Remote Pilot and Precision Agriculture Training

![Image 1: Participants learning aerodynamics](image1.jpg)

**Figure 1:** Participants learning aerodynamics victory

![Image 2: Participants celebrating a quiz](image2.jpg)

**Figure 2:** Participants celebrating a quiz

![Image 3: Group presentation at closing ceremony](image3.jpg)

**Figure 3:** Group presentation at closing ceremony training

![Image 4: Group photo upon completion of training](image4.jpg)

**Figure 4:** Group photo upon completion of training

---

### OVERVIEW

<table>
<thead>
<tr>
<th>Flying Labs</th>
<th>Flying Labs Namibia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Lucius Sumbwanyambe Mahoto Correctional Services Training College, Omaruru, Namibia.</td>
</tr>
<tr>
<td><strong>Date</strong></td>
<td>Monday, 13 March 2023 - Friday, 31 March 2023</td>
</tr>
<tr>
<td><strong>Length (number of days)</strong></td>
<td>Eighteen (18)</td>
</tr>
<tr>
<td><strong>Sector program (optional)</strong></td>
<td><a href="#">DevRobotics</a> and <a href="#">EcoRobotics</a></td>
</tr>
<tr>
<td>Format</td>
<td>In-Person</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Co-organizer if applicable</td>
<td>United Nations World Food Programme (WFP) in Namibia</td>
</tr>
</tbody>
</table>
| SDGs              | **GOAL 2: Zero Hunger**  
**GOAL 8: Decent Work and Economic Growth**  
**GOAL 9: Industry, Innovation and Infrastructure**  
**GOAL 15: Life on Land** |

### SCOPE & OUTCOMES

| Type of training                                                                 | 1. Introductory training to drones.  
2. Technical training of professionals.  
3. Sector-specific training of professionals. |
|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Goal of the training                                                                                                           | 1. Create drone awareness.  
2. Develop drone data acquisition skills.  
3. Develop drone data analysis skills.  
4. Develop data literacy and interaction skills.  
5. Certify drone pilots.                                                                                                        |
| Expected outcome for participants                                                                                               | 1. Gaining remote drone pilot theoretical knowledge.  
2. Gaining skills and expertise in precision agriculture data collection, processing and management.  
| Confirmed outcome after training                                                                                            | As a result, participants received training on;  
1. Air Law, operational procedures and basic Remotely Piloted Aircraft System (RPAS) knowledge.  
2. Aerodynamics, principles of flight and human factors.  
3. Navigation and meteorology (weather) understanding.  
4. Mission planning, as well as data collection, processing, analysis and interpretation for action taking practice.  
5. Flight training as a combination of simulator and aircraft practice.  
6. Group project presentations that integrated the learnings |
from the training into actual daily work routines.

**Eventual next steps**

The team embarked on the following next steps:

1. Debriefing of project stakeholders.
2. Participants’ licensing by the Namibia Civil Aviation Authority (NCAA).
3. Procurement of drones, accessories, software and high-performance computers.
4. Developing a drone migratory locust scouting Proof of Concept (PoC).
5. Pushing for the adoption of drone usage in professional farming practices.
6. Training of administration and farm managers on interpreting of precision agricultural insights
7. Intermittent congregation of participants for currency activities.

**PARTICIPANTS**

<table>
<thead>
<tr>
<th>Profiles and number of participants</th>
<th>28 Staff from the Government.</th>
</tr>
</thead>
</table>
| Name of participants’ organisations | 1. Ministry of Agriculture, Water and Land Reform (MAWLR).  
| Gender ratio | 4 females (14%) : 24 males (86%) |
| Who paid for the training? | 1. Namibia Flying Labs.  
3. United Nations World Food Programme (WFP) in Namibia. |
| Participant fee rate (if applicable) | USD 1,187.95 |
| Scholarships offered? | • 6 full scholarships. |
**17 partial scholarships.**

<table>
<thead>
<tr>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training components</strong></td>
</tr>
</tbody>
</table>
| **Training resources used** | **Hardware**  
1. Apple iPads  
2. Data projector  
3. DJI Mavic 2 Pro  
4. DJI Mavic Mini SEs  
5. DJI Tellos  
6. Form gliders  
7. Shenzhen GY G7  
8. Skydio 2s  
9. Laptop computers  
10. PA system  
**Resources**  
1. Flip chart  
2. Quiz materials  
3. Training manuals  
4. Whiteboard markers  
**Software**  
1. Agisoft Metashape  
2. DroneDeploy  
3. DJI Fly  
4. DJI Go 4  
5. QGroundControl  
6. MS Office  
7. Picterra  
8. Pix4Dcapture  
9. Pix4Dfields  
10. Pix4Dmapper  
**Visual Aids**  
1. Banners |
<table>
<thead>
<tr>
<th>Approaches and methods used</th>
<th>2. Flyers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Specific focus was given to use cases in precision agriculture</td>
</tr>
<tr>
<td></td>
<td>2. The training featured a lot of practical and simulation sessions</td>
</tr>
<tr>
<td></td>
<td>3. Participants engaged in activities comprising a workflow that included, but was not limited to, data collection, processing, analysis and interpretation.</td>
</tr>
<tr>
<td></td>
<td>4. Group projects, aligned with professional backgrounds of the participants. The projects were elected, progressively built on and finally presented at the closing ceremony.</td>
</tr>
</tbody>
</table>