

because of the occasion of this announcement was the fact that the Brewery had moved from using steel cans to aluminium cans in the packaging of their product.

The Governor of South Australia, Sir Mark Oliphant, that well known Scientist with a great interest in the environment, was asked to declare open this program, and he said to me afterwards that he did this with some concern. It was claimed that perhaps (with publicity) 80 to 85% of the aluminium drink cans could be reclaimed for recycling, but the average experience prior to this was that if 50% reclamation took place this was satisfactory.

Sir Mark said he had wondered what had happened to the other 50% as aluminium was completely non-biodegradable whereas steel did rust away.

3. The beach problem. I have got a small holiday cottage on the shores of Port Phillip Bay in Melbourne. There is not as much passenger sea transport as there used to be but it is quite a busy harbour and along the beaches every day in the flotsam and jetsam there are many plastic bags of various shapes and sizes which are I believe completely non-biodegradable.

I suppose that this does not intervene much into the field of pollution but it certainly has a very marked impact on the environment.

Beaches all over the World seem to be a natural repository for waste products either left there by humans on land or cast overboard by ships at sea.

4. The D.D.T. Problem. Here obviously one of the factors that should be borne in mind is the relative benefit to mankind of the use of this pesticide with its very vast power for the reduction of disease,

the improvement of health and the improvement of the quality of life in relationship to the fact that it is a toxic drug which I gather is cumulative.

The overall philosophy of this study of course is momentous. The whole problem of overpopulation and of family planning comes into this and eventually the maintenance of a proper balance between the birthrate and the deathrate.

5. The toilet paper problem. Is this real? Our children at school have been taught to suggest to their parents they do not use coloured toilet paper because apparently the dyes used are non-biodegradable so that paper does not emulsify in the sewerage disposal areas.

6. Noise pollution. The Rolling Stones at Koo-yong.

*In conclusion* let me repeat what I think is a reasonable definition of a sound human environment. "It is that social situation which promotes the prevention and alleviation of human suffering and which effectively eliminates, dirt, disease and dissemination".

I hope in many countries that there is an active approach to this problem. There is no doubt that it has attracted world wide interest especially since the great conference in Stockholm last year.

I am constantly being made aware that in the Red Cross organisation in which I have a particular interest that most of the Red Cross Societies through out the World are now urging the International Red Cross to take an active part in the struggle against increasing pollution and in the fight to maintain a proper quality of life.

## The control of environmental pollution in Taiwan Area, Republic of China

It is my pleasure to present a brief introduction on the control of environmental pollution in Taiwan area, Republic of China to this Convention.

In accordance with the rapid development of

industry in Taiwan recent years, the problem of environmental pollutions has become a great concern not only of the related governmental authorities, but also of the general public. Although the need of

controlling such pollutions is increasing, the present status is not as severe as those in some developed countries. But with those factors such as high population density, rapid economical development and rather small land area, Taiwan has to expect more severe pollution hazards in the coming years. In order to minimise the pollution hazards, the action for pollution control should be initiated as early as possible. Actually we already started the control activities of environmental pollution many years ago. Since environmental pollution can be reasonably divided into four categories, i.e. air pollution, water pollution, land pollution and physical pollution, I would like to mention their control in Taiwan one by one.

### I. AIR POLLUTION

In 1958 the first air sampling station was set up in Taipei City which was the biggest city in Taiwan. Air pollution control area was set up and the regulation for Controlling Coal Burning (Taipei) was passed and came into force. This is the beginning. Since then similar actions were initiated by other Cities (Provincial Cities and County Cities) and by the end of 1971 there were 92 air sampling stations taking periodical air samples to measure dust fall in tons for square kilometer per month, total particulates in micrograms per cubic meter, smoke concentration in concentration of 60HS/1000ft. and the concentration of sulphur dioxide in ppm.

Technical assistance has been given to the related premises, especially to cement plants, iron works, chemical works, and coal-burning factories. The improvement consists of three main items: smoke abatement by installation of complete-combustion facilities, dust and fumes removal by installation of dust and fume collectors, and the proper installation for reduction of noxious gases.

The training for air pollution control and that for boiler operators has been conducted regularly.

The draft of the "Clean Air Act" was completed in March of 1969 and has been submitted to the National Government for approval. The draft of the standards of Maximum Permissible Concentration of Air Pollutants was also completed in June 1971.

Now I would like to point out the marked decrease in the amount of dust fall in some major cities of Taiwan Province to show you the improvement. In Kaohsiung City the average monthly amount of dust fall per square kilometer was 33.56 tons in 1969 and dropped to 12.19 tons in 1971. In Keelung City it was 21.44 tons in 1969 and decreased

to 13.66 tons in 1971. In Taichung City it was 11.53 in 1969 and 9.77 in 1971.

### II. WATER POLLUTION

Since about two third of the land area of Taiwan is mountainous area with many high mountain, the running of rivers is rather short in length and quick in speed. This natural factor influences the functions of self-purification and dilution of rivers. This fact together with the rapid industrization in recent years incurs the problem of water pollution. An increasing attention is being paid by the related authorities and the general public.

Investigation of some rivers with regards to the content and degree of water pollution has been carried out for some years. The owners of factories are requested to pay special attention to the disposal of waste liquid from their factories making sure that water pollutants are removed as much as possible.

The draft of the "Water Pollution Control Act" are now under preparation.

### III. LAND POLLUTION

Although this problem is not as dominant as the former two problems, it still gives some hazards to the health of the people. As an example, the use of untreated night-soil as fertilizer, though this is much seldom in present Taiwan than before, will help the transission of intestinal parasite. The use of chemical fertilizer has been encouraged to avoid this factor.

Urbanization brings us many problems such as refuse, night-soil, and factory and domestic waste water etc.. There is lack of complete sewerage system in many cities. Although the number of composting plants is increasing, they still can not cover the whole need. In order to improve the collection of garbage and night-soil, much money has been spent in purchase of many completely sealed trucks.

### IV. PHYSICAL POLLUTION

Vibration, Noise and Radiation etc. belong to physical pollution. The reports of such kind of nuisance came from many places in Taiwan in recent years. These cases are treated applying the prevailing regulations.

Because of time limit, I can only give you, through the above-mentioned briefing, a rough idea what is going on for the control of environmental pollution in Taiwan Area, Republic of China. I agree that there are still things to be done in this field. I thank you.