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# IMMERSIVE TALKS

WITH WASTE-TO-VALUE (W2V)DOMAIN EXPERTS Overview of bioprocess engineering technologies in reducing waste and creating value by Dr. Sandeep Kale (Managing Director, QbD Purples Advanced Technologies)

(Thursday)24 Sept 2020 | 4 pm - 5 pm

All sessions will be held on an online

# Bioprocess Engineering & Technologies in Reducing Waste and Creating Value

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24th September 2020 @Venture Center, Pune



FOOD LOSSES

Example of food wastes - worldwide

FOOD LOSSES

## Majority of losses are during

- a) Fruits and vegetables
  - Agriculture and Processing
- b) Cereals
  - Post harvest, processing and distribution
- c) Oilseeds & pulses
  - Agriculture, post harvest and Processing

www.fao.org

32% of global food supply by weight 24% of global food supply by energy content (calories) Losses at production are more prevalent in developing regions while food waste at consumption is more prevalent in developed

OILSEEDS & PULSES **FOOD LOSSES** 



### Bioprocessing of Bioresources – Building Business Plan



#### 3. Business Model in Market (API, or Formula a) B2B, B2C; Contracts – traders, user indust b) Credit period (revenue management, cash

c) Market potential

d) Building new application

#### 2. Processing Plant (for API or till formulation)

- a) Process Technology and Plant Engineering (multipurpose)
- b) Equipment's and integration, piping's
- Utilities (power, steam, water etc.)
  - Effluent treatment (ZLD..?)
- QC/QA and others like maintenance etc.
- Working capital, OPEX, CAPEX
- g) Manpower (Skilled, unskilled)

#### 1. Starting Resources

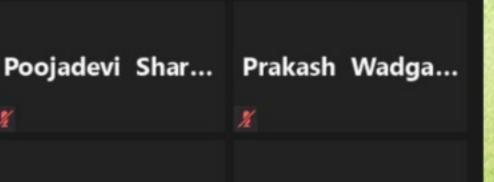
Key step .....

Mohan Kumar...

a) Sourcing of raw materials & quantity

Efficiency

- b) Transportation of raw material.?
- Organized Vs unorganized availability
- d) Stability (immediate Vs delayed processing)
- e) Cost and payment terms



**Lakshay Sethi** 

Total Number of Participants 34