

Water Saving in Biogas Plants—A Revolutionary Technology

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ABSTRACT

More than 3 million family size biogas plants have so far been installed in the countryside under the National Project on Biogas Development implemented by ministry of Non-conventional Energy Sources since 1983. Various designs of the biogas plants are being propagated under the programme may be classified as floating drum type and fixed dome type popularly known as Janta and Deenbandhu biogas plants. Biogas Plants in India manly use cattle dung mixed with an equal quantity of water and the digested slurry is watery. This used a great quantity of water and the handling of this slurry was another cumbersome project. In order to improve it, a modification has been done in existing biogas plants which discharges digested slurry with solid content 16–18% total solids. Solid-state digestion of the cattle dung is considered a suitable method of waste disposal for biogas production. The biogas plant is using very less quantity of water as compared to the conventional biogas plants. In the first instance a biogas plant was commissioned at the campus and after successful trial at the campus, it was taken to the field and is working very well at the various places in the field. It will prove a boon for the areas where there is scarcity of water. Authors have studied in this paper various aspects of the modified Janta biogas plants regarding its modification being done, how the digested slurry is different from the routine slurry.