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(ACE Paper 12/97)
for information

Progress on Implementation of the Livestock Waste Control Scheme

Introduction

This paper informs Members of the progress as regards the implementation of the Livestock Waste Control Scheme (LWCS).

Background

2. Before the LWCS was put into place, livestock farmers used to dispose of their waste directly into nearby streams and rivers without any treatment. The indiscriminate disposal of livestock waste has caused serious pollution of streams and rivers in Hong Kong. In 1987, the pollution caused by livestock waste was equivalent to raw sewage produced from a population of 1.67 million people.

3. To prevent further deterioration of Hong Kong's watercourses as a result of livestock waste pollution, the Administration introduced the LWCS, which includes legislative control and the provision of financial assistance and advisory service on management, treatment and disposal of livestock waste, in 1987.

LWCS between 1987 and 1994

4. Under the LWCS, livestock keeping in the Urban Council areas and new towns in the New Territories was prohibited with effect from 24 June 1988. In addition, control of livestock keeping was also implemented in Tolo Harbour, Angler's Beach and Mui Wo, with a view to extending the control to other parts of the New Territories in subsequent years. However, due to the strong objection to the LWCS by livestock farmers, the Government then decided that the control would not be extended to other areas until a review had been made of the operation of the private farm demonstration projects and the appropriateness of the control regulations. Following an in-depth review of the control arrangement and extensive consultation with the livestock keeping trade, the LWCS was revised and relaunched in 1994.

The Revised LWCS

Legislative Control of Livestock Waste

5. Legislative control of the revised LWCS in 1994 is provided by the Public Health (Animals and Birds) Ordinance, the Waste Disposal Ordinance and the Waste Disposal (Livestock Waste) Regulations.

Prohibition, Restriction and Control Areas

6. Under the revised LWCS, the territory is classified into different areas in terms of the extent of control, as below : -

- a) Prohibition Areas, where livestock keeping is banned. Prohibition Areas cover mainly Urban Council areas and new towns in the New Territories;
- b) Restriction Areas, where only existing livestock keeping activities are allowed provided that they comply with the legislative requirements described in paragraph 8 below; and
- c) Control Areas, where livestock keeping activities must comply with the legislative requirements described in paragraph 8 below.

The locations of the various Livestock Waste Prohibition, Restriction and Control Areas are shown in Appendix.

7. As at end of December 1996, around 700 livestock farms out of some 1,000 livestock farms in Hong Kong are located in areas already under control. By 1 July 1997, all livestock farms will be subject to control under the LWCS.

Livestock Keeping Licence

8. The control of livestock farm activities in the Restriction and Control Areas is by means of a licensing system. New livestock farms in Control Areas must apply to the Director of Agriculture and Fisheries for Livestock Keeping Licences (LKLs) and they must not start operation before the LKLs are issued to them. Existing livestock farms in Restriction and Control Areas are also required, in phases, to apply for LKLs. However, in the case of existing livestock farms in Restriction Areas, they may apply for a Written Authorization from the Environmental Protection Department (EPD), which serves the same purpose as the LKL, instead. In applying for LKLs, livestock farms have to provide details of their proposed waste treatment systems or disposal method (e.g. Dry Muck-Out practice). LKL will be issued when the installation of the waste treatment system is completed.

Discharge Standards

9. Under the revised LWCS, livestock farms with waste treatment system installed must treat their liquid livestock waste to the required standards before discharge. The required standards on Biochemical Oxygen Demand (BOD₅) and Suspended Solids (SS) are implemented by a three-year phased programme to allow sufficient time for livestock farm operators to gain adequate experience in operating their waste treatment systems. The requirements are at 250:250 (mg/L BOD₅:mg/L SS) initially, which will be tightened to 100:100 and then to the ultimate standards of 50:50.

10. The discharge standards of 250:250 will be extended to the whole territory starting from 1 July 1997. Currently, the 100:100 discharge standards have already been implemented in some of the Restriction and Control Areas. By 1 July 1999, all livestock farms must comply with the ultimate standards of 50:50 (please see Appendix for details).

Assistance and Service to Livestock Farms

11. To encourage livestock farms to dispose of their waste in an environmentally acceptable manner, assistance and service have been provided by the Government to livestock farms through various means.

Technical Assistance

12. The Secretary for Planning, Environment and Lands has issued the "Codes of Practice: Livestock Waste Management" in 1994 when the LWCS was revised and relaunched, to give guidance and directions on the collection, storage, treatment, transportation and disposal of livestock waste. Various livestock waste treatment systems have been introduced by EPD and AFD. Related publications have also been issued for livestock farmers' reference in planning their waste treatment systems.

Financial Assistance

13. To assist livestock farms in overcoming the financial problem which may be encountered in the installation of waste treatment system, financial assistance is provided to eligible livestock farms, i.e. those farms that have been in existence at the time of the Freezing Survey conducted by EPD in 1987 and remain in operation prior to control in the specific area becoming effective. The financial assistance is given in the form of Capital Grant (CG) administered by EPD. Up to end of December 1996, a total of 491 CG applications have been received and an amount of \$31 million have been granted to 288 farms.

14. Livestock farms who have successfully applied for CG may also apply for an equal amount of low interest loan under the Kadoorie Agriculture Aid Loans administered by AFD.

15. Farmers who opt to cease their livestock keeping business may apply for an Ex-gratia Allowance (EGA) from EPD. Up to end of December 1996, a total of 7,912 EGA applications have been received and an amount of \$831 million have been granted to 6,180 farms which have opted to cease operation .

Collection Service

16. Before the implementation of the LWCS in 1988, EPD had provided a livestock waste collection service to facilitate livestock farms in disposing of solid livestock waste. The collection service was initially provided by means of collection points. Wastes collected were subsequently sent to Sha Ling Composting Plant for making compost.

17. In July 1996, EPD introduced a new door-to-door collection service to replace the original collection point system. The new collection service, along with the operation and maintenance of the composting plant, has been awarded to Waylung Waste Collection Ltd under a 4-year contract.

18. For the month of December 1996, a total of 286 livestock farms, including pig, chicken, pigeon and quail farms, were being served by the new service. For the provision of this service, the contractor has distributed over 2,000 collection bins to livestock farms registered for the service and has deployed 7 collection trucks to collect the solid livestock waste from them.

Legislative Compliance and Enforcement

19. Livestock farmers must take appropriate measures in handling livestock waste. EPD undertakes regular inspections to all existing livestock farms. Information gathered from the inspections has shown that some livestock farms have already successfully achieved the ultimate discharge standards of 50:50. Prosecution may be instigated when non-compliance with the discharge standards or improper disposal of livestock waste is detected.

20. Up to end of December 1996, there have been 63 livestock waste related successful prosecutions since the implementation of the revised LWCS in 1994. In 1996, 256 complaints on livestock wastes were received by EPD, leading to 50 successful prosecutions with fines totalling \$308,000.

Environmental Improvement

21. After the implementation of the revised LWCS in 1994, most livestock farmers in the area under control have been adopting appropriate livestock waste treatment and management techniques in handling livestock waste instead of directly discharging it to the environment. These livestock farmers have installed necessary waste treatment systems to treat their liquid livestock waste and use the collection service to dispose of their solid livestock waste.

22. As a result of the continuous efforts of the livestock keeping trade and the Government, the amount of livestock waste which enters the streams and rivers of the New Territories has reduced from 840,000 tonnes per annum in 1987 to 170,000 tonnes per annum by the end of 1996. Starting from 1 July 1997, the control of livestock waste will be extended to the whole territory. It is expected that the livestock waste pollution will be further reduced leading to further improvement in the water quality of Hong Kong.

Environmental Protection Department
February 1997

Summary Implementation Programme of the Revised Livestock Waste Control Scheme

Categories of Area	Area No.	Location	EGA/CG* Application Deadline	Phased Implementation of Discharge Standards *			Livestock Keeping ** Licence Application Period
				250:250	100:100	50:50	
Prohibition	1 & 2	Urban Council Area	N/A	N/A	N/A	N/A	N/A
	3-9 & 9A	Regional Council Area, All New Town Areas, Part of Lantau Island and Part of Outlying Islands	31.12.94*				
Control	11	Tolo Harbour and Part of Tolo Channel Area	31.3.89	1.7.94			1.7.94-31.12.94
	10	Part of River Indus Area	31.12.94	1.7.95	1.7.96	1.7.97	
	12	Upper Sham Chun (Shenzhen) River Area					
	13	Part of Tsuen Wan, Liu To Village and Environs and Tai Lam Chung Area					
	14	Part of Tuen Mun Area					1.7.95-31.12.95
	15	Corridor between Tuen Mun and Yuen Long					
	16	Part of Yuen Long Area	31.12.95	1.7.96	1.7.97	1.7.98	
	17	Kam Tin River Area					
	18	Part of Tin Shui Wai Area	31.12.96	1.7.97	1.7.98	1.7.99	1.7.96-31.12.96
	19	Part of San Tin and Lau Fau Shan Environs					
	20	Mau Wu Tsai Village and Environs					
	21	Part of Sai Kung Area					
	22	Junk Bay Environs					
	23	Part of Outlying Islands					
	24	Part of Long Harbour Area					
	25	Part of Starling Inlet Area					
Restriction	11R	Part of Mui Wo and Part of Tolo Channel Area	31.12.94**	1.7.94*			1.7.94-31.12.94
	10R	Part of River Indus Area	31.12.94	1.7.95	1.7.96	1.7.97	
	13R	Part of Tsuen Wan Area					
	14R	Part of Tuen Mun Area					
	16R	Part of Yuen Long Area	30.6.95	1.1.96	1.1.97	1.1.98	1.1.95-30.6.95
	18R	Part of Tin Shui Wai Area					
	19R	Part of San Tin Area					
	21R	Part of Sai Kung Area					
	23R	Part of Outlying Islands					
	24R	Part of Long Harbour Area					
	25R	Part of Starling Inlet Area					

Note: ** administered by Agriculture and Fisheries Department.

* EGA only applicable to eligible farms in the newly expanded parts of Prohibition Areas.

BOD : SS (in mg/L)

only applicable to farms on Lantau Island other than in Mui Wo Environs.

@ CG is not applicable to farms in Prohibition Areas.

+ 1 July 1995 for farms on Lantau Island other than in Mui Wo Environs.

N/A NOT APPLICABLE