

## Fact Sheet

# Low-Cost Polyethylene Tube Digester - Tropics

by GTZ / EnDev – Bolivia

### Application Region

Climate:	Warm summers and soft winters. Tropic climate. Mean ambient temperature over 20 °C
Meters above sea level:	0 – 2.000 m <sub>asl</sub>



### Operational Characteristics

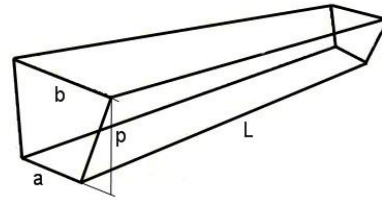
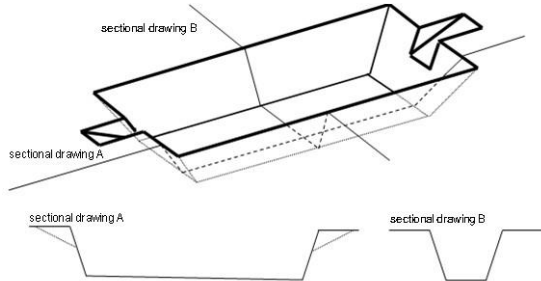
Diary load of substrate:	20 kg of dung (cow) and 60 l of water
Diary biogas production:	700 - 750 l (4 - 5 hours for cooking)
Diary biol (fertilizer) production:	80 l
Retention time:	34 days
Time needed to begin to work:	1 months
Internal working temperature:	20 °C

### Digester Dimensions

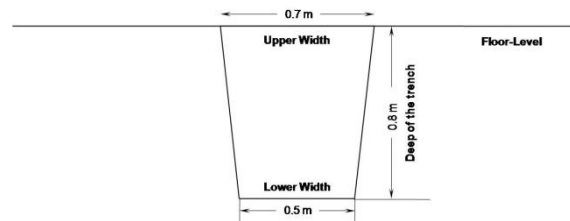
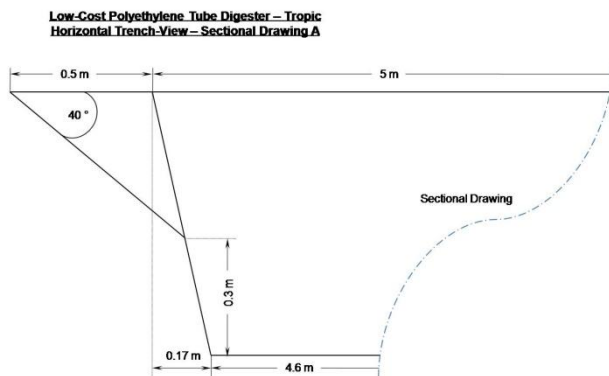
Total Volume:	3,63 m <sup>3</sup>
Liquid Volume:	2,72 m <sup>3</sup>
Gasholder Volume:	0,91 m <sup>3</sup>
Roll width:	1,5 m
Digester-Diameter (D):	0,96 m
Length of the digester (L):	5,0 m
Ratio L/D:	5,3

## Trench Dimensions

Lower width of the trench:	0,5 m
Upper width of the trench:	0,7 m
Deep of the trench:	0,8 m
Length of the trench:	5 m



**Low-Cost Polyethylene Tube Digester – Valley / Tropic  
Vertical Trench-View – Sectional Drawing B**



## Accessories

Gas Storage Reservoir:	2 (0,65 m <sup>3</sup> each / total 1,3 m <sup>3</sup> )
Burner (Stove):	1
Protection:	Half Shade Red 50 % (7 m x 2 m)
<b>BUDGET (January 2010):</b>	<b>93,- € (138,- us\$)</b>