women, as members of cooperative institutions, are co-owners and co-managers of these institutions. Women can contribute to this movement by coaxing, persuading and even "enticing" their husbands to have restricted families. Let the old traditions and "just-one-son-only" vicious circle not overburden this earth and its resources! Women need to have wider and meaningful opportunities to let this system come into its full play. Their cooperation and participation is necessary.

Forest Resources of the Region

Forest resources of 16 countries in the Asia-Pacific Region extend over 445 million ha. The countries with more than 20 million ha. of closed tropical forest area in the Region are Indonesia, India, Papua New Guinea, Myanmar and Malaysia. The annual rate of deafforestation is around 1.815 million ha. or 5,000 ha. per day. The causes of deafforestation are shifting cultivation, encroachment into forest areas for agriculture, organized forms of settlement, and loss of forest area for mining, hydro-electric dams and urbanization. Reafforestation efforts in the past were negligible. In recent years "Social Forestry" or "Community Forestry" programmes are gaining ground. However, reafforestation efforts, which amount to only 10% of deafforestation, are inadequate and call for dynamic planning for sustained development of forest resources by developing countries of the Region.

Analysis of the rates of deafforestation by country shows that Indonesia leads all others with a mean annual deafforestation of over half a million ha; Thailand is the next with 333,000 ha. The range is between 100,000 and 250,000 ha for Malaysia, India, Laos, Philippines and Myanmar. The least affected countries in absolute terms are Bhutan (2,000 ha), Pakistan (7,000 ha) and Bangladesh (8,000 ha).

As a consequence of deafforestation and degradation of forest resources, the biological system is near the threshold of a collapse. Unsolved forestry problems in the Region continue to exist and grow. Evidence accumulated has shown that conservation, as well rebuilding tree cover, is best achieved by people's participation on a decentralized self-help basis.

Participation provides the motive force for cooperative action; it helps conserve the natural resources while increasing production.

Fertiliser Use

'Fertiliser consumption in term of kilogram of nutrient per hectare of agricultural land is not very high in Asia in comparison to Europe. However, it is slightly higher in comparison to the world average consumption. Within Asia, Korea and Japan have maximum fertiliser consumption. In Japan where fertiliser nutrient consumption is near 400 kg/ha reports of water pollution due to excessive use of fertilisers have been received. River water, which is also used as drinking water, has been affected. The consumption of nutrients in kilogram per hectare of arable land is significantly more in China and Indonesia compared to that of agricultural land.

Cooperatives, in the countries under the Study, are responsible for distribution of sizeable quantities of fertilisers. However, extension programme for farmers' education through cooperative system about the efficient use of fertilisers and integrated nutrient management is not in vogue. In India, where some programmes in this direction have been undertaken are, in fact, being carried out by the fertiliser manufacturers in the cooperative sectors. In most of the developing countries not only the fertiliser consumption per unit area is to be increased but its use efficiency has also to be increased to a great extent. Efficient fertiliser use is key to minimising pollution hazards.

Fertiliser Consumption per hectare of Agricultural Land 1989-90

Countries	N	P ₂ O ₅	K ₂ O	Total
China	45.4	12.7	3.1	61.2
India	40.9	16.9	6.4	64.1
Philippines	40.8	9.1	8.4	58.3
Japan	121.4	137.9	107.8	367.1
Indonesia	47.2	20.0	7.8	75.0
Thailand	19.8	9.3	6.2	35.3
Asia	31.8	11.3	3.9	47.0
World	16.5	7.8	5.6	30.0

Pesticide Use

In 1985, the Asia-Pacific Region accounted for 16% of the pesticide market. The average annual market growth in the Region has been estimated at 5 to 7%. Of the total estimated consumption of pesticides, 75.8% are in the form of insecticides, 13.4% herbicides and 8.4% fungicides. Insecticides are mainly used for rice, cotton, and vegetable; herbicides for rubber, oil palm, tea, coffee and cacao plantations; and fungicides for vegetables, bananas and tobacco.

Most of the active ingredients are imported from the basic manufacturers in Europe, USA and Japan, although India, Indonesia, Republic of Korea and China are now starting to produce for exports. Most of the countries in the Region have formulation and repacking plants.

Developing countries in this Region are projected to double their expenditures on pesticides by 1995, assuming current use rates. Most of this increase is expected to occur in agriculture. It is also projected that these countries will continue to increase both the absolute quantities of pesticides they use and their proportion of the total global sales.

A number of factors contribute to excessive use and misuse of pesticides by agricultural and health workers in this Region. Some of these relate to economic conditions and related government policies. Governmental pricing and input subsidies, which are intended to stimulate agricultural production, lower the costs of pesticides and other agricultural inputs, thus providing incentives to use more. In the health sector, subsidies are used because of the importance of lowering the incidence of illness caused by vector-borne diseases. Again such subsidies create incentives to use more pesticides. In many cases the subsidies are channelised through cooperatives. The cooperatives are also involved in distributing agro-inputs including pesticides directly and also through distribution of credit.

Many farmers in this part of the world use substantial quantities of pesticides because they find pesticides to be convenient means of pest control and because they lack information on alternatives. Climate is another factor. Tropical climates permit more crop cycles per year than temperate zones, so that over the course of a year greater quantities of pesticides are commonly used. Workers frequently reject protective clothing as too uncomfortable to use in tropical climates.

Lack of information on hazards is a common contributing factor to

pesticide misuse. User illiteracy and warning labels in languages other than that of the users, as is the case in countries with no regulations, impede the communication of appropriate information. Additionally, farmers frequently lack access to technical assistance. Further, lack of proper training on the safe handling and efficient application of pesticides is another important contributing factor to pesticide misuse. In countries where pesticide use is not controlled, agricultural workers often have access and are exposed to highly toxic products which require special protective equipment. Farmers are often unaware of the importance of observing practices that may reduce their exposure to pesticides.

The problems that result from misuse of pesticides are numerous, most important of which are: human health effects, environmental damage, and pest resistance.

In this Region, there has recently been great awareness on the need to control the residues on food, especially among agricultural commodities that are exported. A large number of studies have been conducted on pesticide residues in vegetables. In general, conclusions are that the residue levels are below the recommend Maximum Residual Limit (MRL) but that there are cases when these are exceeded and affect the countries exports. Since organochlorines (DDT, BHC, endrin, aldrin) have been used extensively in this Region for the past 10 years, even if banned, residues persist. A number of studies have been conducted to measure the extent of the problem and the impact on soil, water and the fish. In Thailand, for example, organochlorine residue studies from 1976-1985 show that about 50.5% of the water analyzed from canals, rivers, and reservoirs still contain residues; 90.6% of the fish shellfish; and 96.6% of the soil from agricultural fields.

It is not enough to highlight the problem of pesticide misuse. Awareness of the situation is only the first step. The bigger, more important step is to find solutions to the problem. It was in this light that FAO developed the International Code of Conduct on the Distribution and Use of Pesticides. It is the only international initiative which addresses most to the aspects of the pesticide problem and seeks to provide acceptable standards of conduct for governments, industry and the general public on the distribution and use of pesticides. Indonesia has successfully implemented Integrated Pest Management (IPM) programme for rice cultivation in which reduction in pesticide use was achieved alongwith the increased crop yield.

The Green Cover

Green cover does not mean planting trees only. This activity also includes protecting the already existing ones and planting trees which could, over a period of time, become a source of income for the growers. In India, some instances of positive initiatives have been noticed. Trees have been planted on salt-affected soil on an experimental basis by the IFFCO. The effort is commendable. The benefits seem to be manifold: these yield timber, fuel and fodder, there is change in soil quality which supports the cultivation of cash crops, the once-unskilled villagers have acquired enviable expertise in afforestation and, perhaps not important of all, the greening of the soil has stimulated them into attempting yet another venture like aquaculture to supplement their income. The IFFCO has also undertaken several social forestry programmes with success in some parts of the country.

The Tree Growers' Cooperatives, initiated by the National Dairy Development Board are also successful. They not only provide employment to the people but also ensure for them a variety of opportunities in the future to supplement their incomes. These cooperatives, over a period of time, would generate a variety of activities e.g., firewood, forest products, fruits, fodder for the animals, water resources, timber etc. The National Wasteland Development Board of India also provides incentive to cooperatives to grow trees. Cooperative industrial units are also developing greenbelts, treatment of waste water, efficient use of energy, sanitation etc.

Cooperative institutions in rural Indonesia are also involved in planting "sengon" trees under a centrally-sponsored programme called "sengonisation programme". In the Philippines also cooperative institution in rural areas are engaged in tree planting activities.

In Thailand under the Conservation of Natural Resources and Environment Programme, cooperatives are actively involved in: reafforestation in North-East land settlement cooperatives; planting of fruit trees, one-million tree planting campaign in connection with King's Mother birthday celebrations; Teak growing promotion activities. In the Chiangmai and Chiangrai provinces cooperatives are also involved in "no-trees-no-water-and-no-electricity" campaign

In the Philippines, the NATCCO has recommended to its constituents that persons who have planted some trees and who support the tree-plantation activities should be given a positive consideration while admitting them to the membership of a cooperative society. The NATCCO also assists

in the formation of cooperatives among forest-dwellers and tree-planters.

With these isolated yet encouraging experiments it is hard to believe that the loss of forest resources could be recovered. More intensive activities need to be undertaken where cooperatives can play significant roles.

Conservation of Energy

Keeping in view the current consumption level of energy, it is seen not too far when the fossil fuels would get exhausted. There is need to develop and exploit other sources of energy. In some of the cooperative institutions solar energy has been used for lighting and heating, but that still is on an experimental basis and serves more as a show piece. There are no visible signs where bio-gas, wind energy or solar energy has been put to a real and wider use.

In the cooperative sector not much has been done to conserve energy or to utilise or exploit other sources of energy although there are large number of industrial units and housing complexes within the cooperative sector. Some instances of successful application of alternative sources of energy have been noticed within the Indian Cooperative Movement e.g., gas from bio-gas plant used as a fuel for the distillery of a sugar cooperative; dairy cooperatives are promoting solar cookers, wind mills, solar panels and bio-gas for a variety of uses; recycling of empty plastic pouches by dairy cooperatives, etc. A village cooperative in Java (Indonesia) introduced solar energy to 11 villages. There are 500 solar generators producing 130 kw each per day without major maintenance or repairs. Such experiments need to be replicated.

In Japan intensive research is being carried out to produce battery-operated delivery vans with a view to conserve fuel and to eliminated pollution. The project is being carried out by the Japanese Consumers' Cooperative Movement in collaboration with the leading motor vehicle producing companies.

In the process of recycling of waste material the underlying concept is to save energy, save further exploitation of natural resources, control pollution and thereby eliminating waste material clogging the streams and polluting the environment. In China, for instance, the efforts of Shanghai Resource Recovery Utilisation Company (SRRUC) are noteworthy. This company, through its facilities, handle recycling of a variety of waste material e.g., ferrous and non-ferrous metals, glass, waster paper, iron and steel shavings



Soil Erosion : The terrace farming without attention being paid to the erosion of soil that is already taking place



Indiscriminate minning for clay poses a real danger to ecological balance. Land- slides and flash floods are the logical consequences



Air pollution : High volume air sampler installed at one of the plants of IFFCO in India



The Green Cover : A view of a social forestry farm developed by one of the fertiliser cooperatives in India



Wood as fuel : These women are bringing home the wood from the forest



Social Forestry : A view of the social forestry farm developed by the IFFCO



Co-op stores in Japan have installed special cabinets for receiving re-cyclable empties

and filings, rubber tyres, old shoes, rubber pipes, PVC, a variety of plastics, parts of computers, radios, TVs, photographic material, ropes, cotton ends, wires, cans etc. By these efforts, the SRRUC is generating new and useable resources from waste and scrap thus consuming energy and natural resources.

Except for Japan, cooperatives have not provided any information on the steps taken by them to conserve energy through: use of air-conditioning systems, vehicle maintenance, disposal of used oils and lubricants, recycling of waste paper, health-related environment programmes, studying the life-style of people, reducing use of plastics for food wrapping and shopping bags etc.

The Japanese Consumers' Coops are now restricting supply of plastic shopping bags. The Coop Stores encourage members and customers to carry their own shopping bags. The shopping bags are, however, being supplied by the Coop Stores, but at a price. The proceeds of these sales are used for humanitarian activities e.g., donations to the Unicef and/or supporting technical assistance programmes in developing countries.

Environment-friendly products and environment protection activities are very closely integrated in the activities of the consumers cooperative movement in Japan especially by emphasising on recycling of waste materials e.g., cans, glass, paper, carton etc. The coops in Japan are now using a special seal or a mark on their products that these are environment-friendly. Such initiatives need to be publicised and necessary expertise to be made available to other Movements.

Rural Development and Environment

Due to multi-agency involvement in rural development without attempting a proper coordination, the development inputs do not adequately include environment concerns and activities. Agencies involved, for instance, in supply of drinking water in rural areas, will come to the village, lay down pipes and fix water taps without taking care of the steps that need be taken to handle the waste water and ultimately creating sanitation problems and health hazards in the village. Cooperative institutions could, therefore, be used by development agencies to undertake rural (rather village) development programmes on an integrated basis keeping in mind the environment concerns.

Cooperative institutions which are engaged in processing, industrial and

other manufacturing activities should voluntarily go one step further to undertake environment-related activities than the ones which are mandatory according to the law. This initiative is lacking and cooperatives tend to "shirk" their responsibilities, perhaps due to ignorance, fear of over-expenditure or indifference. There is need to create awareness among the cooperative members and the general public that all environment-friendly activities are of use to mankind.

Although cooperative education and training structures exist in the covered countries, no special efforts have been made to include environment-related topics in the curricula intended for ordinary cooperative members, cooperative employees and cooperative leaders. In the context of Japan, however, both consumer and agricultural sectors are actively pursuing environmental education for the members, students and general public. Activities like acid rain tests, local environment and pollution tests are being taught to cooperative employees and students. Such initiatives are necessary and need to be undertaken by other movements in the Region.

Environment should not remain the concern of governmental and non-governmental organisations alone. No doubt, large-scale industrial pollution can be prevented by the State (through effective legislative means and executive orders) and organised people, but every individual can do something towards keeping this earth in its natural form and glory. People are the main actors in this arena. If the problems of the people as identified by the people themselves are to be solved to their satisfaction then encourage the people to participate in the decision-making process. Cooperative institutions are those organisations which they own and operate for themselves on democratic lines.

"Green Campaign" of Singapore

The environment-friendly activities carried out by the Singapore Cooperative Movement are quite impressive and due notice of these successful initiatives deserve to be taken. In an effort to project the Island Republic, as a country of efficiency and technological advancement, the authorities and the citizens have, over a period of time, enacted a variety of laws and imposed upon themselves strict discipline on environment and health related matters. Enforcement of legislations are vigorously pursued, backed up by truly deterrent penalties. Impact of campaigns and legislations are being closely monitored. Rapid changes, such as demographic changes, changes in land-use parameters, rising affluence and aspirations necessitate new policy goals to be devised to meet these changes.

Highlights in Environment Protection

a) Singapore banned the manufacture and import of CFC in February 1991. This is ahead of the schedule set by the Montreal Protocol which requires countries to reduce the use of ozone-depleting CFC by the year 2000; b) Lead-free petrol was introduced for use by motorists in January 1991 to protect the environment as lead emission from car exhausts pollutes the atmosphere; c) The mushrooming of environment groups and their growing roles testify to the increasing "green" consciousness among Singaporeans. One example is a voluntary 19-member National Council of the Environment which aims to encourage schools, business and individuals to think and act green; d) The government, business and community organisations joined force to develop 'Recycling Cabinets' for placing in housing estates, hotels, petrol kiosks to help the recycling of paper, plastic and batteries; e) The government had accepted most of the Malayan Nature Society master plan marking 27 areas of conservation to help preserve wildlife and fauna in these areas.

Background Facts on NTUC Fairprice Cooperative

a) NTUC Fairprice Cooperative is a multi-purpose cooperative registered under the Cooperative Societies Act. The Cooperative aims to stabilise the cost of living in Singapore through its retailing and trading operations; b) The share capital of NTUC Fairprice is contributed mainly by trade unions and union members; c) It is the largest supermarket group in Singapore, operating 41 supermarkets/department stores, 2 coffee shops, a printing workshop and a trading division; d) For the year ended 31 March 1992, the Cooperative had a staff strength of 2,000 and an annual sales turnover of S\$462 million.

Active Support of "Green Campaign"

NTUC Fairprice actively supports the "green campaign" through its various programmes. a) The Cooperative completed the withdrawal of products containing CFC from all its supermarkets in April 1990, ten months ahead of the government's ban of CFC products in February 1991; b) Fairprice is the first supermarket group to launch the use of photodegradable plastic carrier bags for customers in June 1990; since then, these plastic bags are being used; c) As an on-going project, "How to be green" messages are being printed on the plastic bags to remind shoppers to be kind to the environment; d) Fairprice is also the first supermarket group that introduced the use of paper-bags made of 100% recycled paper for custom-

ers to pack dry and not so heavy purchases; e) To promote the awareness of green products, Fairprice conducts regular promotion of environment-friendly products through advertised offers and other promotions.

Public Education and Awareness

a) To inculcate in children the habit of keeping our environment clean, on-the-spot colouring contests with "green environment" themes were organised regularly outside Fairprice supermarkets; b) To spread green messages in a fun way, the Cooperative organised pop concerts compared by local radio station deejays and performed by popular artistes; c) Fairprice was also a participant in "Care for the Environment" exhibitions organised by the Ministry of the Environment; d) Attractive and colourful "green" publicity materials were developed for distribution to customers to create awareness and interest, such as pocket-calendars and book-mark cum calendars printed on recycled paper.

Promoting Recycling

a) Through an annual on-going community service - the used textbooks project, Fairprice collected used textbooks from the public for free distribution to needy students. Since its inception in 1983, 470,000 used textbooks were recycled, benefitting 45,000 students; b) The Cooperative was presented the PRISM (Public Relations in the Service of Mankind) Award 1992 by the Public Relations Institute of Singapore for this outstanding contribution to the community; c) Singapore as a nation and NTUC Fairprice Cooperative will continue to work together with other nations and cooperatives towards making "the Earth a secure and hospitable home for present and future generation".

Summing Up

Although there are positive steps taken by various Cooperative Organisations to control pollution and to improve environmental situation, there is on the whole a clear signal that cooperative leaders and members are not yet aware of the dangers of degradation of environment. Institutions are not "prepared" to take another step forward than the ones that are stipulated by law. There is a strong need to intensify discussions on environment within the Cooperative Movement in Asia. The pitch has to be high and clear !

地球に優しい電気配送トラック

ENVIRONMENT FRIENDLY ELECTRIC DELIVERY TRUCK



第1次試作車1991年1月完成
The first prototype was completed in January, 1991.



第2次試作車1992年5月完成
The second prototype was completed in May, 1992.

CO-OP EV-2000

Controlling air pollution: "Environment-friendly" electric delivery trucks developed by the automobile industry in cooperation with consumer cooperatives. 1,400 such vehicles are already on the road in Japan and by 2000 A.D. 100,000 such vehicles are planned to be produced

Stop the Destruction

The horrific results of slash and burn



Photo : WWF Mauri Rautkari

Over half a million hectares of forest disappear annually in Indonesia owing to population pressures

The Importance of Water

Photo : WWF Mauri Rautkari



Women carrying water near Sasan Gir, Gujarat, India - water shortages means that, in many developing countries, (mainly) women have to walk miles each day to fetch water

Reforestation

Photo : WWF Mauri Rautkari



Reforestation : a tree plantation in Madras, India. An intelligent use of natural resources means that nothing is wasted. Planted trees are harvested after eight years; trunks are used for building homes, etc.; branches and roots are used for household energy requirements.



Women, as partners in the process of cooperative development, can contribute in sustaining our environment

The Cooperative Plan of Action

The study on “Environment and Sustainable Cooperative Development” in the five nations of the Region India, Indonesia, Japan, Philippines and Thailand reviewed the current status of environment management in cooperatives. Background informations on demography, geography, land use, cooperatives and, rules and regulation for the environmental protection were also collected. Environmental issues faced by cooperatives and causes of imbalances were identified. The cooperatives have already taken certain steps to protect the environment. These measures were also highlighted.

Study Findings

Lack of awareness about environmental protection methods and environmentally friendly practices and products, deforestation, land degradation, disposal of waste, air and water pollution were, by and large, the common environmental issues confronted by the cooperatives in all the nations. Increasing pressure of population on country’s available resources was also common to all the countries under the regional Study.

Depleting forest was caused by several reasons in different nations. It was mainly for recreational purposes in Japan, for fuel wood in India, for timber and housing area in the Philippines, for agricultural purposes in Thailand and due to unsustainable forest management and over-grazing in Indonesia. Unsustainable use of marine and coastal resources was another environmental issue faced by the cooperatives of all the nations. Much of the water pollutions was caused by excessive use or misuse of fertilisers and pesticides in Japan, Thailand, Indonesia, and Philippines. Waste disposal and industrial effluents were other major water pollutants in all the countries.

Major reasons of air pollution was reported to be due to emissions of gases from industries and exhaust from automobiles. Smoke from household was also considered an air pollutant particularly in India. Gasoline having lead has resulted in high lead content in gasses and other vegetations

along the road side, which was ultimately grazed by the animals and caused toxicity problems.

Packaging material of consumer's goods was also identified as major environmental threat as disposal of these material has added to the garbage heaps in urban areas and also many of them are not biogradable and result in problem of solid disposal in the open water drains and rivers.

Agricultural, consumer and industrial cooperatives were found to have immediate direct role in environmental protection. Various steps have been initiated by the cooperatives in these countries to minimise the pollution hazards and also to create better environment. Japanese Cooperative Movement has played significant role in this direction. Both, agricultural and consumer cooperatives have taken positive steps to promote environment friendly practices and products. Japanese Consumers' Cooperative Union (JCCU) during 1990 has undertaken programmes related to following issues for conserving the environment:

1. Recycling of used milk cartons.
2. Recycling of waste.
3. The water environment.
4. Monitoring of air pollution.
5. Forest, golf courses and pesticides.
6. Meetings, campaigns and inside operation.

JCCU's Ecomark Programme has identified the products which are friendly to water, air, forest, nature saving resources and energy, and can be regulated. These products include soaps, toothpaste, strainer bags, non-bleached papers, non-gas sprays, cellulose sponge, refill packaging products, diaper made of fabric, canned beverage with a stay-on-tab.

Consumer cooperatives in Japan formulated a policy on environmental protection activities with member participation. In fiscal year 1991 every society implemente a wide range of environmental protection activities including the members activities such as reviewing life style, recycling and environmental monitoring, the development and promotion of environmentally-friendly products, environmental care in business operations of stores etc. and net-working for environment protection.

A campaign of "Environmental Conservation Agriculture" 3H (Healthy, High-tech and High quality) agriculture was promoted with an emphasis on

organic farming and optimisation of fertilisers and pesticides use. The cooperative associations are also carrying on a production movement based on the policy for supplying safe and good quality food and agricultural products.

Tree planting and afforestation has been taken up intensively by cooperatives in India, Indonesia, Japan, Philippines and Thailand, However, the extent of forest loss is such that this activity needs further expansion and strengthening.

Industrial cooperatives which are considered to be major polluters, through emission of gases and effluents, are, by and large, observing pollution control norms fixed by the respective governments. In India, in addition to observing these norms of control on direct pollutants, creation of greenbelt around the industrial units is also made mandatory and all the cooperatives are trying to maintain the green belt.

Dairy cooperatives, both in India and Indonesia, have taken up environmentally friendly activities at the places of rearing animals and also at the milk processing plants. General healthiness of environment and animals through cattles management and veterinary activities have been taken up. At the processing plants effluent treatment and recycling of polypacks is being carried out.

Indonesian Handicraft Cooperatives which promote traditional articles made of hides and skins are entering an area where some of the animals important for balancing the ecosystem are endangered. Cooperatives have taken up the activity purely because of commercial reasons, as these articles are purchased by the tourists. Alternative material and crafts are to be provided to the members of these cooperatives.

The Study has clearly brought out that lack of awareness about environmental issues in the cooperative sectors is a major constraint in taking up environmental protection programmes. National Cooperative Union (NCUI) in India, Dekopin in Indonesia, JCCU in Japan, CUP and NATCCO in Philippines and Cooperative League of Thailand can take lead in launching general awareness campaigns in active collaboration with the government; NGO and cooperative federations. All the nations covered under the Study felt the immediate need of preparing some education and training material for general environmental awareness. A comprehensive study to identify the problems in individual cooperative sectors can also be undertaken for identifying and formulating specific programmes for each sector.

Agricultural cooperatives, including agriculture credit, dairy, forestry, fisheries, land settlement cooperatives; consumers cooperative and industrial cooperatives are the ones which need awareness programme at once. Optimum and efficient use of fertilisers and pesticides, waste management and land degradation are the major common environmental issues which the cooperatives have to manage.

It was amply clear that cooperative organisations and cooperative members need a strong motivation to undertake environment awareness activities on their own since their own development is at stake. The national consultants emphasised that, to begin with, some external inputs may be necessary to provide encouragement and motivation to the cooperative organisations. Ultimately, for the cooperative development to be sustainable, the initiative and the needed resources should come from within the cooperative institutions themselves. The ICA ROAP may strive to bring this point home to its constituents in the Region.

General Recommendations

Following are the general recommendations which have emerged out of the ICA ROAP Study on Environment and Sustainable Cooperative Development :

- The developmental planning of nations should relate GNP target to quality of life of the people in general and select business investment which are conducive to sustainable development;
- Cooperative Movement should include the subject of environmental protection in their business plans;
- Cooperative organisations should take note of the findings of this Study and initiate appropriate follow-up action;
- Cooperative Movement should also respond to community's need for environmental protection;
- Industry, in general, should take responsibility for environmental protection and encourage waste minimisation and recycling. Environmental management in industry should address itself to "clean technology" rather than "clearing technology."

Strategy to Boost Cooperatives' Involvement in Environment Protection

Keeping in view the present state of environment in the Region, and

taking into consideration the efforts made by cooperatives in overcoming the environment-related problems, and upon analysing the various development efforts that are needed to be made by cooperative organisations and the concerned government department, the Study suggests that the following points are relevant to develop a suitable strategy to boost cooperatives' involvement in environment protection:

- Great emphasis is needed on creation of awareness among cooperative populace on all issues relating to environment protection;
- Great need is felt to create and develop suitable and effective awareness programmes, materials and publicity campaigns;
- Environment-related topics to be included in cooperative education and training programmes;
- Cooperative federations to carry out awareness programmes for their affiliates and their ultimate basic members;
- Cooperatives engaged in production and distribution sectors to ensure the safety and quality of goods handled by them;
- Cooperatives to remember “Energy saved is energy generated” and “There is great wealth burried under the garbage” thereby providing momentum to energy conservation and waste resource recycling;
- Cooperative Movements having experience and resources in the sectors of environment protection to come forward to help, support and collaborate with sister-movements through expertise, exchange of information and financial resources;
- Cooperative Movements to set up an international environment unit within the ICA - an international cooperative network - to channel technical assistance, information and further interaction with member-movements;
- Cooperative Movements to set up an international environment fund and contribute to it liberally. The fund may support clearing house services, training, education, research and development activities;
- Cooperatives to collaborate with respective national governments in the sectors of environment and sustainable cooperative development

Suggested Regional Plan of Action

Based on the information compiled in the Study, it was viewed that cooperative institutions and the cooperative members are generally unaware of all the ill-effects of pollution. Much of the environment degradation is the result of lack of awareness. Members and cooperative institution considered the environment matters to be the responsibilities of the State. However, some of the cooperative institutions in the covered countries demonstrated beyond doubt that cooperative institutions are aware of the consequences of imbalance in eco-system and that they have taken remedial steps to ensure that the products they produce and market are pollution-free and environment-friendly. It was noted that some of the general environment problems faced by cooperatives in the covered countries are: fertilisers and pesticides over-use or misuse; animal waste disposal; land degradation; and excessive urbanisation at the cost of agricultural lands and green cover.

The Study firmly concluded that cooperative organisations in the Region should undertake, on a priority basis, intensive awareness campaigns among the cooperative populace “to continue the battle to protect the environment, by supporting their societies’ environmental campaigns and sustainable development programmes, lobbying local government to adopt environment-friendly policies, boycotting products which are harmful to the environment, recycling reusable items and informing themselves and educating their children about nutrition and the environment”. It was impressed upon the International Cooperative Alliance to interact with its member-organisations intensively and as frequently as possible. If the world’s environment is to be truly protected we need a massive programme of wealth transfer from rich to the poor, the establishment of a more equitable global economic equilibrium and the most strenuous efforts to ensure that the world’s population does not exceed the numbers that it can healthily contain.

Role of the ICA ROAP

As a part of the Study, a Regional Plan of Action to be followed-up by the ICA was developed. Given below are the points made out by the Study on this subject:

- 01 to help its member-organisations and the respective governments in setting up policies and programmes aimed at enhancing awareness on environment-related problems among the cooperative membership in

the Region. This is to be achieved by influencing the decision-making process among the cooperative organisations and through them the respective government agencies and departments.

- 02 to offer cooperation, collaboration and technical support to ICA member-organisations in carrying out the needed studies and workshops which are able to crystalize national action plans, and identify feasible projects for implementation in the sector of environment.
- 03 to study and analyse the identified projects and float them for funding among the interested donor agencies and provide the needed coordination and collaborative support.
- 04 to give publicity to the practice of "eco-labelling" the products which has been introduced by some of the cooperative organisations. The ICA may assist the cooperative organisations in establishing norms which could qualify a product to receive an eco-mark or eco-labelling.
- 05 to provide opportunities and facilities to cooperative institutions in the Region to vigorously pursue the programmes of recycling of waste resources and help in the transfer of the needed expertise and technology.
- 06 in collaboration with its member-organisations set up an Environment-related Clearing House and Experience sharing service and procure, produce and issue success stories, news and other informatory material among cooperatives and governments in the Region for a wider circulation.
- 07 to initiate steps to set up an Environment Unit/Environment Fund to support environment-related education, training and research activities.
- 08 Environment-related matters be suitably included in all technical projects of the ICA ROAP.
- 09 to pursue closely the follow-up of the Study and encourage its member-organisation to conduct follow-up activities and development of national plans of action.
- 10 to support and participate in the activities of international and national agencies which deal with environment and which have close relationship with cooperatives.
- 11 to collaborate actively with the ICA Congress Organising Committee in the formulation of the ICA Declaration on Environment proposed to be issued in Tokyo by the 30th Congress of the International Cooperative

Alliance. The ICA ROAP to give widest possible publicity to the ICA Declaration and formulate the needed plans and programmes to implement the Declaration.

- 12 In all the activities of the ICA ROAP it should be ensured that the development of cooperative institutions in the Region is sustainable. For this purpose a multi-facet development approach is needed. Environment-related issues are closely hinged on the population activities, judicious land use, environment-friendly farm practices, safe and healthy consumer articles and an objective educational and training programmes. The ICA should aim at helping the cooperative organisations to develop an integrated programme of development, taking into consideration the issues relating to environment protection.
- 13 should strongly recommend to its member-organisations to include environment-related topics in their education, training and extension programmes so that a well-informed and well-motivated cadre of environmentalists is quickly created.
- 14 to request all its member-organisations to take up environment-related topics at their Board meetings in order to create and generate interest among their affiliates. The member-organisations may also be requested to establish Environment Units within their structures to monitor programmes in this sector.
- 15 to encourage its member-organisations to coordinate their programmes with the respective departments of their respective national government so that well coordinated programmes are initiated and carried out.

FOLLOW-UP ACTIVITIES AT THE NATIONAL LEVEL

The Study identified assignments for the cooperative organisations, government agencies and other agencies involved in the process of cooperative development. It has been highlighted that environment awareness is not one factor, rather it is an integral part of the entire process of cooperative development. The following assignments were laid down by the Study:

What Needs to be Done !

First and foremost is the creation of a national environment protection policy for the cooperative sector. To do this it is absolutely necessary that a national consultation on this topic takes place. This is a logical sequence of identifying the present status, analysing the present status, identifying prob-

lems areas, and then getting together to develop strategies to overcome problems and then develop plans of action for local, regional and national implementation. This is the most important task for the Cooperative Movement. It is the need of the hour and an absolute must.

(a) Cooperative Movements Level Assignments

- All national level cooperative organisations should review their member education, employees training and development programmes carefully keeping the environment factor in view and from the standpoint of a sustainable cooperative development. If they own processing units, necessary steps should be taken to control pollution and encourage greenery projects.
- Intensive publicity and propaganda campaign should be launched to generate awareness among the constituents.
- In large office complexes owned by cooperatives special campaigns should be launched to keep them clean, fresh and environment-friendly e. g., cross ventilation, natural lighting, toilets, office rooms, disposal of garbage, cooking areas, proper use of electricity, use of recycled paper, avoiding unnecessary paper works, smoke-free environment, store rooms godowns, etc.
- Organisations using a large number of vehicles and operating diesel/petrol driven machines should see to it that the engines are properly tuned, well-oiled and properly maintained that they do not emit gases, heat and unwanted noise. Also ensure that the oils and lubricants are not spilled on the ground and/or disposed off in pits outside the town.
- All cooperatives having large compounds or open spaces or waste land should launch a tree planting campaign.
- Cooperatives dealing in chemical fertilizers and farm chemicals should ensure that they are properly stored, transported, checked and maintained. Proper education on their handling and application is imparted to the dealers and end-users. Disposal of empties is also equally important. This responsibility is also that of the distributor of such materials.
- All cooperatives dealing with community should support the com-

munity life by providing street-lighting, drinking water facilities, normal public health checks and ensure that the waste water from the community does not create sanitation problems. Streets may have to be lined. Cooperatives should participate together with the local government in community development activities.

- Experiments carried out by progressive organisations in environment protection should be given widest possible publicity so that other cooperatives such as dairying, sugar, textiles, leathers etc. also get encouraged and develop suitable environment-friendly products and programmes for the community.
- Greater encouragement should be given to women and youth so that they involve themselves in environment-related activities.
- All national level cooperative organisations should create within their organisational structures an Environment Information Cell whose responsibility should be to collect information from their constituents in this sector. These cells should be the promoters and extension agencies in preserving environment. A similar unit should be created in all the Ministries responsible for cooperative development.

(b) Assignments for Training/Education Institutions

- All organisations concerned with cooperatives education, training and extension should enrich their programmes and courses by including subjects relating to environment protection and ecology. It should be clearly understood that environment awareness is not an isolated topic, it is indeed a part of the whole subject.
- All such organisations should generate extension materials e. g., photographs, posters, booklets, video films, etc. to be used as information tools at various levels and in various languages.
- At the national level cooperative management institutes, a special programme for providing orientation in this sector for the senior level government and cooperative officials should be developed and vigorously pursued without much delay.

(c) Government Responsibilities,

Although the governments are already engaged in environment affairs

at various levels, there is a need for the Cooperative Ministries and Departments to support, monitor and accelerate programmes relating to environment protection.

- The Central Ministry of Agricultural and Cooperation convenes a national level conference of cooperative ministers, senior officials, cooperative leaders and other prominent leaders and environmentalists to discuss and formulate a national policy on the subject with special reference to cooperatives. The government could provide encouragement and motivation for the cooperatives to participate in such a programme.
- If necessary, legal support be provided to cooperatives engaged in environment-related activities.
- The government could encourage, promote and support some of the pilots projects in this sectors and, if found successful, be replicated for other parts of the country.

Roles Cooperatives Can Play

Cooperative institutions as peoples' organisations can play a significant role in creating awareness among the people. These could be by:

- Creating awareness among cooperatives and cooperative members through extension programmes and publicity campaigns. Environment protection is an integral part of the entire process of the cooperative development.
- Developing educational and training programmes for board members and staff members.
- Giving publicity to environment-related successful measures taken by cooperatives.
- Collaborating with cooperatives abroad in exchanging information, techniques and expertise.
- Creating awareness among the people on the consequences of increase in population. Special programmes on population control can be undertaken by cooperatives in collaboration with government concerned agencies.
- Creating awareness among the people on the consequences of

cutting down trees indiscriminately.

- Creating awareness among the people on the consequences of flow of waste water in village streets.
- Creating awareness among the people on indiscriminate mining and digging up soil for brick-kilns etc.
- Educating farmers on the use and handling of chemical fertilizers, insecticides and pesticides e. g., DDT.
- Educating people on the importance of washing vegetables and fruits before consuming them.
- Informing people on the use of alternative sources of energy for cooking, heating and lighting. Included also is the increasing use of bio-gas for domestic use.
- Encouraging people to develop social forestry programmes.
- Encouraging people to participate in community development programmes e. g., rural sanitation, cleaning of school premises, cleaning of village streets, repairing of leaking water taps, discussions with the nearby factories or mills, developing modest rural health programmes, better management and greening of wasteland etc.

The main emphasis of cooperative extension activities should really focus on: population control, stopping the rural youth from moving away from the rural areas to the cities (perhaps due to the lack of employment opportunities in the villages, and also perhaps due to the lack of vocational training opportunities in the villages), soil erosion, tree planting, education of members, and making the cooperative as an economic centre of the village.

While national awareness planning and action plan is necessary, a real work could be done at the basic level. Cooperative institutions can interact strongly with the rural local self-government agencies in order to develop an integrated environment development strategy. This would involve awareness, extension, training and development activities. A strong well-informed and properly trained cadre of environment-conscious "missionary" workers has to be developed who could provide, on a regular basis, education and information on various aspects e. g, rural/general sanitation, farm guidance, hygiene warehousing and handling of products, afforestation, water testing, systematic handling of chemicals and fertilizers, disposal of garbage, recy-

cling of waste material, setting up of a bio-gas plant, family welfare and child care etc. etc. The national and provincial cooperative(business) organisations can formulate strategies, develop and provide back-up services e. g., curricula, trainers' training and extension of field materials, training packages, handbooks, and also identify, secure and provide proper funding for implementation of programmes. Vocational training facilities for rural youth should also be created e. g., repairing of household items, cycles, motor cycles, electrical items, welding, carpentry etc.

Simple, attractive and well-researched material may also be produced by concerned agencies and widely distributed. Some of the topics could be:

- Environmental protection and Dairy Cooperatives;
- Environmental protection and Industrial Cooperatives;
- Environmental protection and Leather Cooperatives;
- Environmental protection and Sugar Cooperatives;
- Environmental protection and Textile Cooperatives;
- Environmental protection and Fertiliser Cooperatives;
- Environmental protection and Warehousing;
- Environment and Tree Growers' Cooperatives;
- Environment and Transport Cooperatives;
- Use of Solar/Bio-gas as Energy; and
- Environment and You;

FOLLOW-UP GUIDELINES

It is suggested that national organisations in the Region carry out intensive follow-up activities. These can be in the form of a national workshop or a national situation study. The Study suggested the following guidelines:

- 01 Constitution of a national organising group consisting of representatives of government, national level cooperative federations and selected large-size production, processing and consumer cooperative organisations, including agencies responsible for cooperative education, training and extension programmes.
- 02 Define objectives and outline activities and methodology to achieve the set objectives.
- 03 Setting up a timetable for holding a national follow-up study or workshop to achieve the set objectives.

- 04 Appoint a coordinator and assign responsibilities and budget etc.
- 05 Identify target group, participants and invite them formally to participate in the follow-up activity. Identify also if any external collaboration/assistance is needed.
- 06 Invite technical situation papers from selected sectors who can contribute their experience.
- 07 Statement of policies and programmes. Suggest if any improvements needed.
- 08 Suggested contents of the situation papers:
 - General information on the sector
 - Problem areas faced by the sector
 - Causes of problem areas
 - Steps already taken/proposed to be undertaken to solve problems
 - Detailed information on action initiated
 - Problems encountered in solving problems
 - Suggested solutions/Action Plan
 - Specify assistance/collaboration needed
 - Identification of feasible projects
 - General recommendations
- 09 Develop a national plan of action and identify projects.
- 10 Prepare and issue national follow-up report to respective agencies for implementation.

On this Subject . . .

A Place to Live - Roles Cooperatives can Play in Protecting the Environment by Daman Prakash. US\$ 3 Rs. 20.00

Environment and Cooperatives - A Regional Study covering India, Indonesia, Japan, the Philippines and Thailand by G.C. Shrotriya and Daman Prakash. US\$ 25 Rs. 300.00

Sustaining Environment Through Cooperative Action
by Daman Prakash. US\$ 15 Rs. 100.00

Waste Resource Recycling by Cooperatives - Report of the Asian Regional Workshop. US\$ 15 Rs. 100.00

For copies and trade enquiries please contact :

The Publications Section
ICA DOMUS TRUST
"Bonow House", 43 Friends Colony (E)
New Delhi 110065. India

The International Cooperative Alliance is one of the oldest non-governmental international organisations. It is a world wide confederation of cooperative organisations of all types. Founded in London on 18th August 1895, the ICA has affiliates in 77 countries with 95 national and ten international level cooperative organisations as members serving over 648 million individual members at the primary level. The ICA is the only international organisation entirely and exclusively dedicated to the promotion of Cooperation in all parts of the world. The ICA holds Consultative Status of Category-I in the United Nations Economic and Social Council (UN/ECOSOC).

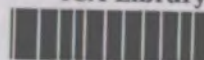
Besides the head office in Geneva, Switzerland, there are four regional offices viz. the Regional Office for Asia and the Pacific in New Delhi, India (established in 1960); the Regional Office for East, Central and Southern Africa at Moshi, Tanzania (established in 1968); the Regional Office for West Africa at Abidjan, Ivory Coast (established in 1979) and the Regional Office for Central America and the Caribbeans at San Jose, Costa Rica (established in 1989).

The ICA Regional Office for Asia and Pacific (ICA ROAP) serves 53 national level organisations from 18 countries representing nearly 440 million individual cooperators. These countries are : Afghanistan, Australia, Bangladesh, China, Fiji, India, Indonesia, Iran, Japan, Democratic Republic of Korea, Republic of Korea, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand and Vietnam.

Main activities of the ROAP include coordination of cooperative development efforts within the Region and promotion of exchanges and experiences; project identification formulation and evaluation; promotion of establishment and development of national cooperative apex organisations; and organisation of seminars and conferences on specific subjects including support for programmes aiming at the involvement of women and youth in cooperative activities.

Finances are derived from member subscriptions, own funds and assistance from donors for various activities carried out by the ICA.

ICA Library



ICA 00688