Supplementary Information

Table S1. Material balance for raw materials and intermediate products for every 100 L of raw septage processed (1 batch process)

Material Balance	Raw Materials					Intermediate Product		
	Raw Septage	37% HCl	8.35 M NaOH	$MgCl_2.6H_2O$	NH_4Cl	Hydrolysed septage	Supernatant	Supernatant Losses
Volume, L	100.00	0.71	0.37	-	-	100.71	63.23	20.00
Mass, kg	100.60	0.85	0.48	0.018	0.009	101.45	63.23	20.00
NPK								
Total Nitrogen, g	101.72	-	-	-	2.39	101.72	55.58	17.58
Total Phosphorous, g	69.89	-	-	-	-	69.89	45.79	14.48
Potassium, g	49.31	-	-	-	-	49.31	36.69	11.61
Calcium, g	172.41	-	-	-	-	172.41	122.12	38.63
Magnesium, g	19.97	-	-	2.15	-	19.97	12.96	4.10
Heavy Metals								0.00
Arsenic, g	0.03	-	-	-	-	0.03	0.01	0.00
Cadmium, g	0.04	-	-	-	-	0.04	0.03	0.01
Iron, g	135.71	-	-	-	-	135.71	85.23	26.96
Mercury, g	<0.0002	-	-	-	-	<0.0002	<0.0002	<0.0002
Lead, g	0.63	-	-	-	-	0.63	0.33	0.11
Zinc, g	16.27	-	-	-	-	16.27	9.09	2.87
Microbiological								
Fecal Coliform, MPN/100mL	$9.20x10^5$	-	-	-	-	N/A	N/A	N/A
E.coli, MPN/100mL	$9.20x10^5$	-	-	-	-	N/A	N/A	N/A

Table S2. Material balance for recovered phosphorous fertiliser and by-products for every 100 L of raw septage processed (1 batch process)

Material Balance	Product	By-product		
	Recovered phosphorous fertiliser	Waste sludge	Effluent	Effluent Losses
Volume, L	-	-	38.37	20.00
Mass, kg	0.29	1.87	38.37	20.00
NPK				
Total Nitrogen, g	0.59	28.56	4.76	2.48
Total Phosphorous, g	9.61	9.61	0.00	0.00
Potassium, g	0.71	1.01	1.15	0.60
Calcium, g	22.03	11.67	60.24	31.40
Magnesium, g	4.53	2.91	2.95	1.54
Heavy Metals				
Arsenic, g	ND	0.01	0.00	0.00
Cadmium, g	0.00	0.01	<0.001	0.00
Iron, g	12.80	23.52	0.00	0.00
Mercury, g	<0.0002	<0.0002	<0.0002	<0.0002
Lead, g	0.01	0.19	<0.005	0.00
Zinc, g	0.15	4.31	0.00	0.00
Microbiological				
Fecal Coliform, MPN/100mL	0.25	0.21	2.00	N/A
E.coli, MPN/100mL	0.25	0.21	2.00	N/A

Table S3. Ratio of raw materials, by-products, and recovered phosphorous fertiliser per L of septage

Materials	Ratio of Materials per L septage		
	Salikneta	**SpTP**	**Salikneta + SpTP**
Raw Materials			
37% HCl, mL/L septage	5.75	7.24	7.15
8.35 M NaOH, mL/L septage	1.98	3.82	3.71
98% NaOH, g/L septage	0.67	1.30	1.26
$MgCl_2.6H_2O$, g/L septage	0.19	0.22	0.22
NH_4Cl, g/L septage	0.10	0.11	0.11
By-products			
Waste Sludge, kg/L septage	18.00	18.71	18.67
Effluent, L/L septage	0.34	0.39	0.38
Product			
Recovered phosphorous fertiliser, g/L septage	**1.97**	**2.99**	**2.92**

Figure S1. Fabricated nutrient recovery batch reactor installed at Salikneta Farm

Figure S2. Tomato and eggplant cultivated using the recovered phosphorous fertiliser from septage