

## Brief on Policy on Poultry Industry

Poultry rearing activities which started as a backyard development have undergone a rapid process of intensification lately. Whilst this has led to improved productivity and competitive consumer prices, it has also negatively impacted upon the neighbourhood and the environment. 54 % of the farms are operating after obtaining EIA licence or PER approval, while the remaining 46 % of the total farms are operating without any permit within settlement boundary. Thus, conflict due to intensification of these poultry farms with inadequate space and know how for proper waste management is getting stronger as residential development is expanding. Aware of the increasingly crucial call for sustainable agriculture and in order to prepare the sector for the possible adverse impacts resulting from the liberalisation of trade and other challenges, it was felt that the industry needed to be restructured and that a Policy Paper on Poultry Industry be prepared by the Ministry of Environment & NDU. The main objectives of the policy were to:

- To assess the impacts of the environmental problems of the industry and;
- To recommend a policy on waste management , institutional and legal frameworks and siting of the industry towards environmental sustainability

## FINDINGS

The main findings are as follows:

- The characterization of waste water from hatchery, farm, and slaughterhouses and processing plants showed high levels of coliform bacteria, thereby indicating the possible presence of other pathogenic bacteria. It was thus deduced that solid wastes would contain even more of the bacteria.
- Solid wastes were found to be generated from **farming**, slaughtering, hatchery and processing in a decreasing estimated quantity from 120 000 tons per year to 0.52 tons per year.

Solid wastes in terms of litter and droppings from pens constitute the main concern of the industry; these are being reused by the farming community without any treatment.

- Waste water was found to be generated in a higher to a lower volume from **slaughtering**, farming, processing and hatchery ranging from an estimated volume of 400,000 m<sup>3</sup> to 3, 500 m<sup>3</sup> per year.

Waste water from the slaughtering sector is of major concern in view of its large volume and pollution load. Most waste water is not adequately treated.

Most wastewater from the different sectors of the poultry industry does not meet the standards for effluent discharge into the environment, into sewers or for irrigation purposes with respect to both physico-chemical and microbiological parameters.

- Concerning land use, besides the poultry activities located within the residential areas, there is an emerging concern for expansion of residential development on the buffer zone of EIA/PER approved farms outside settlement boundaries. Access to land is a major hurdle in the relocation/location of farms. There is potential for extension of existing farms, for meeting future demand of meat, eggs and processed products.
- It is found that the institutional frameworks have been well established and they are adequately mandated to control the local poultry industry. However, legislations pertaining to poultry rearing are scattered and are inadequate to cater for the current context.

Based on the above findings, recommendations were devised based on a mixed strategy approach combining relocation, siting, waste treatment, legislation and enforcement.

## **RECOMMENDATIONS**

The main recommendations are as follows:-

### **Planning towards sustainability**

- In view of the potential risk of the Avian flu disease, a phasing out plan for farms in built up areas shall be devised. A survey shall be undertaken on all farms located within settlement boundary with respect of their activeness in the industry, contribution to the market and interest in relocation to become a professional farm. As such, the farms would have the means and capacity to prevent and respond to potential risks of the latter diseases.
  
- In line with the introduction of a relocation strategy, identification of some low potential agricultural/marginal land/buffer for bad neighbour development - at a regional level, which are outside the Irrigation Zone, be recommended for the clustering of poultry farms/other related activities whilst observing the statutory setback between poultry farms. The provision of an Incentive Scheme will allow for implementation of the strategy as it would benefit both farmers and land owners.
  
- In view of the existing potential for expansion of properly located farms, the TAC favours expansion of existing activities and recommends that a survey be undertaken on all EIA licensed and PER approved farms for their potential for expansion in the light of projected demand for eggs, meat and processed products.
  
- Moreover, based on the scarcity of land, expansion potential of properly located farms, the 97 % contributions of meat and eggs by industrial scale poultry operators' and the capacity to prevent and respond to potential risks of diseases, it is recommended that proponents be encouraged in more vertically integrated poultry production. This will involve controlling all stages of production from feed manufacturing, breeding, hatching and rearing through product processing and marketing towards sustainability.

## **Waste treatment**

➤ As a means to minimize wastes, nuisances and flies/pests proliferation from source, proper husbandry practices and other management operations shall be undertaken as recommended.

➤ In view of the pathogenic nature of both solid wastes and wastewater from hatchery, farming, slaughtering and processing, both solid and liquid wastes shall be carefully handled, contained, stored by properly equipped operators and/or transported to be treated or carted away in licensed waste carriers as provided for in the Local Government Act, 2003.

➤ As litter and droppings have good composting potential and composting has successfully been tried on-farm using the windrow system, on-site composting could be allowed on **a case to case basis**. The farmer must have the required land and should respect the required distance from farming as advised by the relevant authority.

➤ In view of land scarcity, cost-effectiveness and better control on quality of compost, composting shall be done in a regional or central composting plant. The composting plant shall preferably be located within the clustered areas for poultry activities and the technique to be adopted be such that there is lower greenhouse gas emissions to benefit from funds under the Cleaner Development Mechanism of the Kyoto Protocol.

➤ As dead birds represent 3 to 5 % of the bird's cycle, it is recommended to bury them on site or co-compost them with litter/droppings as per advice from the relevant authority.

➤ All solid wastes from slaughterhouses shall be either rendered for formulation of pig feed as per draft Pig Regulations or disposed of daily by carting away in landfill, failing which the said wastes shall be stored in chilled rooms until final disposal, or to an industrial scale slaughterhouse which can afford to have the required technology for transformation.

**Waste water management recommended as follows:-**

- Wastewater from hatchery be disposed of into a septic tank and soak away system.
  
- Given the polluting potential of the wastewater from farms, the wastewater shall be disposed of into appropriately designed soak away; the design shall be based on a waste water flow of 10 m<sup>3</sup> per 10 000 birds.
  
- Blood from slaughterhouses shall be separated from the normal wastewater stream. The coagulated blood shall be stabilized with lime and disposed of at the landfill or rendered for use as pet food.
  
- Extensive dry clean up followed by wet wash down is recommended to be the best approach to reduce the suspended solids and the organic loading in the effluent streams and wastewater treatment costs.
  
- All large scale slaughterhouses shall have on-site waste water treatment plant either as a pre-treatment facility for compliance to standards for discharge into sewers or as a full treatment facility to make the final effluent acceptable for discharge into the environment.
  
- Small scale slaughterhouses shall construct a watertight holding tank to hold the wastewater and same be carted away to an approved disposal site of the WMA. The size of the holding tank would be a function of the capacity of the slaughterhouse but should not be less than 10 m<sup>3</sup>.
  
- Wastewater from processing plant shall be stored in lined tanks and carted away to approved disposal sites if the area is not sewerred.
  
- All slaughterhouses and processing units discharging or carting away untreated/ treated wastewater into a wastewater system, shall apply for a licence from the Wastewater Management Authority as stipulated in Waste Water (Standards for discharge of industrial effluent into a waste water system) Regulations 2004.

➤ All slaughterhouses/processing plants discharging treated effluent in watercourses shall apply for an Effluent Discharge Permit from the Water Resources Unit as stipulated in Environment Protection (Effluent Discharge Permit) Regulations 2003.

### **Institutional and legislative arrangements**

- Health guidelines shall be prepared for the hatchery sector and the Environmental guideline on Poultry shall be amended to include guidelines for the hatchery sector.
- The draft Poultry Rearing Regulations shall be amended in light of the recommendations of the TAC report and promulgated as a priority.
- An awareness campaign shall be undertaken to inform operators on the recommendations of the TAC.

*The Policy will be implemented by the Ministry of Agro Industry and Fisheries (Agro Industry Division).*

*The full text of the document is available for consultation at the Resource Centre of the Ministry of Environment & NDU, Ground Floor, Ken Lee Tower, Cnr St Georges and Barracks Streets, Port Louis*