Desert Locust Management

AATF 21st Century Integrated Approach for Managing the Desert Locust webinar, March 15, 2021
Yeneneh T. Belayneh, PhD, Senior Technical Advisor,
USAID/BHA/TPQ
Desert Locust – Impact Elements

• Primary habitat – remote, arid/arid semi-arid, hard to reach areas
• Massive swarms at plague/upsurge-levels
  • E.g., Dozens of plagues and upsurges from 1926 to 2021
• Climate change-induced increased frequency, intensity, range expansion
• Continued threats to food security, livelihoods, natural resources
• Reduced resource-based conflicts, etc.,
Limitations to prevention trigger campaign

- Vast and remote breeding and outbreak areas
- Weak and inconsistent surveillance and monitoring,
- Inadequate basic infrastructure, technical, and material resources
- Absence of systems for data collection and interpretation on key parameters
- Lack of adequate national strategy and contingency plan
- Lack of adequate information on DL location
- Absence of cross-border engagements
- Weak support for regional ETOP entities
What are the priorities of development partners regarding management of Desert Locusts

• Promote greater understanding of long-term sustainable approach for ETOP management
• Help build national and regional capacity and systems to manage ETOPs
• Explore means and ways to leverage skills and knowledge of countries with the capacity to manage ETOPs
• Promote and encourage strategies for strong preventive intervention
What are the priorities of development partners regarding management of Desert Locusts cont’d

- Build upon partners’ assessments and findings and develop a 5-year action plan to implement recommendations
- Increase investment in the use of new technologies for remote sensing, data collection, and improve forecasting and response
- Support evaluation of efficacy and operational requirements of commonly used tools and materials and
- Assess benefits and costs of softer [biological] pesticides
How can players enhance value for money when implementing the DL control strategies?

• Promote and support collaborations among key actors
• Encourage and strengthen south-south partnership and collaboration to share experiences, knowledge, skills and tools
• Encourage and support establishment of functional relationships with neighboring countries
• Engage private sector to develop tools and systems that can boost surveillance, monitoring and response
• Strengthen knowledge dissemination and outreach among communities
• Strengthen regional entities with mandate for emergency pest interventions
• Strengthen monitoring and evaluation system for improved ETOP management
• Promote and support robust R&D programs on DL and other key ETOPs
What strategies should Governments employ to combat recurrence of pest invasions?

• Establish national strategy and contingency plan for ETOP management
• Establish an IPM-based strategy for preventive and response
• Explore and introduce science-based, [Africa]-friendly ETOP management tools
• Strengthen existing emergency pest monitoring and control unit through material, fiscal and human resources
• Establish and institutionalize a system to improve staff and community skills and knowledge through active training
• Strengthen the capacity to improve information collection, analysis, dissemination and management
• Increase collaboration with relevant stakeholders to adopt new technologies for improved data collection, through robust surveillance and monitoring
• Strengthen capacity of regional ETOP entities
## Synoptic cost of control

<table>
<thead>
<tr>
<th>Event year</th>
<th>Country/Region</th>
<th>Cost/$M</th>
<th>Today’s value/$M*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-21</td>
<td>Eastern Africa, Yemen</td>
<td>&gt;216</td>
<td>&gt;216</td>
</tr>
<tr>
<td>2003-05</td>
<td>West Africa, EA, ME</td>
<td>&gt;570</td>
<td>&gt;806</td>
</tr>
<tr>
<td>1992-93</td>
<td>WA, EA, Red Sea</td>
<td>&gt;60</td>
<td>&gt;110</td>
</tr>
<tr>
<td>1986-89</td>
<td>Multi-regional</td>
<td>&gt;310</td>
<td>&gt;700</td>
</tr>
</tbody>
</table>

**In just 10 years from 1986-2021 Total**  
>1550/155/Y  >1832/183.2/Y

*Additional national resources expended not included

- Control operations during upsurge/plague years require costly campaign
  - Involve large-scale pesticide applications
    - Overstocked pesticides cause management and opportunity costs
  - Obsolete stocks:
    - Human health and the environmental threats
    - Costly, complicated and tedious disposal processes
    - Exacerbate economic destress