

PRIMARY HEALTH CARE

Role of Traditional Medicines

by Dr. Khalilur Rahman

Like other Asian countries, Bangladesh has also a long and rich tradition of indigenous medicines. With our rich biological resources and through biotechnological research, Traditional Medicines can play a major role in our national health care system in a scientific, cost-effective and planned way.

TRADITIONAL Medicines (TMs) are being used as an important basis of health care throughout the world since the primary days of the humankind. With the advent of science and technology, although modern medicines have been developed even in the poorer countries, large sections of the world population, in particular in the developing countries are still dependent on the traditional practitioners and medicines. According to WHO statistics, 80 per cent of the world population depends on TMs for basic health care. The situation of our country is no exception to this world wide trend. The importance of TMs has increased manifold in the recent time with the increase in public interest and expanded use of TMs in industrialised countries.

TMs have now also become commercially important for many countries. In addition to their clinical and pharmaceutical utilities, of late their commercial value is continuously growing all over the world. Surprisingly, although the scope of TMs is abundant in developing countries, the majority share of global market of TMs is owned unexpectedly by the developed countries. With the increased research in biotechnology, the biological resources are now becoming more and more important from commercial point of view. Many multinationals are now investing in biotechnological research and are trying to get their research products patented. In view of the commercial value of TMs in the future, many countries are now taking interest in having an international treaty and in making national legislation in the field of traditional and indigenous knowledge including TMs in order to protect their intellectual property rights (IPRs).

The major traditional systems of health care in the present world consists of ayurveda, traditional Chinese medicine (Chinese herbal medicine and acupuncture), homeopathy, unani, Japanese System — Kempo, Siddha, Tibetan System — Amchi, Bhutanes System — Dzangkhoo and others — bone setters, traditional healers, chiropractic, spiritual healers, folklore medicines etc.

Medicinal plants are widely used for pharmaceutical research and drug development. These are also extensively used as starting materials for the synthesis of drugs or for pharmacologically active compounds. Incidentally, necessary regulation on exploitation and exploration are not always existent for their conservation for the future need and use. International cooperation in this

regard is also non-existent. According to the UN Convention on Biological Diversity, the conservation and sustainable use of biological resources are of critical importance for meeting the food, health and other needs of the growing world population, for which access to and sharing of both genetic resources and technologies are essential.

WHO and TMs

WHO also considers TMs potentially important resources for primary health care. In 1978, the Declaration of Alma-Ata recommended, inter alia, the inclusion of proven traditional remedies into national drug policies and regulatory measures. In a resolution in 1989, the World Health Assembly urged the Member States to make a comprehensive evaluation of their traditional systems of medicines; to make a systematic inventory and assessment of both pre-clinical and clinical of the medicinal plants used by practitioners and by the population; to introduce measures for the regulation and control of medicinal plant products and for the establishment and maintenance of suitable standards and to identify those medicinal plants or remedies derived from them, which have a satisfactory efficacy-side-effect ratio and which should be included in national formularies or pharmacopoeias. Many Member States of WHO have been seeking cooperation of WHO in identifying safe and effective herbal medicines for use in their national health care systems.

WHO meanwhile drafted guidelines that contain basic criteria for the assessment of quality, safety and efficacy and important requirements for labelling and the packaging for consumers' information. These guidelines are intended to facilitate the work of regulatory authorities, scientific bodies and industry in the development, assessment and registration of herbal medicines, reflecting scientific results which could be the basis for future classification of herbal medicines and would also accommodate cross-cultural transfer of traditional herbal medicinal knowledge

between countries. The WHO Regional Offices have also undertaken a number of programmes on TMs. The WHO South East Asia Regional Office, which Bangladesh belongs to, has established a WHO collaborating centre in Democratic Republic of Korea in this field.

WIPO and TMs

TMs form part of traditional knowledge. Traditional knowledge as a whole and TMs in particular, have been recognised as commercially valued products. Bearing this in mind, the World Intellectual Property Organisation (WIPO) in its current Programme and Budget has given importance to the promotion of traditional and indigenous knowledge including TMs and to protect IPRs in these areas through international co-operation. It has already undertaken a number of initiatives to this effect. A WIPO team has visited countries that are rich in traditional knowledge. The team has already visited some Asian countries including Bangladesh. A two-member team from WIPO visited Bangladesh in last October in order to assess the extent of traditional knowledge in the country. They visited some places in Bangladesh and met government and non-government representatives and organisations involved in promoting traditional knowledge in the country. Having assessed the findings of their visits to various countries, WIPO would be putting forward its detailed programmes and activities in the field of traditional knowledge and TMs. Since, in-country standard on herbal medicines are not always accepted by all, in particular, in the developed countries, there is a need for establishing an International Body to coordinate standardisation of TMs.

WIPO and WHO are likely to cooperate with each other in the near future in setting international standard in the field of TMs. As a Member State of both the organisations, Bangladesh may consider providing support to their initiative in this regard and should seek assistance from them for the developmental aspect of TMs.

In last October, in collabora-

tion with the Government of India, WIPO organised a Regional Seminar for the Asian countries in New Delhi, India on the issue of protection of IPRs in the field of TMs. WHO also provided useful inputs for this seminar. In the near future, WIPO, at its own cost, would be organising a Regional Consultation for the Asian countries on this issue as a follow up to New Delhi seminar.

Bangladesh Setting in TMs

Like other Asian countries, Bangladesh has also a long and rich tradition of TMs. With our rich biological resources and through biotechnological research, TMs can play a major role in our national health care system in a scientific, cost-effective and planned way. Until today, TMs have been playing a major role in the health care system especially in the rural areas in our country. The largest section of our population still seeks treatment with TMs in view of the fact that they are free from side-effects, effective in chronic diseases, nature-based therapies and cheap.

There are, however, a number of constraints in the fields of TMs in our country. They include inadequate research and development expenditure by industry, lack of infrastructure, lack of public laboratories and negligible government support — both financial and infrastructural, lack of scientific data on safety and efficacy, insufficient standardisation, inadequate dissemination of knowledge about TMs across the country, lack of general manufacturing policy etc. Legislative controls in respect of medicinal plants have not yet been fully developed in respect of a structured control model. We need to define medicinal plants, herbs or products derived from them and to adopt necessary practical approaches to licensing, dispensing, manufacturing and trading to ensure their safety, quality and efficacy.

There is a necessity for formulating national policy on TMs in our country. The aim of such policy should be to develop regulatory and legal norms to ensure good practice and to extend primary health care cov-

erage. The policy should also make provisions for ensuring the authenticity, safety and efficacy of these medicines. National legislation should also focus on issues related to IPRs — patents, trademarks, biodiversity and biopiracy; export etc. It may also contain strategies to develop TMs in such a way that it can contribute to national economy. There is also an urgency for effective and meaningful cooperation among academia, industry and Government in the field of TMs.

At international level, we need to cooperate with organisations like WIPO and WHO in order to get assistance from them to develop our TMs system. WIPO can also help us in making appropriate national legislation in the field of TMs. We may also cooperate with WIPO to develop international treaty to protect IPRs in the fields of traditional and indigenous knowledge — documented, undocumented, oral traditions, folklore practices and others. There is a need for codifying both documented and undocumented information in all these areas and making it available through on line data base. Concerned government organisation should get in touch with the WIPO team that visited Bangladesh last October and should try to get maximum assistance from them in tapping, developing and promoting our traditional and indigenous knowledge including TMs.

Bangladesh should take active interest in activities under various international organisations like WIPO, WHO and WTO, in the field of TMs. Suitable representatives should be sent to meetings on this subject so that they can effectively contribute to the deliberations of those meetings and can recommend to the Government to initiate appropriate measures in the country accordingly.

In WTO, we may work closely with Asian countries in invoking the clause of Geographical Indications of the TRIPS Agreement in the cases of TMs. This issue can be raised in the next round of negotiations on the revision of the TRIPS Agreement that is due to take place next year.

Since most herbal medicines need to be studied scientifically, as a Member State we can seek cooperation from WHO in identifying safe and effective herbal medicines for use in our national health care system. We may also ask WHO to convert one of our national institutes of TMs like WHO Collaborative Centre in DPRK.

The writer is Counsellor in the Bangladesh Permanent Mission, Geneva. Views expressed in this article DO NOT reflect any government's position.

Protecting our Oceans

by Sarwat Chowdhury

Oceanic pollution caused by human actions is essentially a 20th century problem. An estimated 80 per cent of marine pollution originates from human activities on land. Over the past few decades, several classes of pollutants have been identified.



AS we draw close to the end of 1998, the UN "International Year of the Ocean," the challenge of reconciling the finite resources of the oceans faced by the unlimited human demands still remains to be answered. More than 70 per cent of the surface of the earth is covered by water. The marine environment and its life-giving resources are vital in sustaining all life on this planet. While John Glenn's space exploration earns him the recognition of the oldest ever person to be on the space, beneath our own oceans there remains some of the greatest mysteries still awaiting discovery. In some ways, it seems logical to replace the word "space" from the famous Star Trek phrase to call our "oceans" as "the unknown frontier."

Pollution in the Ocean: Oceanic pollution caused by human actions is essentially a 20th century problem. An estimated 80 per cent of marine pollution originates from human activities on land. Over the past few decades, several classes of pollutants have been identified. These include sewage, nutrients and persistent organic pollutants (POPs).

The problem of sewage mainly relates to public health issues. However, compared to sewage, nutrients from agricultural fertilizers can more often cause eutrophication (a process in which the increase of mineral or organic nutrients reduce dissolved oxygen, thereby creating an environment that favors plants over animal life) in enclosed ocean basins or seas. The third source of pollution, POPs are persistent because they remain and accumulate in the ocean environment, and are available through recycling of biological systems. Example of persistent organic pollutants include pesticides and plastics.

Various human induced events give rise to the pollution of the marine environment. While we consider the effects of air pollution in our major cities, the oceans are just as affected by car exhaust, wood burning, industrial emissions, sprayed herbicides, pesticides etc. These sources add contaminants to the air, and the contaminants fall back to the earth in the form of rain. Once the air-borne pollutants enter the plankton, and eventually enter the ocean food chains.

Another major source of pollution is oil leaks. The infamous Exxon Valdez disaster reportedly spilled 42 million liters of oil. However, the Southern New Agency Environment Project claims that, every year in Canada alone, 300 million liters of motor oil disappears into the environment. Roughly, this is equivalent to more than seven Exxon Valdez accidents each year. The fact is oil spills, or engine leakage from automobiles are most often washed down storm drains, and ultimately flow out to the ocean. The same is true for boats and ships that directly spill oil in the marine environment. Therefore, envi-

highly visible events like accidental spills from large oil tankers get more attention, the operational oil discharges from ocean going vessels remain a greater threat to the marine life.

More on Plastics: For everyday usage, plastic in the form of containers, wrappers etc., has become an item of comfort. If not necessary, in the US, unless specifically requested, the bags that are used to carry groceries are also made of plastic. There are other uses of plastic which can change people's lives. For example, plastic can be a very useful input for reconstructive surgery, for syringes used for medicinal purposes, even as protective helmets.

However, the same plastic can be deadly for marine life forms. Plastic pellets of the small hard pieces of plastic from which plastic products are made look like fish eggs to sea birds. Drifting plastic materials including plastic nets can entangle birds, fish, and mammals. Before the use of plastic became very prevalent, when the fishermen dumped their trash overboard or lost a net, it consisted of materials like metal, cloth or paper, which would sink to the bottom or biodegrade quickly. Plastic, on the other hand, can remain floating on the surface, the same place where real food sources lie-for as long as 400 years.

Durability and strength — the characteristics that make plastic so attractive to use, are the same ones that make it very dangerous in the ocean. Plastic's devastating effect on marine life especially on mammals first became evident in the late 1970s, when US scientists in the National Marine Mammal Laboratory concluded that plastic entanglement was killing up to 40,000 seals each year. It was found that sea turtles can mistake styrofoam particles and plastic pellets as genuine sea food.

After they eat such foreign elements, the plastic can clog their intestines, and the turtles starve to death. Sea birds are also prone to the same mistake, and studies have shown sea birds feeding plastic pellets to their young. In fact, small plastic particles have been found in the stomachs of 63 of the earth's approximately 250 seabird species.

The United States is of course a major actor in this type of oceanic pollution. In December 1988, the Marine Plastic Pollution Research and Control Act (MARPOL) went into effect making it illegal for any US vessel or land-based operation to dispose of plastics in the ocean. Understandably, this law is difficult to enforce in the open ocean. While one may visualize the open ocean to be large enough to disperse all the debris including plastic, the reality is, plastic remains and runs in ocean currents. Recently in Bangladesh, there seems to be greater awareness about the adverse effects of indiscriminate use of plastic.

It would be very prudent if we make it a habit to pick up plastic, and not litter it,

thereby preventing it from getting into our waterways. For our greater benefit, we can also consciously practice the habit of reduce, reuse and recycle, and use cloth or jute bags for shopping etc.

Marine Pollution in Coastal Areas: The expanding human population naturally encroaches upon the marine environment. It is estimated that half of the world's human population, live less than 6 kilometers from the sea. Estuaries and wetlands, which are critical habitats for many marine organisms, are rapidly being lost to housing and industrial developments. Recent studies point out that the areas most impacted by pollution are the shallow coastal zones and enclosed areas.

Unfortunately, these near shore zones host a great number of marine resources that are of primary concern to us. The higher productivity of the continental shelf regions make them the major focus of harvesting seafood.

Pollution protection is also important from health and aesthetic considerations. Recreational usage of the beaches and coastal areas necessarily require that the coastal areas remain free from pollutants.

Economic constraints in developing countries often impede the implementation of plans to make the coastal areas safe and healthy. However, the absence of sustainable and healthy management of the coastal areas also mean loss of potential revenues that could be earned from greater number of tourists both from home and abroad.

In Bangladesh, the beaches around Cox's Bazaar are a valuable resource both from recreational (therefore economic) and ecological point of view. The beach near Patenga and Cox's Bazaar can be managed in a much more efficient and ecologically sustainable manner. The Inani beach, south of Cox's Bazaar is thought to be the longest in the world. It is imperative that we recognize the significance of the more than 112 km long beach, and manage our unique resource accordingly.

Concluding Thoughts: The vision of healthy sustainable communities are embedded in a higher quality of life where human beings get more exercise, are in close contact with the nature, and have more time to enjoy the simple pleasures of life. Such healthy sustainable communities also promote healthier natural communities — such as the complex web of life in the ocean.

Innumerable marine life forms including fishes, whales, sea turtles, snail, various other invertebrates, algae, bacteria etc., continue to provide the support essential for maintaining the ocean ecosystem and directly or indirectly nourishes us — the human beings. It is only fair that we maintain their habitat, which will ensure our viability as well. The writer is a Ph.D. candidate in environmental policy at University of Maryland. This article is the first of a two piece write-up on ocean resources.

Post-flood Rehabilitation: Voice from the Bottom

by Hasna Hena

Under the emergency situation the special assistance like VGF should be allocated according to the number of affected people in a particular area.

IN the post flood situation how the poor people in rural areas are managing their lives? What is the situation in regards to the selection of the beneficiaries for Vulnerable Group Feeding (VGF) programme? To what extent the farmers are being helped through agricultural loan? To address all these questions I recently had an opportunity to visit different areas under Mymensingh, Jamalpur, Sherpur, Kishoreganj and Netrakona districts as a member of a Crop and Food related mission. Poor people at the village, Union Parishad members and Chairmen, local bank officials, Thana Nirbahi Officers, NGO officials, officials of the Directorate of Relief and Rehabilitation and Department of Agricultural Extension were met and discussed. My observations and experiences are as follow:

Living Condition

The poor who used to live on daily labour in agricultural field are suffering from hunger. They have lost their source of income due to flood. The marginal farmers, the landless, the day labourers are living on loan from the money lenders at the rate of Tk 12 to 20 interest per month. They are eating less meal and less amount than before. Khaleq of Mymensingh for his living was forced to sale his cow for Tk 2300 which he bought at Tk 3200 before the flood. Shirina of Jamalpur took loan of one mound paddy at Tk 300/- which she is to return at the rate of Tk 500/-, Hamida and Rahela of Sherpur took loan from an NGO. They had to pay their instalment even in their most distressed situation during the flood. Hamida said, "The NGO people came by boat and said, they will not leave our home until we pay. They did so, sat for the whole day. There was no quarrel but was such a torture. We had no way but to pay." Khodeja took loan from another NGO bank. The amount of interest itself has become Tk 1400/-, She says, "I will take another loan to return the previous one and interest. This is how we are tied with loan one after another."

In some parts of Jamalpur people are eating cassava as substitute of rice or wheat. One kg of cassava costs Tk 6/- which

is much cheaper than the price of rice or wheat. But the season for cassava will be over in one month's time. Some people are selling their trees to survive. Now they are paying more than before for a kg of rice or wheat flour. The field situation is such that only 5 per cent labour gets chance to work for a very cheap wage rate. For a whole day the labour wage is only Tk 20-25/- which was Tk 40-50/- previously.

In some areas of the districts visited test relief work has started in a very small scale. Food for Works activities seem to start at the end of November.

Selection of VGF Beneficiaries

In all the districts visited the selection and finalisation of the VGF lists was observed to be very slow. People in different areas complained about favouritism and partiality in selection of VGF beneficiaries. Union VGF committee is primarily responsible to prepare the list of deserving people. All the members of the VGD committee are identified except two. These two are named as 'local elite', who are to be selected according to the advice of the local MP. In most cases these two members are politically motivated.

All the thanas in a district and all the unions under a particular thana have not been flood affected equally, while the number of VGF cards are equal (1000) for all the unions all the thanas. This indiscriminate or equalisation is found as unjust and illogical. Again the government has given an instruction to distribute at least 10 per cent cards in each ward. This was not also found justified. In some cases it was found that a quota system has been introduced by the UP VGF committee. The 1000 cards are divided among the UP chairman and members as: Chairman — 250, each female member 70, and each male member 60. No satisfactory justification of this distribution was available. Upon a query on the 250 cards a UP chairman replied "There is a give and take rela-

tionship." If so, then one can easily draw the conclusion that this mechanism has been adopted to create a power base.

A big gap has been observed between the poor and their elected representative, the ward member. Complaints were made in different areas as "the member never comes to see our situation. We cannot also reach him". Maleka of Charpakkhimari union of Sherpur blocked our way, burst into tears and said "I am so distressed, went to UP many times to beg a card but every time I had to turn back. The chairman and members are always surrounded by the touts and middle men."

The number of VGF cards in general seems to be enough but the problem is lying with the selection of area and selection of people. The most deserving people may remain outside the list and deprived. The amount of ration (16 kg) for a family with five members on an average seemed to be very little. Most people opined that the amount should be at least 30 kg.

State of Cultivation

The present crop situation varies from area to area. In some areas farmers planted Ropa Aman consecutively for three times but every time it was washed away by flush flood. Now there is no time for Ropa. More wheat cultivation with high yield is expected this year, since the moisture in soil will continue for long time. In some areas people are more interested to cultivate wheat than rice because of the frequent power failure. Rice cultivation requires regular irrigation, while it is not needed in case of wheat. The farmers are more interested 'Kanchan' variety of wheat because of its high yield. Higher production of rice and of other crops are expected, if the climate and other conditions go in favour.

In some areas the paddy fields were observed as affected by a kind of insects called 'Leaf Miner'. This has always been minor but due to warm weather and lack of food for insects this year this is becoming a major

hazard," one senior officer of the agricultural department says. The agriculture department has required input like spray machine to help the farmers under all the unions of a thana.

In the agriculture sector most of the assistance for post-flood rehabilitation so far has been given in cash. But now onward it is learned to be given in kind for the convenience of the farmers. The government has been able to provide agricultural assistance to only 5-10 per cent of the flood affected farmers. The assistance provided to a farmer can cover only 33 decimals of land. The UP chairman and political leaders want to cover more people in number. Therefore, under pressure, sometimes the input to an individual farmer becomes smaller in amount.

Agriculture Rehabilitation Loan

The agriculture loan is allocated bank wise and each bank is responsible for some unions. The allocated amount of loan money seemed to be negligible according to the requirement of the farmers. One branch manager of Agriculture Bank in Sherpur showed a resolution taken at the thana level. The resolution decided to give less amount (Tk 2-3 thousand each) to cover more people in number.

With an intention of realization in mind bank is more interested to give loan to the defaulters (for loan taken before '97-'98). It was observed in one bank branch in Netrakona that half of the loan receivers were defaulters.

There is a big gap between loan amount sanctioned in paper and the actual amount the farmers receive in hand. For an example, a farmer with an outstanding loan of Tk 5000/- is sanctioned a new loan of Tk 7000/- meaning that after deduction of the previous amount only Tk 2000/- will be disbursed which is negligible for the intended activities. It seemed that, in the process, the real needy people who are flood affected and not defaulters are being deprived and the purpose

of the agriculture rehabilitation loan is not being served.

The farmers are also suffering from the problem related to paper requirement. They are not clear exactly what is needed. Some complained that they are not getting attention and co-operation from the bank officials. The middlemen seemed to play a vital role in receipt of loan by incumbents.

Rokeya of Netrakona owns land, fulfilled the bank's paper requirement but failed to receive loan since she is a woman. Her case was checked with the respective bank. The manager said, "I discourage women, they are not farmers." Is the government cooperation with women are not farmers? Do you have any such paper? There was obviously no response. However he agreed that now onward he will not refuse women.

In one area, where there no loan has been distributed, upon pressure from the UP chairman the manager of the respective bank has written the UP chairman to form a committee and prepare a list of people deserving loan. The question is: is there any official guideline from the lead bank to give such instruction? The local people has raised their doubt about the fairness of such list.

Suggestions

Under the emergency situation the special assistance like VGF should be allocated according to the number of affected people in a particular area.

Each and every member of the assistance committee at all levels should be well identified. In case of post disaster rehabilitation credit from the bank, special attention should be given so that the intended beneficiaries understand terms, conditions and the paper requirement in a uniform way.

There should be objective coordination between government and NGO. The government in general and the departmental officer at thana level specifically, should establish a hold on the activities of NGOs. The NGOs' role should be complementary to the government.

To avoid confusion and deprivation it should be made clear that, no local instruction/arrangement should be allowed.

The writer is a Senior Project Officer of World Food Programme.

Garfield



by Jim Davis

James Bond



Focus on Five-in-one Save Taj

India and Russia plan to enhance scientific cooperation with focus on healthcare sciences, biotechnology and ocean development. Both the countries have stressed the need to set up a technology information centre in order to commercialise technologies. VS Ramamirthu, secretary of the Department of Science and Technology (DST), says that it is essential to bring in technology to the market. Indian scientists and their counterparts from Russia have decided to evolve joint projects in the areas of health, biotechnology and ocean engineering.

Australian scientists have developed a revolutionary vaccine for babies that can prevent whooping cough, diphtheria and tetanus, meningitis and hepatitis B. It may also stop other diseases covered by the traditional triple antigen vaccine. The drug is poised to take on the huge world immunisation market after successful clinical trials in Melbourne, Australia. The vaccine, Pentavac, could replace the three-in-one shots that have been used to immunise babies in Victoria for almost half-a-century. "It's a very exciting development," said a spokesperson for the Health Minister, Michael Woodridge.

SHV energy group, a Netherlands-based company, will supply 100 per cent propane-based low pressure gas fuel for industrial use in the Taj Trapezium area. This will help reduce pollution by industries near the Taj. The Supreme Court had recently directed the Uttar Pradesh government to close down all industries in this area or relocate them in other areas in order to save the Taj from toxic pollutants. SHV has signed agreements with several out of 150 industries around the Taj Mahal. Officials in the company said that the supply of propane will ensure minimum pollution in the area.

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