**The Notice of Environmental Impact Assessment (EIA), NEMA, MAKUENI COUNTY**

The Environmental Impact Assessment (EIA) report for the above proposed project is hereby made available for public examination. The project proposed by Kymiya Agricultural and Livestock Research Organization, is proposing to undertake National Performance Trials (NPTs) for Insect Resistant (Bt) Cotton, commonly referred to as Bt Cotton at Mavea, Katumani, Kimya Mawu, Barossa, Kimya, Kunka, Karuthi (Samkia) and Mamea. The following are the anticipated impacts and proposed mitigation measures:

### Risks

#### Proposed mitigation measures

**Soil Erosion**

- No excavations or clearances will be carried out in the NPT fields, except ploughing.
- Use of recommended agronomic and soil fertility management practices will help in protecting the soil.

**Permanent or temporary change in land use, land cover or topography**

- No construction of buildings or excavations will be carried out at the sites which may change the topography of the land.
- No new land will be opened as the National Performance Trials will be carried out in the existing NPT fields.

**Change in Soil Properties**

- The soil if not managed well can change in soil properties leading to low productivity. However, proper management will enhance soil quality and increase productivity.
- Soil Sampling and analysis prior to project commencement is necessary.
- Use of recommended fertilizers will avoid soil degradations.
- Efficient irrigation practices will be followed to avoid non-renewable and salinization.

**Biodiversity conservation (Herb and Fossil) and Gene Flow**

- Time and distance isolation from other cotton or related crops shall be maintained to restrict genetic exchange.
- A buffer zone shall also be provided between the Bt cotton NPTs and other cotton fields, if any.
- The proponent shall ensure proper disposal of plant materials at the end of the project to avoid pollution.

**Crop Production**

- Bollworm is a challenge to cotton production.
- This project will boost production hence income generation by averting insect pest-resistant seed which can be approved will be supplied through seed commercial.

**Livestock Production**

- No livestock animals will be involved in the project with vegetation on the river or near water bodies where rainwater off site could flow residual pesticides and fertilizer-nutrients into.

**Infrastructure**

- Minimal infrastructure e.g. infill irrigation canals will be constructed in some sites to facilitate rainfall harvesting.
- An appropriate design of the irrigation system will be done to avoid any negative impact.

**Settlement Loads**

- Where supplemental irrigation will be carried out, appropriate irrigation structure will be erected to minimize sediment loads.
- Equally no settlement loads will leave the fields under erosion-free flowing rivers.

**Malnourished and other waterborne diseases**

- No canine or bovine diseases are involved in the project. Existing farm fields shall be safe.

**Pollution - air and dust**

- Initial land preparation during the dry season may lead to minor dust pollution due to ploughing.
- However, ploughing will be done when the soil moisture is conducive to the operation.
- In subsequent farm operations, there would be minimal air pollution due to slight adherence to NHQ Regulations.

**Alcohol and Substance Abuse**

- Except during planting, weeding, and some tasks, other NPTs will be provided for Bt seed. The NPTs will only be planted on the project site. This will not promote alcohol and substance abuse.
- Project will communicate to its employees and transplants the "zero tolerance" policy to enforce in the project site.

**Human-wildlife conflicts**

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**Waste disposal**

- At the NPT plots set up on pathways, no benches or trees will be planted since the land is currently under agricultural use.
- During operations, agronomic and fertilizers can be managed. However, the project will put in place appropriate waste management plans.
- In the event, BTPMS will provide appropriate measures for the disposal of stalks, seed and fibre.

**HIV and AIDS**

- Free staff will be engaged in the project.

**Social Welfare**

- There will be minimal effect on social welfare as the NPTs will only last for a maximum of two seasons affecting minimal employment opportunities.
- However, local community will be given priority when hiring unskilled labour without discrimination, corruption or exploitation or harassment as per the laid down EIA Regulations of Conduct Policies.
- To increase awareness about Bt-Cotton, the sites will be open to the public at times agreeable with the centre management.

**Occupational Health and Safety**

- Kymiya proposes to provide guidelines on product handling and management.
- All workers on the project will be provided with an occupational health and safety kit and supplied with appropriate working e.g. mask, gloves, gum boots and first aid kits.
- Vehicle safety shall be well labelled to ensure no mix up of treatments.
- Comply with the provisions of EIA. 2002

### Notes

The full report of the proposed project applicable for inspection during working hours at:

1. The Principal Secretary Ministry of Environment and Natural Resource, NHIF Building, 12th Floor, Diani Road, Upper Hill, P.O. Box 30166-0011, NAIROBI 1
2. The Director General, Pogo Road, off Mombasa Road P.O. Box 6393-00200 NAIROBI
3. The Director General, Pogo Road, off Mombasa Road P.O. Box 6393-00200 NAIROBI 2
4. The County Director of Environment, MACHAKOS COUNTY
5. The County Director of Environment, MACHAKOS COUNTY
6. The County Director of Environment, BARISI COUNTY
7. The County Director of Environment, KISUMU COUNTY
8. The County Director of Environment, KISUMU COUNTY
9. The County Director of Environment, KISUMU COUNTY

A copy of the EIA report can be downloaded at www.nema.go.ke

NEMA invites members of the public to submit oral or written comments within thirty (30) days from the date of publication of this notice to the Director General, NEMA, to assist the Authority in the decision-making process for this project. Kindly quote ref. no. NEMA/PR/S/2/1857

Comments can be also e-mailed to dgenema@nema.go.ke

The Environment and Natural Management Authority (NEMA) has received an Environmental Impact Assessment Report for the above proposed project and project.

The proponent, Kymiya Agricultural and Livestock Research Organization, is proposing to undertake National Performance Trials (NPTs) for Insect Resistant (Bt) Cotton commonly referred to as Bt Cotton at Mavea, Katumani, Kimya Mawu, Barossa, Kimya, Kunka, Karuthi (Samkia) and Mamea. The following are the anticipated impacts and proposed mitigation measures.