

Resilient Futures COP Workshop 24 May 2019

Round table feedback: Bast fibre cultivation

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The round table session aimed to answer key questions around fibrous plants cultivation.

Seed preparation

- Fibre plants seeds such as kenaf will not grow in very dry environments
- Most fibrous plants seeds have about 80% natural germination potential and can be grown by simply throwing them into the ground. Germination can be decreased by the type of soil (especially if the soil is not at optimum conditions for specific fibrous plant grow).
- Seeds can be coated with microbes, herbicides, lime, etc, to overcome undesirable soil conditions, protect the seed and enhance germination. But this is a costly process and coating can be removed by heavy rainfall.

Factors to consider before cultivation

- Know the soil physical and chemical structures i.e. the types of soils in each layer and pH
- Find a market first before cultivation. There must be a demand for the end fibre product before growing fibre at all.
- Know all the substrates/heavy metals present in the soil as these affect the crop performance. The heavy metals will determine what type of crop can be grown. Hence it is important to know which metals a specific fibrous plant can absorb.
- Also, know the pH in the soil as the crop needs to adapt to this pH

Capital Investment

- Understand the inputs and capital required. Usually input capital for crop cultivation is 3 times more than the crop outcome.
- Most projects usually fail because of the high costs associated with maintenance. Unless the mines sponsor the crop cultivation project; it is usually not economically viable.

Suggestions

- For a large-scale project, we need to work with farmers since they know farming best. These farmers must be financially motivated by offering them a price above market price for fibre crop cultivation because of the risks.
- The mines, farmers and community must manage the project in such a way that the mine will not have a liability.
- Look into cotton since it has a deep root system and so it can bioaccumulate more metals. Cotton has a SA market already. Hemp has a market for medicinal uses.

Concluding Remark

- Mining companies are unlikely to make financial provision for a post-mining land activity as the legislature only requires rehabilitation. The government measures the success of rehabilitation by measuring the amount hectares levelled; mines do not have to re-grow vegetation on rehabilitated land as its not a legal requirement.