

### Business Opportunities in the Organic Waste Sector in Jordan

Jordan Recycling Activity Conference

Jun 12, 2024



### Agenda

- About Cewas
- Organic Waste Value Chain Simplified
- Business Models in Organic Waste Early Stage
- A Closer look at the Compost Value Chain
- Limiting Factors to Growth in the Sector
- What is needed to Improve Market Potential
- Q&A



### Cewas - Who we are?

- Swiss NGO established in 2010 and active in the Middle East since 2014
- Specialized in Water and Environment
- Support innovation and environmental entrepreneurship
- Ecosystem mobilizer















### Cewas – Who we are?

#### Business Development Support (Enterprises)

- Ideation Growth
- Investment Facilitation



#### Ecosystem Development

- Capacity Building Joint Collaboration
- Policy Advocacy

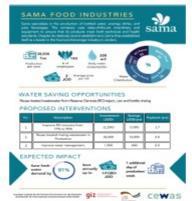




#### Market Development

- **Enabling Environment**
- **Business Case Building**







Enough about Cewas, Let's go into

### Organic Waste Business Models in Jordan

For Entrepreneurs



### Organic Waste Value Chain

#### **Near the Farm**



- Inefficient harvesting practices
- · Out-of-date machinery
- Crop damage



#### In Transit



- Poor infrastructure
- Lack of cold storage

#### **During Food Processing**



- Poor planning, outdated equipment
- · Lack of measurement and data to show hot spots
- Lack of food-handling skills and awareness

#### In Stores and Restaurants



- Poor planning and stock management
- Lack of measurement to show hot spots
- Lack of food-handling skills and awareness

#### At Home



- Lack of awareness of food waste issues
- Inefficient cooking, storage and portioning
- Poor planning; not using shopping lists or menu plans
- Poor understanding of date labels

Source



WORLD RESOURCES INSTITUTE

10's of Business Models in each stage!



## Business Model I: Organic Waste Transport



### **PROS**

#### CONS

- Easy and low Tech
- Can be started anywhere
- There will always be waste!
- Can serve different sectors

- Large Capex
- High Fuel Cost
- Tough Competition
- Low innovation potential
- Limitations for Manure!

Exists in Jordan? Yes, but mostly mixed with other SW (not specialized)



### Business Model II: Animal Feed



### **PROS**

- Easy and low Tech
- Low production cost
- Diverse feedstock alternatives

### CONS

- Geographical distribution of livestock
- Variation in livestock nutritional needs
- Livestock breeders trust

Exists in Jordan? Yes, but rarely formalized into solid and

innovative businesses



## Business Model III: Food Upcycling



#### **PROS**

- Innovative
- Can bring high margins
- Can help reduce food insecurity

### CONS

- Food quality and acceptance by customers
- Tough JFDA regulations
- Food waste Storage limitations

Exists in Jordan? Very limited but promising field



## Business Model IV: Waste to Biogas



#### **PROS**

- High value output
- Versatile biogas uses
- Scalable technology

### CONS

- R&D and system design
- Safety concerns
- Commercialization of biogas

Exists in Jordan? Rarely seen and only for small scale applications



## Business Model V - Compost Value Chain



#### **PROS**

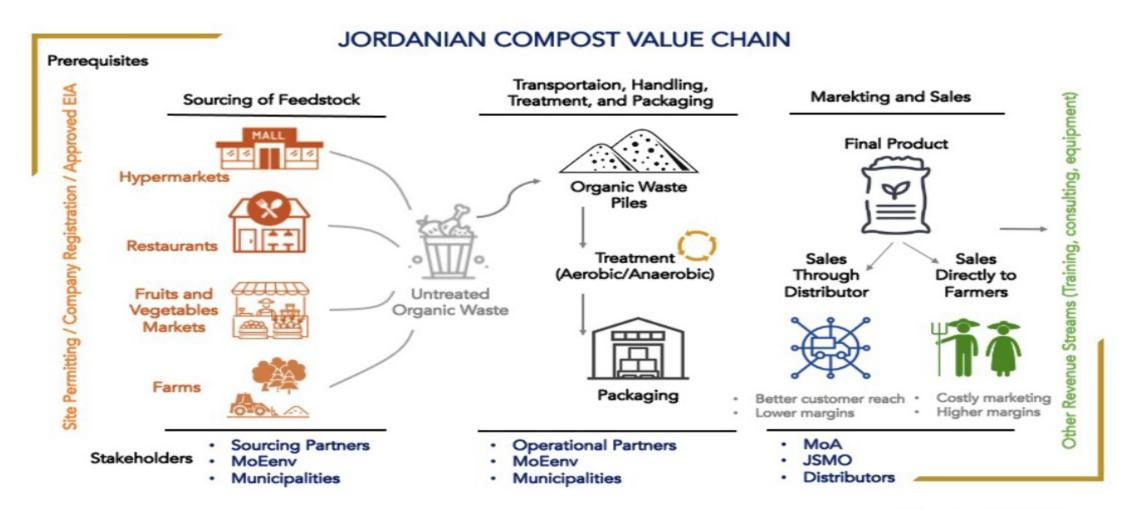
- Easy and low Tech
- Can leverage multiple feedstock types
- Scalability potential is high

### CONS

- Facility Setup
- Feedstock quality variations
- Market demand and competition
- Overall feasibility

Exists in Jordan? Widely available at different scales







No.	Stage	Туре	Barrier Description
1	Pre- requisites		Site Selection: compost production (aerobic) is classified as a high-risk activity according to the Ministry of Environment. Eligible sites need to be at 3-km distance from residential clusters which is far from organic waste generation sources (such as hypermarkets or restaurants).
2		Regulatory	EIA requirements: Comprehensive EIA for aerobic compost treatment is required by the Ministry of Environment which requires time and money and might be challenging at initiation. This applies to any new location.
3		Regulatory	Product Registration: Limits on 100% plant-based organic waste for compost products cannot be guaranteed if organic waste is collected from restaurants.



No.	Stage	Туре	Barrier Description
4		Operations	Steady Feedstock: The ability to ensure frequent and steady organic waste sourcing is limited
5	Feedstock Sourcing	Operations	Feedstock Quality: Poor feedstock quality sourced from partners affects end product quality and the economy of the project
		Human Resources	Qualified Personnel: Limitations on the ability to find highly qualified staff for operations



No.	Stage	Туре	Barrier Description
9	Marketing and Sales	Market Readiness	Lack of Awareness: of the benefits of using high-quality compost that justifies the difference in the price
10		Competition	Manure-sourced Compost: this represent the toughest competition to producers as they are produced in mass quantities and are usually subsidized by development entities
11		Financial	Cost vs. Pricing: the cost of production might be very high compared to other subsidized projects
12		Financial	Sales Streams: lack of experience in the Jordanian market limits the ability to achieve high-volume sales



## Limiting Factors to Growth in the Sector

- Quality: due to lack of sorting processes
- Policies: Transport, Licensing, and Setup
- Finance: Capex & Opex Needs
- Market: Competition with alternatives
- Biodiversity Concerns



# What is needed to Improve Market Potential

### From Entrepreneurs

- Focus on one or two value chain stages
- قِيس قبل ما تغيص! • Study your logistics well right before jumping in -مثل فلسطيني-
- Pay attention to unlikely competition

### From Ecosystem

- Business Support: Specialized coaching is key
- Policies: simplify production licensing requirements
- Finance: Understand the BM, and be patient!



### Questions!



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