

An android-driven digital platform that provides information on estimated weight and prices of livestock to potential buyers and for buyers to specify their required specifications and quantities to potential sellers all to strengthen cross-border livestock marketing as a way of mitigating potential shocks like drought and insecurity

Training Guide Manual

Prepared by IGAD Center for Pastoral Areas and Livestock Development (ICPALD)

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i. Abbreviations

ICT	Information and Communication Technology
IGAD	Intergovernmental Authority on Development
ILMIS	IGAD Livestock Marketing Information System
ΟΤΡ	One Time Password
PIN	Personal Identification Number
SSL	Secure Sockets Layer
TLS	Transport Layer Security
URL	Universal Resource Locator
MVP	Minimum Viable Product
UI	User Interface

ii. Glossary of Definition of Terms and Terminologies

IGAD	Intergovernmental Authority on Development
IDAM system	Identity and Access Management System
Cache	A high-speed data storage layer which stores a subset of data, typically transient in nature, so that future requests for that data are served up faster than is possible by accessing the data's primary storage location.
User account	The user account is the basic element that allows access to the software depending on its role. A user can have several roles
Back-end	The part of the application that is not directly accessed by the user, responsible for storing and manipulating data
Front-end	The part of the application with which the user interacts directly

Dashboard	The dashboard is a collection of information specific to a role. It includes, among other things, all notifications, reports, graphs, maps and statistical information.
Geolocation	the process or technique of identifying the geographical location of a person or device by means of digital information processed via the internet.
Report	A report is a table containing information entered one module or several modules. Only validated information will appear in reports.
Graph	A graph is a graphic illustration of information entered into one module or several modules. Only validated information can be used to generate graphs.
Мар	A map shows a geographical distribution of information entered in one module or several modules. Only validated information can be used to generate maps.
Visibility	Visibility makes it possible to see, access and use a module, a report, a graph and a map for a user, a user's group and/or a user's group and all its sub-groups
The system	The application or the software

iii. Common System items

Export	Extracting data from the ILMIS backend system and sending it to an excel file
Date Filter	A calendar that is used to filter out data by selecting specific date ranges
Timestamp	The actual time registered in the ILMIS database that includes the date and the time in hours, minutes and seconds
Audit Trail	A history of every activity done on the ILMIS system by users

Portal A web page through which the ILMIS administrator backend is accessed

iv. How to use the manual

A- Introduction

The IGAD Livestock Marketing System (ILMIS) app is an android-driven digital platform that provides information on the estimated weight and prices of livestock to potential buyers and for buyers to specify their required specifications and quantities to potential sellers all with an aim of strengthening cross-border livestock marketing as a way of mitigating potential shocks like drought and insecurity.

The app applies a modern responsive design which involves designing an app that can adapt to different screen sizes and devices. This means that the ILMIS app will look and function the same way, whether it's viewed on a smartphone or tablet,

Pertaining to User experience, The ILMIS app is easy to use, with a simple and intuitive interface that allows users to quickly find the livestock they are looking for. The app also has a clear and easy-to-follow checkout process.

As the ILMIS app handles customer data and in accordance with IGAD Data Protection Policy, security has been implemented whilst building the application. Customer information stored in the database has been encrypted to protect it from unauthorized access, manipulation, or theft. Authentication and Authorization has also been implemented where every user needs a PIN to gain access. A One Time Password (OTP) is mandatory to create an account on the ILMIS app and when a customer wants to reset their PIN after forgetting it.

ILMIS data is stored on the cloud with secure TLS protocols implemented to govern transmission of the data and to ensure it is done securely.

Tests were also conducted to identify vulnerability and security gaps within the ILMIS app which were addressed and fixed by the developers

There are six main components that comprise the ILMIS app

1) Customer Onboarding

This component comprises of all the steps that users take to gain access to the ILMIS app and to use all the features.

2) In-app marketing

This component comprises of all the features built to market the ILMIS app to potential buyers and sellers

3) Buyer Process Flow

This component comprises of all the steps that a potential buyer takes to successfully make a place an order of a livestock item on the ILMIS app

4) Seller Process Flow

This component comprises of all the steps that a potential seller takes to successfully make a post a livestock item on the ILMIS app

5) Administrator Access

This component comprises of all the steps that an administrator takes to view the data on the ILMIS app

6) Chat feature

This component comprises of all the steps that a buyer or seller takes to initiate and sustain chat messages with a potential buyer or seller

All these components work together to ensure a working application

B- How to access the ILMIS app

Option 1 (For Customers)

Step 1: Visit Google Playstore <u>https://play.google.com/store/apps/details?id=com.api.icokeventures.ox</u>

Step 2: Search for ILMIS

Step 3: Click Download

Option 2 (For IGAD Staff)

Download on google drive here

https://drive.google.com/file/d/1XHn1YeEeV3Ewks_ dlWC65hHp75fTze_W/view?usp=sharing

Option 3 (For Developers Only)

You can access the ILMIS API (swagger) here

https://aplus-africa.net/swagger/index.html

A- How to set a PIN for your ILMIS wallet

Step 1: Select Create Account



Step 2: Select Country Prefix and Phone Number

99:13 کی بی ا			
We will s you	end you a one time Ir registered phone	e password to number	
+:	254 7259507	9/9	
	Get OTP		

Step 3 : Wait for the verification code to be auto detected

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Verificatio	n
We have sent you a 4 dig 254725950722. Please en	git code to ter it below.
1 2 6	9
Didn't you receive OTP? Re	esend OTP
Didn't you receive OTP? R o Verify	esend OTP
Didn't you receive OTP? R o Verify	esend OTP
Didn't you receive OTP? Ro	esend OTP
Didn't you receive OTP? Ro	esend OTP
Didn't you receive OTP? Ro	esend OTP
Didn't you receive OTP? Re	esend OTP

Step 4: Enter your own unique 4-digit PIN sent via SMS twice to confirm

Set a PIN

please set your new 4 digit PIN.

	Submit		
2	6	9	0
	Confir	m PIN.	
2	6	9	0

Step 5 : A confirmation will be received confirming you have successfully created an account



C- How to sign up as a buyer

Step 1: Select BUY once you set the PIN



Step 3 : Select the livestock item you would like to buy





Step 4 : Select the buy option once you have completed adding items to cart



Cattle

Q Location: Naivasha

Information

Description	:	Friesian
Category	:	Cattle
Weight	:	300 Kgs
Age	:	24 months
Stock Available	::	2

Similar Livestock Items



Step 5 : Provide buyer KYC details

03:07	y	٠

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←

Finish Registration to continue

You are required to fill the following additional details

Email		
First Name	Second Name	
Date of Birth	Ē	
Country of Residence	4	
National ID		
Continue		

D- How to sign up as a seller

Step 1 : Select Create Account



Step 2 : Select Country Prefix and Enter Phone Number

09:13 🕅 🚥	0.46 휷 الد الد 🕫			
09:13 🕅 🚥				
Registe	r Phone Number			
We will send your ree	you a one time password to gistered phone number			
+254	725950722			
	9/9			
	Get OTP			

Step 3 : Wait for the verification code to be auto detected

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Verification	Í
We have sent you a 4 digit 254725950722. Please ente	code to r it below.
1 2 6	9
Didn't you receive OTP? Rese	end OTP
Verify	

Step 4 : Enter your own unique 4 sent via SMS twice to confirm

Set a PIN

please set your new 4 digit PIN.

	Sut	omit	
2	6	9	0
	Confir	m PIN.	
2	6	9	0

Step 5 : A confirmation will be received confirming you have successfully created an account.

Select Sell option



Step 6 : Enter the details required to be a seller on the ILMIS app including Category of livestock, live weight, age, location, price, currency and stock quantity

03:19 У 🛅 📥	•ب¢• ^{0.00} ج∙ سا سا 50
÷	
Se You are required to fill th deta	he following additional
≔ Select Category	>
Live Weight	
Age	
Location	
Enter Price	≔ Select >
Quantity	
Conti	inue

Step 7 : Upload photos of livestock



Step 8: Preview details of seller before posting.

Select **Post** upon confirmation that details captured are correct



Category : Cattle

💡 Kwale, Kenya

Information

Description	:	Fresian Cow
Category	:	Cattle
Weight	•	300Kgs
Age	:	23 Weeks
Stock Available	:	29

Price

KES 55,000

Note We charge transactior	a small commission to facilitate all s
	Post
	Edit

E- How to reset PIN of ILMIS app

Step 1 : Navigate to the log in page and click on RESET HERE



Step 2 : Enter your phone number

14:39 ⊠ © ‱ ஒI.ul @
Verify Phone Number
Instructions will be sent to your registered phone number
+254 725
3/9
Submit

Step 3 : Wait for A One Time Pin will be sent to the registered phone number via SMS. It will also be autodetected on the Verification page

212741		

Verification

We have sent you a 4 digit code to 254725950722. Please enter it below.



Didn't you receive OTP? Resend OTP

	Vorify	
	venity	
11 A.		



14:40 🕅 🏯	© ^{0.55} 奈II (0
	Set a PIN	
plea	se set your new 4 digit PIN.	
2	5	
	Confirm PIN.	
	Submit	

Step 5 : Once you receive the prompt that your PIN has been successfully updated, log in again with the new PIN

14:41 🕅 📥 💿 🔛	💷
Vour PIN was updated successfully.	
Welcome Back	
Provide your details to log into your ac	count.
254725950722	L.
	⋳
	4/4
Continue	
Continue Forgot PIN? Reset here	

F- How to purchase livestock through ILMIS app.

Step 1 : Visit the home page where a catalogue of all livestock items appears



Step 2: Select the livestock item to purchase



Cattle

Cocation: Naivasha

Information

Description	:	Friesian
Category	:	Cattle
Weight	:	300 Kgs
Age	:	24 months
Stock Available	:	2

Similiar Livestock Items



G- How a buyer communicates with a seller

Step 1 – Select the message icon at the bottom left corner of the product page



Cattle

Q Location: Naivasha

Information

Description	:	Friesian
Category	:	Cattle
Weight	:	300 Kgs
Age	:	24 months
Stock Available	:	2

Similiar Livestock Items



Step 2: A chat interface loads giving where a buyer and seller can exchange messages

16:40	🖻 🔉 💮 M 🔹	⊙ ¹³⁶ 奈	II 🚳
÷	Mark Daem	on	
		l would lik enquire ab camel that are selling	e to bout the t you Today
9	<image/>		
9	yes it's available		
8	2 days ago Hello Francis 🙂		
	2 days ago	Hello great	Today
٢	Type Your Message	e	

H- How to view chat history

Step 1 : Select the 4th icon on the bottom right corner of the home page



Step 2: A page loads that displays all chats ordered by name.



I- How to buy multiple livestock items at once

Step 1 – Visit the homepage that gives you a catalogue of all livestock items



Step 2 : Select the first livestock item to buy



Cattle

Cocation: Naivasha

Information

Description	:	Friesian
Category	:	Cattle
Weight	:	300 Kgs
Age	:	24 months
Stock Available	:	2

Similiar Livestock Items



Step 3 : Upon clicking BUY, the item will be added in the cart indicated on the bottom right corner by the greycart icon

Go back to the home page, browse the catalogue and select another livestock item.

Upon selection of the second livestock item, the grey cart icon will show a count of 2

Repeat the same process and add as many livestock items in the cart as you wish.



Step 4 : To view all the items selected, select the grey cart icon.

You can add or subtract the number of livestock products using the $\mbox{+}$ icon on each item

To place an order, select PLACE ORDER at the bottom of this page

The total price is automatically calculated based on the number of items selected.



Total		\$187000
	Complete Purchase	

Step 5 : Select Place Order to send a notification to the seller



J- How aellers receive and view notifications

Step 1 : Once a buyer places an order for a livestock item, an alert will appear on the tray of your android phone



Step 2 : Select the notification. You will be prompted to log into ILMIS app

Once you are logged in, select the BELL icon on the top right corner of your homepage



Step 3 : A Notifications page will open that lists all the orders received from different buyers

04:02 🕅 📭	് 2.00 😞 പി പി 🗈 4
← Notificatio	ons 🔳
ORD270851	
You have a Pending Order.	02/22/2023
ORD366309	
You have a Pending Order.	02/22/2023
ORD108367	
You have a Pending Order.	02/23/2023
ORD279409	
You have a Pending Order.	02/22/2023
ORD143164	
You have a Pending Order.	02/22/2023

K- How a group/co-operative can sign up its members as sellers of livestock

Step 1 : Once the group admin creates a pin to his ILMIS app wallet, he selects the seller option



Step 2 – Under the Seller page, the admin specifies details of the seller / co-operative member

Details include their phone number and details of their stock

03:19 🎔 🖬 🔺 🤷 🖓 🖏 🖓 🖬 📶 🗐			
÷			
Se You are required to fill th deta	e following additional ils		
≅ Select Category	>		
Live Weight			
Age			
Location			
Enter Price	≔ Select >		
Quantity			
Conti	Continue		

A- How to view profile of a user

Step 1 ; Log in to your iLMIS wallet

11:39	0.00 🙃 😢	
Welcome Bad	ck	
Provide your details to log into y	our account.	
254725950722	L.	
	⋳	
	4/4	
Forgot PIN?		
Continue		

Step 2 : Navigate to the settings menu on the left panel



Step 3 : Details of your profile are viewable under settings

11:44 🕅	0.72 KB/S 🙃 III	I 💷
÷		
Dav	vid Johnson	
PROFILE		
User Name	David Johnson	>
ID Number	2345613243	>
Phone	+2547231456389	Ľ.
Country	Kenya	>
Password	Change Password	>
SETTINGS		
Payment Details		>
Language		>

L- How to capture location

Step 1 – Enable Location services on your android phone. If Location services are not enabled, ILMIS will prompt the user to activate as seen below. Once activated, ILMIS will automatically capture the co-ordinates (the latitude and longitude)

08:35	© 3.0	²⁰ रू 🐵
For a b on dev Google	etter experience, t ice location, which e's location service	urn uses . ✓
	No, thanks	ок
(+1 E	Enter Phone Numb	er
		0/9
	Get OTP	



Step 2: Also, when creating an account as a Seller, a user is requested to specify the location.

Sell You are required to fill the following additional details Image Live Weight Age Location Enter Price Image Quantity Continue)3:19 У 🛅 📥	ابر ابر چَ مُلْعَ ^µ (£8/2 م
Sell You are required to fill the following additional details Image Live Weight Age Location Enter Price Image Quantity	÷	
Select Category > Live Weight Age Location Enter Price == Select > Quantity	S You are required to fill de	ell the following additional tails
Live Weight Age Location Enter Price == Select > Quantity Continue	≔ Select Category	>
Age Location Enter Price \Rightarrow Select > Quantity Continue	Live Weight	
Location Enter Price = Select > Quantity Continue	Age	
Enter Price == Select > Quantity Continue	Location	
Quantity Continue	Enter Price	≔ Select >
Continue	Quantity	

M- How to view and filter by livestock category

Step 1: Navigate to the home page where a catalogue of all livestock items is seen



Step 2: Select the 3rd button at the bottom of the screen. A list of all categories will be displayed.

Select a category to display only livestock items in that category



N- How an administrator can access the backend

Step 1: Visit <u>https://portal.aplus-africa.net/</u>

IGAD K CPALD
Please Login to your Account.
Phone number e.g 2547
PIN
Login
Forgot Password?
New Here? Create an Account

Step 2: Enter your **PHONE NUMBER** and **PIN** you created when you created an account with ILMIS app.

U- Appendix: Terms and Conditions

Every user must accept the Terms and Conditions outlined below to be able to use the ILMIS app

08:34 © ^{0,19} 奈 யி யி மே		
Discover		
Reach over 100,000 livestock traders and farmers across Africa.		
Librar road and agreed to the Terms and Condition		
and Privacy Policy		
Create Account		
Already have an account? Log in		

Welcome to ILMIS, a mobile application designed to connect livestock buyers and sellers. These Terms and Conditions outline the rules and regulations for using the ILMIS app. By accessing and using ILMIS, you agree to be bound by these Terms and Conditions.

1) Acceptance of Terms

1.1. By using ILMIS, you agree to these Terms and Conditions.

1.2. If you do not agree to these Terms and Conditions, do not use ILMIS.

1.3. We reserve the right to change these Terms and Conditions at any time. Your continued use of ILMIS after any changes are made constitutes acceptance of the new Terms and Conditions.

2) User Accounts

2.1. In order to use ILMIS, you must register and create an account.

2.2. You agree to provide accurate and complete information during the registration process.

2.3. You are responsible for maintaining the confidentiality of your account information, including your username and password.

2.4. You agree to notify us immediately if you suspect any unauthorized use of your account.

2.5. We reserve the right to suspend or terminate your account at any time for any reason, without notice.

3) Use of ILMIS

3.1. ILMIS is a platform for connecting livestock buyers and sellers. We do not own, sell, or purchase any livestock ourselves.

3.2. We do not guarantee the quality, safety, or legality of any livestock listed on ILMIS.

3.3. Buyers and sellers are responsible for negotiating the terms of any transaction, including price, delivery, and payment.

3.4. You agree to use ILMIS in compliance with all applicable laws and regulations.

3.5. You agree not to use ILMIS for any illegal or fraudulent purpose, including but not limited to money laundering, tax evasion, or terrorist financing.

3.6. You acknowledge that we do not provide any insurance or guarantees in relation to any transactions that occur between buyers and sellers through ILMIS.

3.7. You agree to release us from any claims, damages, or liabilities arising out of or in connection with any transactions that occur between buyers and sellers through ILMIS.

4) Content

4.1. You are solely responsible for any content that you post on ILMIS, including but not limited to text, photos, and videos.

4.2. You grant us a non-exclusive, royalty-free, worldwide, perpetual, irrevocable license to use, display, reproduce, and distribute your content on ILMIS.

4.3. You represent and warrant that you own or have the necessary licenses, rights, consents, and permissions to use and authorize us to use your content in the manner contemplated by these Terms and Conditions.

4.4. You agree not to post any content that is defamatory, obscene, offensive, or otherwise objectionable.

4.5. You acknowledge that we reserve the right to remove any content that we deem to be in violation of these Terms and Conditions.

5) Intellectual Property

5.1. ILMIS and all content on ILMIS, including but not limited to text, graphics, logos, and software, are the property of ILMIS or its licensors and are protected by copyright, trademark, and other intellectual property laws.

5.2. You agree not to use any content on ILMIS in any manner that infringes on the intellectual property rights of ILMIS or any third party.

5.3. You acknowledge that we reserve the right to remove any content that infringes on the intellectual property rights of any third party.

6) Disclaimer of WARRANTIES

6.1. ILMIS is provided on an "as is" and "as available" basis. We make no representations or warranties of any kind, express or implied, regarding the use or the results of ILMIS in terms of its correctness, accuracy, reliability, or otherwise.

6.2. We do not guarantee that ILMIS will be available at all times or that it will be free from errors or interruptions.

6.3. We do not guarantee that any particular buyer or seller will be available on ILMIS or that any particular transaction will be completed successfully.

6.4. We do not endorse any particular buyer or seller on ILMIS and we do not guarantee the quality, safety, or legality of any livestock listed on ILMIS.

7) Limitation of Liability

7.1. To the maximum extent permitted by law, we shall not be liable for any direct, indirect, incidental, special, consequential, or exemplary damages, including but not limited to damages for loss of profits, goodwill, use, data, or other intangible losses, arising out of or in connection with your use of ILMIS.

7.2. You acknowledge that your use of ILMIS is at your own risk.

7.3. We shall not be liable for any errors, omissions, or inaccuracies in any content on ILMIS.

7.4. We shall not be liable for any damages resulting from any transactions that occur between buyers and sellers through ILMIS.

8) Indemnification

8.1. You agree to indemnify and hold us harmless from any claims, damages, or liabilities arising out of or in connection with your use of ILMIS or your breach of these Terms and Conditions.

9) Termination

9.1. We may terminate these Terms and Conditions and your access to ILMIS at any time, for any reason, without notice.

9.2. Upon termination, your account and all content associated with it will be deleted.9.3. The provisions of these Terms and Conditions that by their nature should survive termination shall survive, including but not limited to the provisions regarding indemnification, intellectual property, and limitation of liability.

10) Governing Law

10.1. These Terms and Conditions shall be governed by and construed in accordance with the laws of [insert applicable jurisdiction].

11) Dispute Resolution

11.1. Any disputes arising out of or in connection with these Terms and Conditions or your use of ILMIS shall be resolved through binding arbitration in accordance with the rules of [insert applicable arbitration institution].

12) Miscellaneous

12.1. These Terms and Conditions constitute the entire agreement between you and ILMIS and supersede all prior agreements and understandings, whether written or oral.12.2. If any provision of these Terms and Conditions is found to be invalid or unenforceable, the remaining provisions shall remain in full force and effect.12.3. Our failure to enforce any provision of these Terms and Conditions shall not be deemed a waiver of such provision.

By using ILMIS, you agree to these Terms and Conditions. If you do not agree to these Terms and Conditions, do not use ILMIS.

V- Appendix: Privacy Policy

Every user must accept the Privacy Policy outlined below to be able to use the ILMIS app

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Discov	er	
Reach over 100,000 livest farmers across	tock traders and Africa.	
-		
I have read and agreed to t	the Terms and Conditior	
and Privacy Policy		
Create Account		
Already have an acco	unt? Log in	

We take your privacy seriously and are committed to protecting your personal information. This Privacy Policy explains how we collect, use, and disclose your personal information when you use the ILMIS app.

- 1) Information we collect When you use the ILMIS app, we may collect the following information from you:
- Personal information: such as your name, email address, phone number, and location.
- Transaction information: such as the products you buy and sell through the app, payment information, and shipping information.
- Technical information: such as your IP address, device type, and browser type.
- 2) How we use your information

We use your personal information to:

- Facilitate your use of the ILMIS app.
- Connect buyers and sellers of livestock.
- Process transactions.
- Communicate with you about the app and our services.
- Improve the app and our services.
- 3) How we share your information

We may share your personal information with third-party service providers who help us operate the app and provide our services. We may also share your information with law enforcement authorities, government officials, or other third parties when we are legally required to do so.

4) Your choices

You can choose not to provide us with certain information, but this may limit your ability to use some of the app's features. You can also delete your account and personal information at any time by contacting us.

5) Security

We take reasonable measures to protect your personal information from unauthorized access, disclosure, alteration, and destruction. However, no method of transmission over the internet or electronic storage is 100% secure, and we cannot guarantee absolute security.

6) Changes to this Privacy Policy

We may update this Privacy Policy from time to time, and the most current version will be posted on the app. If we make material changes to the policy, we will notify you by email or through the app.

7) Contact us

If you have any questions or concerns about this Privacy Policy, please contact us at [insert contact information].

By using the ILMIS app, you agree to the terms of this Privacy Policy.