Worksheet Module 4 Week 3A: Design technology systems for nutrient recovery

1. What suitable technologies are available locally for the proposed RRR intervention?

2. What is the level of performance and efficiency of the proposed technology?

3. Are there resource constraints related to labour, land, energy or other factors of production? 4. Are the required technologies, finance, regulations and incentive mechanisms available to support timely repair and maintenance?

5.	 Design your composting system: 				
•	Mass reduction by 50% (rule of thumb)				
	Sales volume (kg/day)				
	Determine amount of input required ($\frac{Sales Volume(kg/day)}{Sales Volume(kg/day)} = Amount of organic solid waste compost$)				
	0.5				

Calculate the number of composting piles (Density of organic solid waste= 0.4 – 0.6 kg/L, Piles: width of 1.6 m / height of 1.6 m / length of 2 to 3 m, Boxes: width of 1.5m / height of 1.2 m/ length of 1.5 m)

 Calculate the time of a production cycle (days) (Pre-treatment (x days) + Principal treatment (40)
$\pm 20 days) \pm 1/aluo addition (x days)$
+ 20 days + value adultion (x days)

• Describe the specifications of each treatment step: pre-treatment, principal treatment and value addition

	Type of technology	Capacity	Machinery & equipment needed
Pre-treatment:			
Principal treatment:			
Value addition:			