Digital solutions

Meng Sakphouseth
IFAD Programme in Cambodia
Structure of the presentation: 15mn

Policy Framework (3mn)

Country Context (2mn)

IFAD Intervention (5mn)
Response to COVID 19 (5mn)
COUNTRY CONTEXT

STATISTICS
- 15.2M Population
- 6 Mobile Operators (3 share > 90%)
- 36 Internet Service Provider
- 50,000+KM Land Fiber Optical Network

PENETRATION
- 117% Mobile Subscription
- 0.52% Fixed-line Subscription
- 84% Internet Subscription
- 10% Household Broadband
- 45% Farmer has Smartphone

SOCIAL MEDIA
- Facebook: 9M, 60% users
- YouTube: 1.9M users
- Instagram: 720K users
- TikTok: 500K users
- LinkedIn: 330K users
- Twitter: 200K users

DIGITAL ADOPTION INDEX

Digital Adoption Index (and sub-indexes), relative to world average

Source: World Bank, 2018
STATUS OF CAMBODIA’S DIGITAL ECONOMY

Domestic e-Commerce

- 6%
- $6.4m

90% Fly Ticket
10% Online Shopping
Cash on Delivery (cannot capture)

E-COMMERCE

0.51% of GDP

Cross-border e-Commerce

- 94%
- $106.4m

21.2% Electronic Equipment
20.9% Tourism Companies
16.9% Online Platform
7.6% Online Shopping
6.7% Social Network
26.7% Others

Source: Ministry of Economy and Finance, 2018
POLICY FRAMEWORK

National Strategic Development Plan 2019 – 2023 embraces the Digital Economy

Cambodia is lower-middle-income country.

Development of a long-term strategic framework for digital economy.

Cambodia Vision 2050
Become a high-income country.

Cambodia Vision 2030
Become an upper-middle-income country.
Long-term strategic framework for digital economy:

**Strategic Thrusts**

A sizable digital economy to be one of the growth drivers

- **Phase 1:** Digital Foundation
- **Phase 2:** Digital Adoption
- **Phase 3:** Digital Transformation

**20 years time frame**

**Strategic Thrusts**

- **Digital Infrastructure**
- **Digital Trustworthiness**
- **Digital Citizen**
- **Digital Government**
- **Digital Business**
STRATEGIC THRUSTS

DIGITAL INFRASTRUCTURE
- Digital connectivity
- Digital payment infrastructure
- Logistics and last-mile delivery

DIGITAL GOVERNMENT
- Digital key enablers
- Public service digitalization
- Data-driven governance

DIGITAL BUSINESS
- SMEs go digital
- Startup and entrepreneurship ecosystem
- Digital value chain

DIGITAL CITIZEN
- Digital leaders
- Digital talent pools
- Digital citizens

DIGITAL TRUSTWORTHINESS
- Laws and regulations
- Regulators and Institutional capacities
- Raise security awareness
3 Phases: 20 years timescale

**Lower Middle-Income Country**

**PHASE 1:** 2021-2025
- **DIGITAL FOUNDATION**
  - Build digital infrastructure and key enablers.

**PHASE 2:** 2026-2030
- **DIGITAL ADOPTION**
  - Government, business and citizens are ready to mass adoption and consumption of digital services.

**PHASE 3:** 2031-2040
- **DIGITAL TRANSFORMATION**
  - Transform into a digital society and reap the benefit of a digital economy driven by technology and innovation.

**Upper Middle-Income Country**

**PHASE 3:** 2031-2040
- Transform into a digital society and reap the benefit of a digital economy driven by technology and innovation.

**High-income country**

2050

Industrial Revolution 4.0
KEY TARGETS

**PHASE 1: DIGITAL FOUNDATION**

**HIGH-SPEED INTERNET**
Up to 10Mbps covering 100% of downtown and 70% rural areas.

**KEY SERVICE ENABLERS**
Establish E-ID, PKI, Payment Gateway, Local Internet Exchange, Postal Address, etc.

**PUBLIC SERVICE DIGITALIZATION**
Digitalize main public services and establish interoperability platform for data sharing.

**DIGITAL LAWS AND REGULATIONS**
Update and enact essential laws.

**ICT SKILLS AND TALENTS**
Embed into formal education; build and enlarge talent pool.

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**PHASE 2: DIGITAL ADOPTION**

100%
Main public service digitalization

60%
Digital literacy and Capability

70%
Digital adoption by firms

4%
Employment in ICT workforce

30%
Socio-economic transactions
KEY TARGETS (Cont.)

PHASE 3: DIGITAL TRANSFORMATION

SIZABLE DIGITAL ECONOMY
5-10% OF GDP is visible by digital economy

EMERGING NEW LOCAL BUSINESSES
Innovative service industries, smart factory,

SPECIALIZED-SKILL WORKFORCE
Big data, analytics, AI, IoT, VR, AR, robotics,
   etc.

SMART CITY
At least one urban city is transformed into a smart city

TOWARD Industrial Revolution 4.0

TOWARD CAM VISION 2050
Moving toward a high-income country

DIGITAL SOCIETY
Harmonized and prosperous digital society
IFAD Intervention

Goal: Support the long-term strategic framework of the Cambodian digital economy

Objective: Promote the innovative digital services to smallholder farmers and rural economy.
Collaboration with Techo Start Up Center

An entity established under an innovation arm of MEF. Supercharge of digital ecosystem and innovation.

1. Long term strategic framework of the digital economy
2. National outreach campaign on digital literacy
3. Testing the challenge fund facility
4. Development of Khmer Agriculture Suit (KAS)
Overview of Khmer Agriculture Suite (KAS)

- Build an open platform for digital agriculture value chain
- Digitally connect all segments of relevant stakeholders
- Public and Private Partnership model in digital agriculture value chain
- Big data driven approach
- Composed of Core Platform and Key Applications
**CORE PLATFORM**

- Continuously collect and analyze data from various sources by means of automation and semi-automation.
- Utilizes cutting-edge AI techniques with crowdsourcing data to leverage the accuracy of the prediction.
- Provides real time information necessary for key applications to run on: weather, temperature, precipitation, soil, price, etc.
KEY APPLICATIONS

Farmer Credit Scoring for Loan

Resource Supply

Logistics & Traceability

Marketplace

Innovation Ring for Startups
- Uber for machineries
- Smart agriculture
- Drone for fertilization
- Smart irrigation
- Disease doctor
- Etc.

Digital Payment

Core Platform
Collect and Analyze Data

KAS-TRUST
A credibility platform for rating performance of stakeholders.

KAS-MARKET
Direct farm to food retail initiative.

KAS-FRESH
A platform connecting farmers to consumers.

KAS-KONTRA
Smart contract between suppliers and farmers.

KAS-TRACK

KAS-WALLET
A digital wallet for trading on the platform.

KAS-AI
Recommendation on crop planning, risk analysis, market, etc.

KAS-BOOK
Digital technology to grow farmer’s economic, social and human capital.

Social Network and Capacity Enhancement for Entrepreneurs/Farmers
SPECIFIC RESPONSE TO COVID 19
In collaboration with Ministry of Agriculture Forestry and Fisheries / Bronx Technology
App is developed by Korean fund and was redesigned to respond to the movement restrictions and physical distance.
CORE FUNCTIONS

- Get updated news related to their business;
- Early warning system;
- Technical material
- Access to technical experts through integrative platform
- Access to buy production inputs
- Access to virtual market to sell their products
- Understand the profitability of their business
- Mainstreaming material: COVID 19, CC, Gender
EARLY WARNING SYSTEM

Weather
- Weather forecasting for upcoming rain and storm up to 10 days
- Using Open Weather API
- In App notification alert
Technical Documents

• To provide best farming practice knowledge via video and ebook
• Share success stories of other model farmers
• Resources are provided through MAFF Agriculture Extension Portal
Buy Input Supply

- To find and buy input supplies such as seeds, fertilizers, farming materials through our trusted suppliers
- Rate suppliers and recommend for other farmers
List Product for Sale

• To list agriculture product for sale through our Chamka Grocery App
• Accept purchase request through the app
Direct Contact to Agriculture Experts

- Farmers able to ask and chat directly with the experts that are always online to help for any questions.
- Using Chat technologies, farmers can send text, images, videos and voice call directly to the experts for free as long as they have internet connection.
- Notification is used for upcoming messages.
Record Farming Activities

- Record and track activities such as expense and revenue
- Basic financial analysis for top expense categories
- Basic analysis for profitability
- Access to credit line
Want to try?
iOS and Android: Chamka
And login with this phone number: 012928093, PW: 123456
Future Roadmaps

• Early warning system
• Integrated AIs
• Trial testing of ATM Card & Digital Wallet
• Trail testing money transfer facility
• Traceability and branding
• Renting Agriculture Machinery
• Soil micro-organism improvement
• Income generation stream
THANK YOU!

Questions and Comments are welcome!