breake the law and deterrent punishment be given to them; and

(d) if so, the details of the complaints received from different places and action taken to punish the culprits?

THE MINISTER OF STATE IN THE MINISTRIES OF AGRICULTURE AND RURAL DEVELOPMENT (SHRI R. V. SWAMINATHAN) : (a) to (d). Only one incident of poaching involving senior State Government officials has been reported. This was a report from the Field Director of Corbett Tiger Reserve in Uttar Pradesh. Shri Brijendra Singh, a conservationist, also reported the same incident.

The brief facts are that on January 1982 the Commissioner Moradabad. District Magistrate Bijnor, Superintendent of Police Bijnor, Sub-Divisional Magistrate Nagina (Distt. Bijnor), and Police Station Officer, Kalagarh (Distt. Bijnor), entered the area of the Corbet National Park in a boat of the State Irrigation Department. A few shots were fired by this party from the boat at some cheetals inside the park. Shri Brijendra Singh and a few others witnessed this and assisted the Project Tiger staff in catching the offenders and registering a case.

On receipt of this information, the matter was taken up immediately by the Union Minister of Agriculture with the Chief Minister of Uttar Pradesh. Looking to the serious nature of the case, the State Government was urged to prosecute the delinquent officials and also to initiate disciplinary action.

The State Government has since transferred the concerned officers. It has been reported that the matter arose in the U.P. Legislative Assembly and Council. The Chairman of the Legislative Council has directed the U.P. Minister of State for Forests to enquire into the matter himself.

The State Government has again been urged to take urgent action to prosecute the offenders. The Prime Minister's Office is being kept informed about the matter.

## Supply of drinking water to Delhi from Okhla Headworks

5696. SHRI H. N. NANJE GOWDA: Will the Minister of WORKS AND -HOUSING be pleased to state:

- (a) whether Government are aware that near Okhla Headworks thousands of litres of industrial effluent are pouring into Jamuna river which after processing is being sent to the residents of Delhi particularly those living in the South Delhi as drinking water:
- (b) whether putrid stench of this polluted water spreads over a couple of miles and has made living there impossible:
- (c) whether the colour of the water at this point is dark and the water is so poisonous that daily thousands and thousands of fish die when nature has made them better suited to fight pollution; and
- (d) whether Government have made an on the spot survey of the aforesaid spot and if so, when and their findings about the state of pollution and the immediate steps being taken to stop industrial effluent into the river water ?

THE MINISTER OF PARLIAMEN-TARY AFFAIRS AND WORKS AND HOUSING (SHRI BHISHAM NARAIN SINGH): (a) to (d). The information is being collected and will be laid on the Table of the Sabha.

## Bio-Gas from Willow Dust

5697. SHRI H. N. NANJE GOWDA: Will the Minister of AGRICULTURE be plased to state:

- (a) whether it is a fact that a new method of producing bio-gas which can generate electricity from willow dust which a waste product of the cotton taxtile mills has been evolved by the Cotton Technological Lab., in Bombay:
- (b) if so, what are the details of the new innovation made:

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- (c) whether it is also a fact that if harnessed on large scale the cotton mills in the country can cut down by at least half their dependence on coal and the cost of generation will be really small as the basic raw material is at present being thrown out as waste or sold for a nominal price; and
- (d) whether Government would give a sincere trial to the above innovation and if so, what plans have been made, if any, for this purpose?

THE MINISTER OF STATE IN THE AGRICULTURE MINISTRIES OF AND RURAL DEVELOPMENT (SHRI R. V. SWAMINATHAN): (a) Yes, Sir. Cotton willow dust or willow waste, which is a waste product in textile mills can be used for producing bio-gas by anaerobio batch fermentation process. This gas from willow dust is similar to gobar gas (bio-gas). Bio-gas can be used as fuel to run an internal..combustion (IC) engine. IC engines particularly diesel engines are used to run generators. M/s. Kirolskar Oil Engines Ltd. have developed a engine running on diesel as well as bogar gas (bio-gas). This engine can be coupled to a generator also. However the total quantity of bio-gas from willow dust will not be sufficient to kep a generator functioning for reasonably long periods of time. for reasonably long periods of time. The economic of production of electricity from bio-gas has not been worked out.

(b) A laboratory unit of 100 kg capacity has been set up in the Cotton Technological Research Laboratory, Bombay and experiments have been carried out. Cotton willow dust is treated with alkali and allowed to ferment in open for about 3-4 days then it is transferred in anaerobic digester added with 6 litres of water for every Kg of willow dust. During 'the first wek of fermentation, the gas produced contains considerable quantity of carbon dioxide and hence not suitable as fuel. After the first week the methane content in bio-gas increases to 55-60 per cent and can be used as a fuel. The gas produced can

be collected over water in a suitable gas holder. After the first month when gas production decreased the slurry is removed and a fresh charge is placed in the digester. Besides bio-gas a 100 kg of willow dust yields 50 kg of excellent manure.

- (c) It is too optimistic to expect so much of energy saving from bio-gas production possible from the willow dust. It is estimated that the textile mills if country produce KWH electo 33,000 tons of willow dust only. the technology developed at C.T.R.L., Bombay, it is possible to produce 5.28 million cubic metres of biogas per year which will be pproximately equivalent to 3 million litres of diesel oil or 17 million KWH electricity. This gas can be used for various purposes in the textile miles such as singeing of yarns, use in the laboratory and canteen etc. Generation of electricity from willow dust bio-gas is yet to be studies, for use in the 'extile industry.
- (d) It has been decided in a meeting held recently in the Planning Commission that a Pilot Plant would be set up in one of the Nationalised Textile Mills in Bombay to find out how far the use of this gas will be feasible in a textile mill.

## Increasing Berthing Charges for Fishing Trawlers

5698. SHRI MOHAN LAL FATEL: SHRI DAULATSIMHJI JARDEYA:

Will the Minister of AGRICUL-TURE be pleased to state:

- (a) whether it is a fact that high rates are being charged for berthing and other facilities at fishing harbours in the country;
- (b) if so the details of the rates charged; and
- (c) whether Government will consider the rates in view of the economic difficulties of the fishing industry?