

FOCUS

The Winged Menace

by M A Hasib

THREE tons of human blood is sucked from the veins of the inhabitants of Dhaka city every month by mosquitoes, during the peak period of their population density. A single mosquito, when full fed, in one night, can suck in one and a half times its body weight of human blood. They have the very aggressive habit of piercing the proboscis (mouth parts) into a human body whenever the chance occurs! They swarm around the mosquito net and struggle throughout the night to obtain access inside. As a result, it is almost impossible to find even a new mosquito net absolutely free of mosquitoes by morning. They have developed the habit of attacking during the daytime too.

The blood thirsty female mosquito, also injects, through salivary fluid, poisonous and disease carrying matter into the human bloodstream with the consequent development of various ailments.

Apart from disturbances in normal living, various mosquito control measures hitherto practiced have contributed to environmental pollution and continued heavy cost involvements. Therefore, the mosquito menace can be reckoned as one of our serious national problems, and the situation surely deserves a strategic approach with an evaluation of the present system of operations against mosquitoes.

Present Approach

Chemical control of mosquitoes has reached a state of crisis. Toxic insecticides have been applied through hand and power sprayers, and even the aircraft way. The result has been immediate lowering of the population of mosquitoes to a tolerable level, and a complacency on the issue. But unfortunately subsequent development of a huge increase in the mosquito population, to an unprecedented strength, frustrated all hopes of relief from the menace. How did it happen?

A continued use of toxic insecticides that seriously damaged the existence of a host of biotic factors, responsible for reducing the mosquito population in the natural way, and least regard

to do away with mosquito breeding centres, probably have contributed to this result.

Any stagnant water area serves as a fine breeding ground for producing billions of mosquitoes. While keeping all these kinds of probable breeding grounds intact, any effort at controlling mosquitoes by the use of insecticides only result in a temporary relief against a continued cost of control measures and confrontation with a host of other adverse factors. The process, therefore, deserves reappraisal in the light of latest approaches in pest control.

General Practice

As long as we are constrained to undertake chemical means in solving this serious problem, steps should be taken (a) to stop all kinds of activities leading to formation of stagnant water conditions, (b) to keep all drainage systems in running conditions, (c) to culture fish in all tanks and ponds while maintaining them free from water hyacinth, (d) to spray any remaining water areas with fuel oil spray, through hand sprayers. This oil is absolutely safe, a non poisonous, non-polluting product, and quite effective in killing mosquito larvae by smothering them while the oil film remains invisible. It may be permissible to spray a less toxic insecticide in oil emulsion under other acute circumstances when killing of both adult and larvae of mosquitoes are concerned.

Accomplishment of all these steps desperately needs an efficient management skill. It is extremely difficult to reach this stage in the face of a general public mentality to keep all kinds of environment dirty and filthy. Even the owner of a multistoried building gives least care to maintaining his drainage system, and areas around, clean and free from stagnant water. But deployment of army personnel for this purpose, could probably achieve success as was done in a similar situation to wipe out lo-

cust menace in the desert regions of some countries. On pain of punitive punishment, such a clean environmental condition could be maintained.

A New Approach

This new approach in pest control developed by the Genetics Department of the Johannes Gutenberg University, Mainz, W Germany, headed by Prof Hannes Laven, is known as genetic population-reducing systems, and was reached as a "by-product" of fundamental research on mosquito. Mosquitoes of a particular species from different regions were crossed with each other giving one of the three results - offspring was not decreased in either cross (female A/male B, female B/male A); offspring resulted in one cross only, no offspring resulted from either cross.

Studies showed that even the non-productive crosses involved normal copulation and fertilization of female - the sperms penetrated the eggs correctly but the foreign sperms then became blocked. Factors in the egg plasma prevented union between the sperms and the

ovum nuclei. This research "by-product" was the idea to utilize this incompatibility as a specific genetic system leading to suppression of offspring and in this way to achieve control of the species of mosquito.

All that was required, was to release males from a particular region in another region where they are incapable of producing offspring with the natural females as a result of blocking of sperm. The males simply had to be bred and released in suitable numbers. Using special breeding methods, it was even possible to make the incompatible males outlive the natural males in their copulation capacity.

This technique was successfully operated against mosquito in a village near the Burmese capital of Rangoon in the year 1967 and at the end of the twelfth week none of the eggs hatched. Thus the species of mosquito was completely eradicated in the village concerned.

As this phenomenon of incompatibility only occurs sporadically in mosquitoes, another genetic system ultimately having the same effect

as incompatibility, could be produced intentionally and specifically in mosquitoes.

Semisterility System

It has been long known that a certain type of absence of offspring is hereditary. Strains subject to this often produce only about half the normal number of offspring. This phenomenon was termed semisterility and was observed in numerous plant and animal species. The absence of offspring was found due to chromosome modification called translocation.

Translocations and the hereditary sterility associated with it, could be produced as desired. X-ray irradiation of male mosquitoes causes translocation, giving percentages of semisterility, ranging from 10 to 92 per cent. Hence, any desired degree of loss of offspring can be imposed on a field population by releasing animals of the corresponding degree of semisterility. Any translocation occurring is inherited by the offspring and the translocation carriers were completely normal animals. Suitable breeding methods can confer on them a far greater copulation capacity than that of

field animals.

For a verification of efficiency of this translocation system, field trials were carried out on a mosquito population in France and by the end of the second month of the release of translocation capacity than that of field animals.

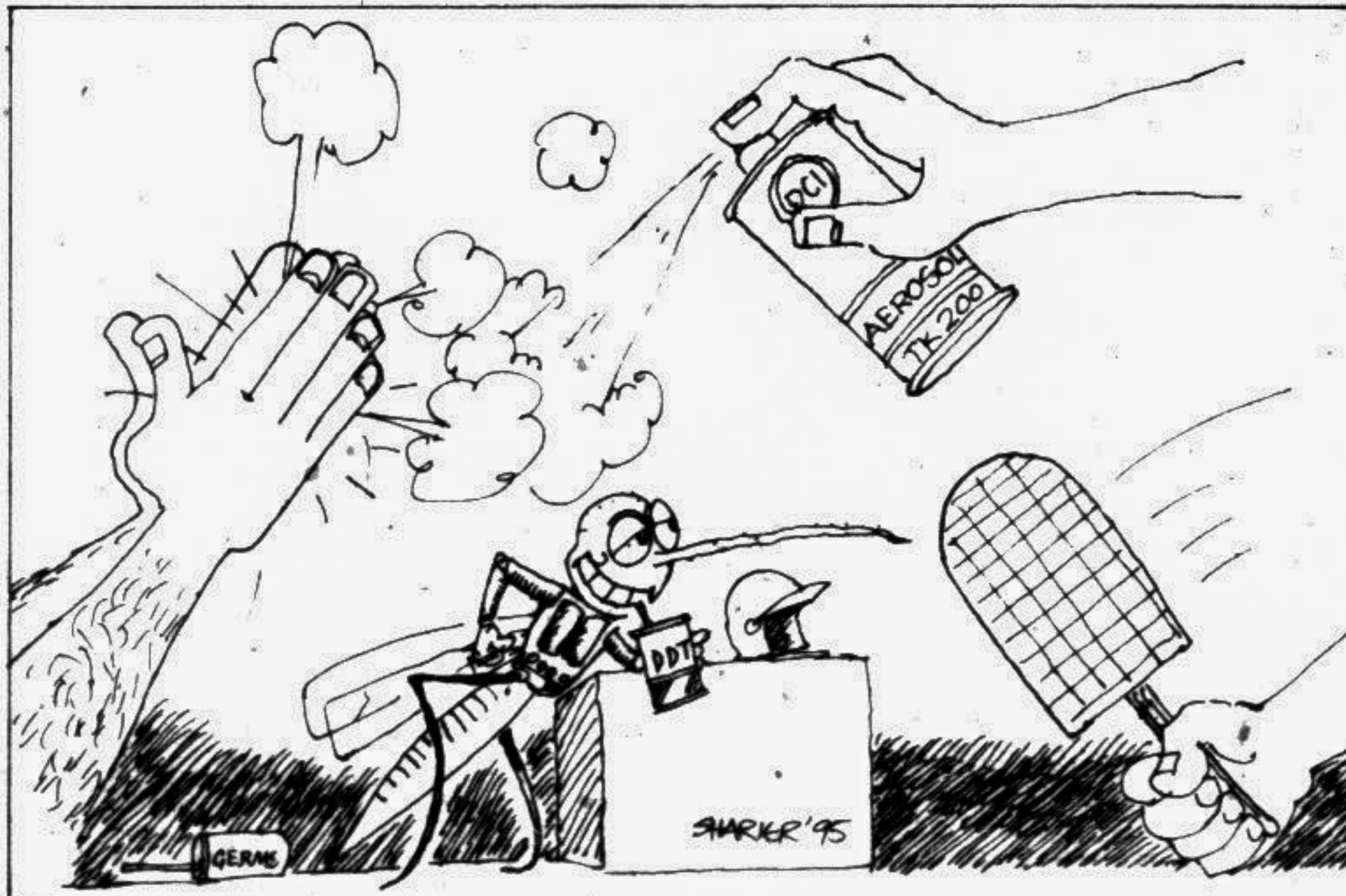
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Comparative Result

Mosquitoes can develop resistance to chemicals, but this is not the case with genetic systems which are incorporated in the organism itself and do not affect the carrier of the system. Again the genetic systems are absolutely specific; they are only effective against the target species. No other species is affected as a direct consequence of their application and the question of environment pollution just does not arise. They can be used with a minimum of expense and without the need for trained personnel. A group of WHO experts calculated the comparative cost of chemicals and incompatibility control of the mosquitoes in the Burmese capital.

Comparison showed clearly in favour of the genetic system. A single application of a chemical would cost 144,000 dollars and would have to be repeated, in full, every two weeks, ultimately reducing the field population to about 5% of its original size. With the incompatibility system, on the other hand, an expenditure of only 2,700 dollars would completely eradicate the species of mosquitoes concerned in three months. The cost would be far lower still with the new incompatibility plus semisterility system. These systems have since been developed still further.

Could we not deal with our mosquito problem in the chemical way outlined, as an interim measure and take advantage of the genetic systems to wipe out the menace? These systems can also be fruitfully utilized against numerous crop pest problems in Bangladesh.



Women's 20 km Long Banner of Unity

by Kathy Wilhelm

NINE months of weaving and stitching are at an end.

On Wednesday, women were assembling hundreds of pieces of cloth from around the world into a massive banner they say could stretch 20 kilometers (12 miles).

They plan to lay it atop China's Great Wall next week in a display of women's unity during two UN-backed women's conferences that have drawn a total of more than 30,000 delegates.

"We wanted to have something that showed the concerns of each woman of each country and the unity of women," said Sochua Leiper, founder of a leading Cambodian women's group. She has been the driving force behind the banner project, called Women Weaving the World Together.

"We were thinking of a thread linking us together," she said. "In all corners of the world weaving is done by women."

Leiper said the idea for the banner came up at a meeting of the Asia-Pacific Non-Governmental Organizations Working Group. She took on the task of organizing it because "I wanted Cambodia back on the world map."

"We have done a tremendous thing. Women Weaving the World Together pushed us (Cambodians) to organize a women's network for peace and development," she said. "We went to mountainous

areas and we crossed the guerrilla zones to say to women, there is a women's conference, what do you want to say? There was a tremendous response."

Leiper said 1,000 Cambodian women, many from remote areas of the country still wracked by guerrilla insurgency gathered in the capital of Phnom Penh last November to assemble a one-kilometer-long Cambodian banner (three-fifths of a mile long).

Women from around the world responded with equal enthusiasm. More than 120 organizations and uncounted individual women have made pieces to add to the banner, Leiper said.

Dozens were draped over a low brick wall at the site of the Non-Governmental Forum on Women. They ranged from hand-dyed cotton spans to finely embroidered tapestries and heavier hemp-and-wool images of women.

Some were produced by disabled women, others by elderly or minority groups. Professional and first-time weavers took part.

"The idea is most of them will not get here in person," said Leiper. "We are helping to put out their message."

Li Quifang of the Chinese government-sponsored Women's Federation helped hang one of several Chinese contributions from a forum tent.

"It embodies the spirit of participation," she said.

From Legal Rights to Lesbian Flirtation Techniques

GRASS-ROOTS groups from around the world, at the biggest-ever meeting on women, are seeking to chart a path for the next decade with workshops and debates ranging from legal rights and discrimination to lesbian flirtation techniques.

Irene Santiago, executive director of the Fourth World Women's Conference's Non-Governmental Organisation (NGO) Forum, officially opened the 10-day event for around 20,000 participants, last Wednesday, declaring, "come, let us gather."

Around 30,000 people applied to attend the forum, which organisers and delegates hope will play a key role in forming world opinion on women's issues, as well as promoting contacts and projects at community level.

"This is a long-awaited day, a milestone in the continuing struggle for women's liberation, empowerment, dignity and equality, a moment to affirm that the power, rights and contributions of women can no longer be denied," said Gertrude Mongella, the conference's secretary-general, at the ceremony.

Lobbying by NGOs from around the world has played a key role in past UN conferences - on issues such as the environment, population, human rights and social development - in influencing the outcome of the official event.

NGO delegates labelled the Beijing event as the most crucial of all conferences that have taken place to date, with problems facing women cutting across the range of issues tackled in previous meetings.

But they also acknowledged that their lobbying job here would be particularly tough, with a number of official delegations - namely from the Vatican and Muslim nations - pushing to roll back some of the gains made at earlier conferences.

"A lot of the language that appeared in the Vienna document (on human rights) is now in brackets in the draft document, the Platform for Action, (to be discussed at the 11-day inter-governmental conference opening Monday)," said one NGO delegate.

Some 25 to 30 per cent of the draft remains in brackets, with either content or wording still in dispute, said Anita Nayar, Women's Environment and Development Organisation programme coordinator, who stressed, however, that the document contained elements that would be "valuable" if implemented.

Another NGO participant from Europe expressed concern that problems could be created by China's April decision to shift the NGO

Forum site from central Beijing to Huairou, a rural town north of the capital that is an hour's drive away from the inter-governmental conference venue.

"It's difficult to coordinate between the two sites... I'm afraid this could limit the power of the Forum to affect what happens" in the official conference and for government representatives to "hear the NGOs," only a small proportion of which have accreditation for both events, she said.

But promoting women's rights, rather than logistical and security problems, were at the forefront of the minds of delegates of all cultures as they prepared for their first full day of workshops and meetings last Tuesday.

The workshops include free-wheeling discussions on mainstream issues, such as violence against women, wage discrimination and women's legal status.

But there are also many novel ones, addressing minority problems and new forms of self-expression, among them, "lesbian flirtation techniques," "art- and meditation techniques for self-discovery through fantasy" and "repositioning the body in western culture."

Not even the O J Simpson trial is left out, with a workshop on how the media's coverage of the former US football star's murder trail may be tinged with prejudice about black males. —AFP

Women's Conference Condemned as Anti-Islamic

AN Egyptian lawyer has filed suit against President Hosni Mubarak to block his country's participation in the UN conference on women in Beijing.

"This conference calls for free sex and is against religious values and traditions," Abdel Halim Mandur wrote in his suit to a Cairo administrative court.

"Moreover, the women who travelled to it travelled without a muhrim, a brother, husband or father required as a male companion by Islamic law, Mandur said.

He filed his suit against Mubarak, as well as the Prime Minister, the heads of the two Houses of Parliament, and several ministers. The court will begin hearing the case in a few days, legal sources said.

Last week, the Imam of Al-Azhar, Sunni Islam's highest institution, slammed the conference as anti-religious.

The conference aims to wipe out the differences between the sexes and leave only one sex," Sheikh Gad Al-Haq Ali Gad Al-Haq said.

Do We Know Enough about Ourselves?

by Raffat Binte Rashid

WHAT are we so ashamed of that we have to shut ourselves totally, from knowing anything about Bangladesh and her past?

Whatever that has helped this impression of ours, is actually nothing but a few biased opinions that our parents discuss at the dinner table or friends express at a football match or a party. Thus we form our own vision of Bangladesh: a third world country with a bleak future or a motherland who needs us to rescue her from the webs of her distorted history and illiterate masses.

Be it the English medium students or Bangla medium students we are all ignorant of real facts and find numerous excuses of not knowing the real thing. Recently a conscious group of English medium school students began a campaign of raising teenager awareness about Bangladesh and formed an association named Teenage Awareness Group (TAG).

TAG held a symposium on 'Knowing About Bangladesh:

role of English medium schools' at the Jatiya Press Club sponsored by The Daily Star, recently.

Basic questions like who is the father of the nation, are we Bangladeshi or Bengali were asked to be answered. It is not that these youths don't have the answers. They do but their answers are not always the same. "If after 24 years of independence our children need to ask these questions I think it is a shame and begs a bigger question why the need to ask? asked Mahfuz Anam, editor The Daily Star.

Emphasising the important step initiated by TAG, he continues to point out that our history was always a convenient weapon of our politicians; whatever regime in power. The task still remains open to set an ideal, have a consensus on our history and time will only confuse us further. Anam says, adding that these children should now be curious enough to suggest the appropriate solution.

The problem of not having

enough knowledge about Bangladesh, her rich culture and heritage and then of course the lack of not having enough materials or sources to know about her geography, history and economy has led these promising youths to revitalize, reenergize our older generation, by asking them again.

"Don't stop asking us until you get the answer, gather books, information irrespective of ideology and come to your own conclusion and practice that," says a teacher of South Breeze.

"English medium students are not Martian but very much the product of this society. Yes there is a knowledge gap amongst these students but there are ways to rectify them as well," says Aly Zaker an eminent actor and a parent of children attending an English medium school.

Stressing that the focal point should be on introducing something about our country's history and geography in these schools' curricu-

lum, something beyond their O-A level syllabus. Zaker pointed out "Our intellectual society would only be too willing to sort these out."

Bangladesh has a distinct culture. Though we were a part of the Bharat Barsha, we had a distinct self. To be a good student you have to know your identity. Prof Innaas Ali, eminent educationist pointed out at the symposium, adding to Zaker's opinion that these children cannot be ignorant about their origin.

"We, as teachers working in such schools, feel the need of cultural awareness among our students very much" says Ms Sitara, English teacher of Scholastica. "Whenever we ask them to write an article they pick up names like Tom or Harry. An essay on survival ends up with an account on a desert in Africa but never on a rickshaw-puller," she comments.

The reasons for these, as she thinks is for the fact their answer paper, is

checked by foreigners and to impress the teachers they take up their culture as well.

"What these kids don't know is that while going to the land of their dreams the visa officer only sees how deeply he is rooted to his culture, because then he cannot get away from it. Your results or 1-20s matter little," says Zaker.

You don't have to know about foreign culture but your own only. They appreciate your knowledge of your culture than theirs. Moreover the exchange of information adds only to your self esteem in foreign universities, Zaker elaborates.

You must be very clear about your own identity and at the same time must know English to be a part of this modern competitive world. Anam points out. Adding that English medium going students rather their parents went through many phases. During the pre-Bangladesh days admission to such schools were only the monopoly of the elites. After independence it became a

populist phase followed by snobbery.

"As a result of these phases, we are poorer as a nation. Now can we go for realism - that is to create a balance between all, Anam stresses.

This ignorance on the part of the parents, teacher, students and the society is a micro problem controlled by a macro phenomenon.

But things could start rolling. Here the role of family and teachers is very crucial. Books are not available at present, but teachers, principals could meet to work out a curriculum that would include Bengali rhythms, basic history, geography, even visuals or folk tales would help in introducing a Bengali friendly environment in such schools and at home.

TAG has started an important historic journey, these teenagers' problem is definitely a national problem too. At all levels people should try to solve it by giving concerted suggestions to this issue.

Unity-in-Diversity Bid for the Tourist Dollar

A group of African countries are getting together to increase their share of world tourism. A regional organisation has been established, reports Gemini News Service, but there are many difficulties ahead.

by Elias Nyakutemba, Lusaka

AFTER years of talk countries in east and southern African are taking the first steps towards cooperation in tourism - despite fears that South Africa will get the lion's share of benefits.

"We have held several high-level Indabas (meetings), all very fruitful and cordial," says Zambian Tourism Minister General Criston Tembo. "From Kenya, Uganda and Tanzania to Zambia, Namibia and South Africa, the resolve is that we need, not want, a single regional tourism body now, to coordinate and promote tourism. We have no doubt that it will work and help our economies to grow."

After the first meeting of the Regional Tourism Council for East and Southern Africa, in Swaziland, the new organisation's executive will formulate a policy and make rec-

ommendations.

Tembo is confident. "I am sure that won't be a problem considering so much ground has already been covered."

Buoyed by tourism success in South Africa, Kenya and Zimbabwe, and confident that the era of liberation struggles and civil wars is over, governments and tourist operators believe the time is ripe for a new approach.

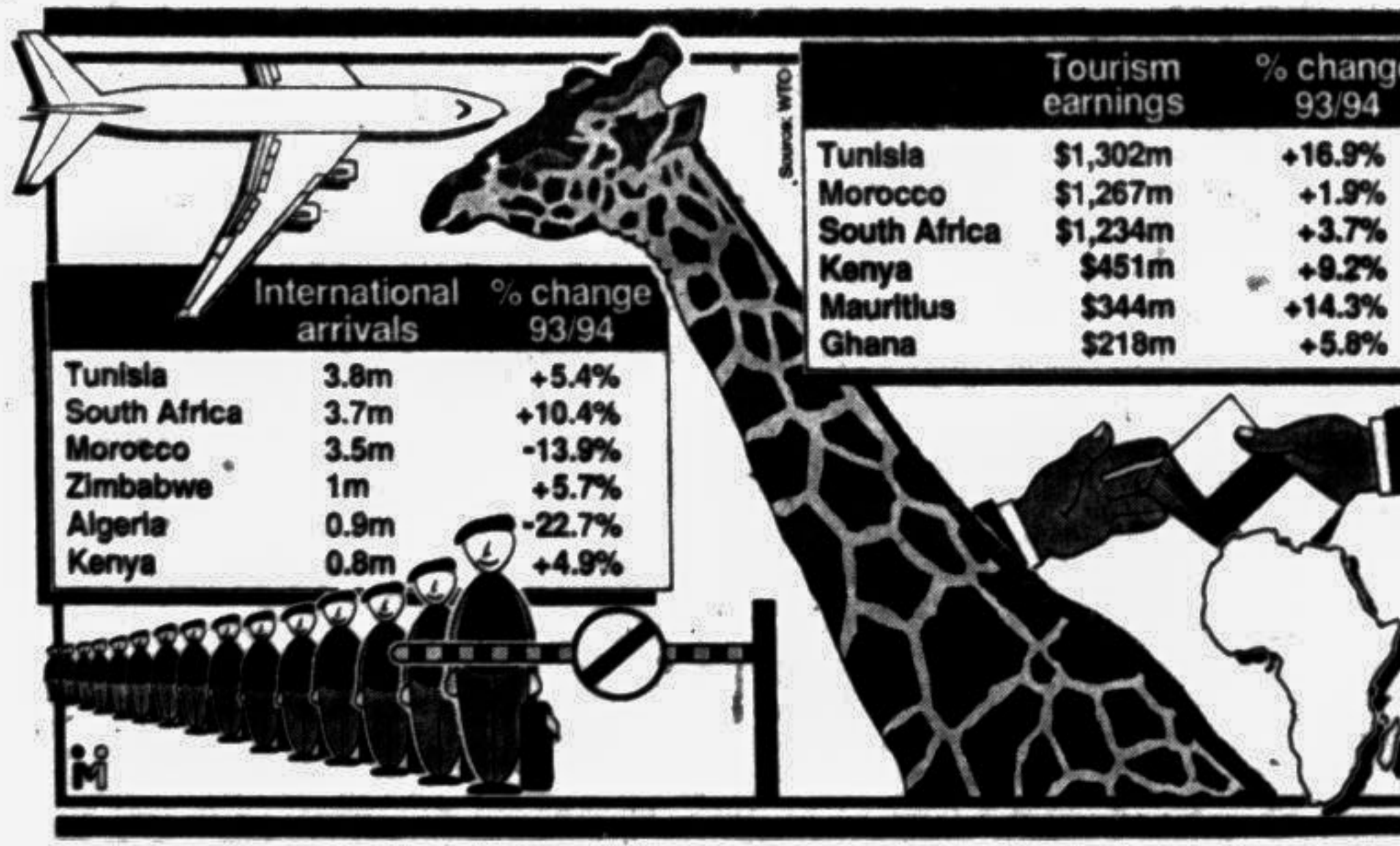
Mike Matola, Malawi's chief tourism officer, says that "we are all weak and fragmented economies" but "by putting our tourism act together" it will be possible to build up regional activities.

Leading Malawi businessman Andrea Bizzaro says, that since the idea began to filter down there has been tremendous activity on the ground and as a matter of fact we already have the blueprint - regional packages will mean

tourists will travel on a single cheaper ticket from the Cape to Mombasa. What we need is to harmonise standards, swallow national pride and create a single regional airline etc, so that we can compete favourably.

Harmonisation will not be easy. Regional development initiatives do not have a history of success in Africa. Even the two groupings which have come together to form the Tourism Council - the Southern African Development Community and the Common Market for East and Southern Africa - have a spotty record.

Mike Hafvey, Zambian chairman of the Tours and Lodges Association, admits: "Our major worry is how to get all the nations to agree on policy issues, to reduce taxes, harmonise tariffs, to remove visa restrictions and to divorce the industry from politics."



In addition, many countries will find it difficult to raise money for the estimated \$10 billion needed to renovate run-down infrastructure to international standards.

"The private sector is the only hope," says a Tanzanian economist, but in countries with particularly weak economies even the private sector is crippled by high taxes, import duties and interest rates.

Nevertheless, commercial operators are particularly pleased by the intention of the

governments concerned, in the words of Ian Jones, chairman of Malawi Hotel and Catering Association, "to involve the private sector at every stage of planning."

"In the last six months, we already have in Malawi fresh tourism investment of up to MK20 million. There are more applications to put worn-out facilities right and new projects going. We can't go wrong," he says.

In Zambia, 33 new lodges are being built by private investment at a cost of more

than ZK2 billion.

Some critics warn that the winner will be South Africa's well-oiled SR7 billion a year tourism industry, with the rest of the region left to share the crumbs.

Zambian hotelier Herman Streidl dismisses such fears: "South Africa is not the big issue. They will naturally get a lion's share, but tourists want to see the great lakes, the Victoria Falls and other attractions which are not in South Africa. So we have our share of the cake."