Construction Status of Biogas Digester and Its Promotion Policies

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Thank you very much for inviting our city to this International Workshop.

Construction Status of Biogas Digester and Its Promotion Policies in Dalian City

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1.1 Effects of Utilization of Biogas on Low Carbon Development
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1.1.1 Biogas Digester for Household

In Dalian city, 1 biogas digester of 8 meter squares can substitute firewood consumption of about 1.5 t per a year and generate methane gas of about 300 meter squares equivalent of 0.7 t coals per a year. It can generate organic fertilizers of about 10t to 15t per a year and meet the demand of production of green vegetables of 1334 to 2001square meters. The amount of agricultural products utilizing organic fertilizers has increased more by 8 to15% than the one utilizing the same price of chemical fertilizer and more by 11 to 20% than the one utilizing the same amount of chemical fertilizer. In addition, biogas has sharply improved qualities of soils and agricultural products. Each farmer can save fuels, agrichemicals, and fertilizers of the average 500 to 600 yuan on average.

1.1.2 Large and Medium-sized Biogas Digester of More Than 300 Square Meters

Scraps after methane fermentation can be utilized in mushroom culture.

1.1 Effects of Utilization of Biogas on Low Carbon Development

1.1.2 Large and Medium-sized Biogas Digester of More Than 300 Square Meters

Nitrites from hydroponic culture cannot exceed standards by utilizing digestive fluid of methane fermentation.

Large and medium-sized biogas digesters in pastoral farming can promote zero emissions of polluted water and recycle waste of pastoral farming.

1.2 Construction Status of Biogas Digester

The number of farm households introducing biogas digester will total about 100 thousand and the number of utilization areas of large and medium-sized biogas digester will total 320 by the end of 2010.

Biogas digester could save corals of about 140 thousand ton, reduce CO2 emissions of about 73 thousand ton, produce organic fertilizers of 162 thousand ton, and dispose garbage of about 20 million ton. Farmers can increase annual incomes by more than 200 million yuan. In addition, implementing projects of rural energies and biology could increase use of renewal energies and improve energy shortage and living environment in farming villages.
1.3 Issues

- Construction of Biogas Digester for Household Will Rapidly Decrease.

There is a possibility that materials of biogas digesters for households will be scarce because stockbreeding tends to shift from household farming to large farming.

2. Promotion Policies of Municipal Government

2.1 Subsidies for Construction of Biogas Digester

Dalian municipal government and each prefectural government separately offers subsidies of 1500 yuan and 500 yuan, for construction of 1 biogas digester for household, which devote half the cost of construction. (Subsidy from central government is 1500 yuan and farmer’s own expense is 500 yuan.)
2. Promotion Policies of Municipal Government

- Service network for construction of biogas digester
- Service network was established by investment from Dalian municipal government in order to raise utilization ratio of methane gas that had been once low due to lack of repair and maintenance and wrong timing of materials’ inputs and outputs.
- Service network provides vehicle of digestive fluid for methane fermentation, repair, inspection, and maintenance facilities, and parts of biogas digester.

Thank you for your attention.