KEYNOTE PRESENTATION

MARKET DYNAMICS IN BANGLADESH, NEPAL, RUSSIAN FEDERATION AND VIET NAM

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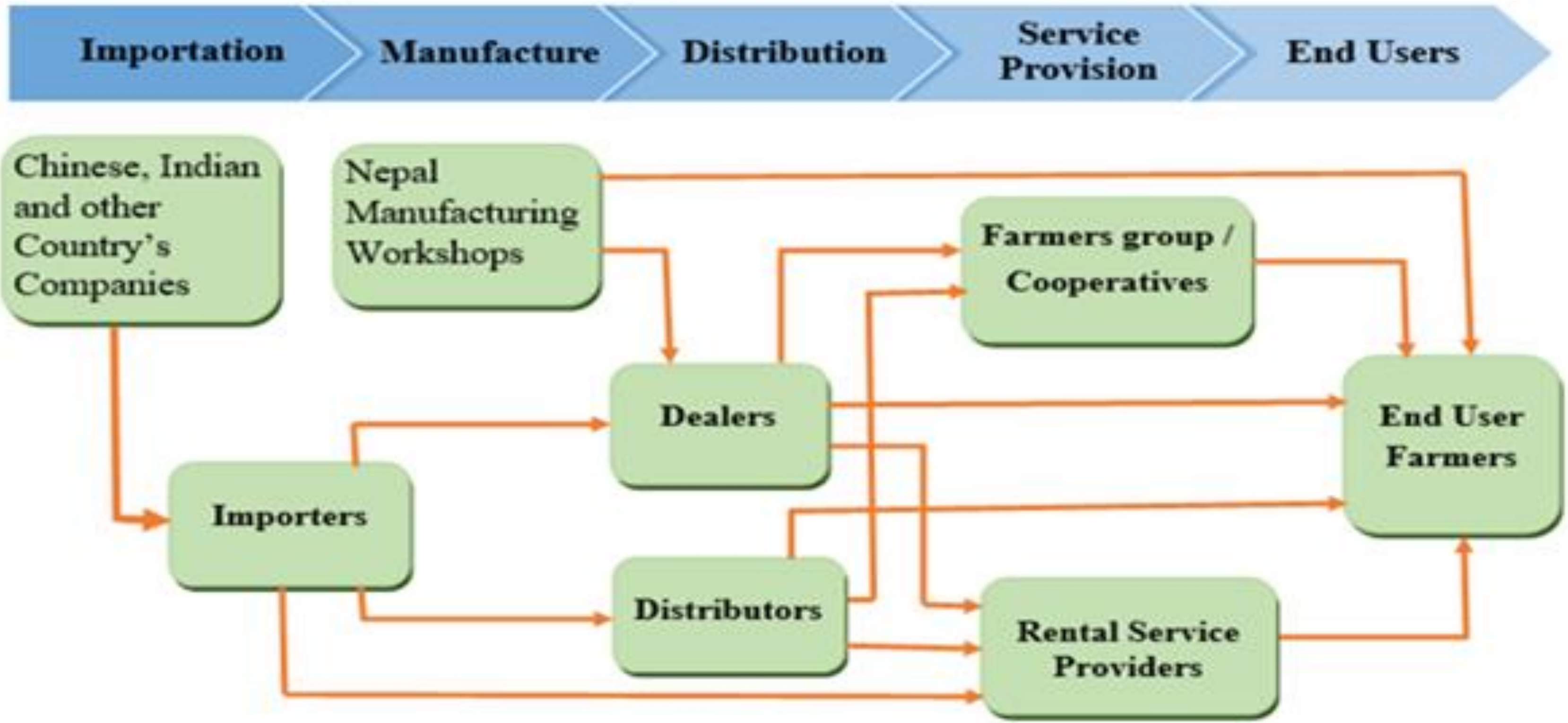
Outline:

- Background information
  - Scope
  - Framework
  - Objectives
  - Methodology
- Main Findings & Conclusions – SWOT
- Recommendations

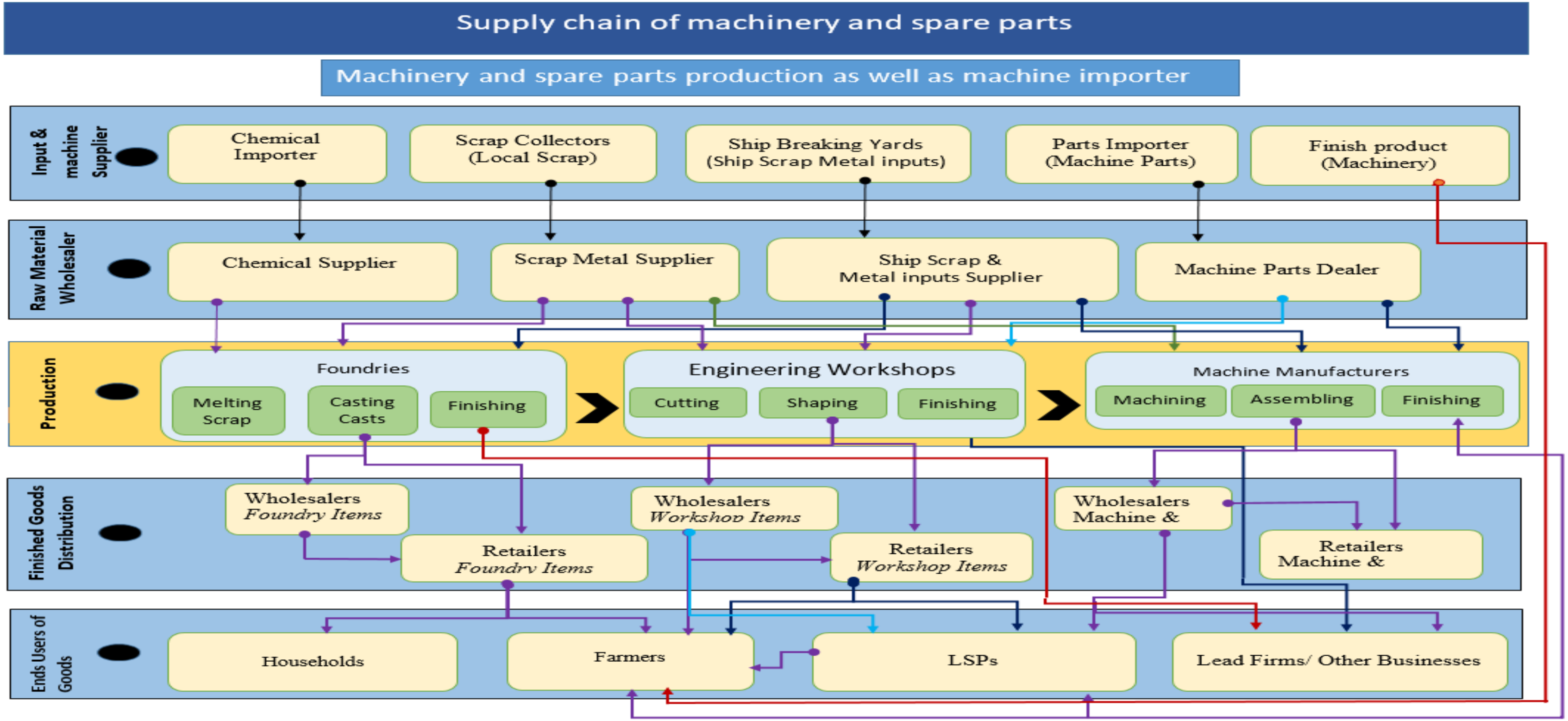
Basic information

Countries	Major Field Crops	Agri. Machinery Market, 2021 (Billion US$)
Bangladesh	Rice, Wheat, Jute and Rape & Mustard	1.28
Nepal	Rice, Maize, Wheat and Sugarcane	0.06
Russian Federation	Wheat, Sugar beet, Potatoes and Cereals (Maize, Barley and Oats)	5.30
Viet Nam	Rice, Maize, Sugarcane and Groundnut	0.53

Supply Chain: NEPAL



Supply Chain: Bangladesh



Main Findings:

SWOT ANALYSIS

Strengths 1/3

Supply Chains

- Well-structured and established
- Marketing mechanization technologies
- Identifying future technologies
- Linking with financing institutions

Strengths 2/3

Custom Hiring Services

- Benefitting even smallholders
- High-capacity & multi-featured machinery
- Skillful in operation and R&M of complex machinery
- End-users relieved of ownership costs

Dealer Networks

- Small-medium sized available
- Supply, Service and Spares

Subsidies

- Triggered mechanization pace
- Nepalese stakeholders skeptical once withdrawn (hill farming)

Strengths 3/3

Mechanization level

- High, almost 3rd /final (Russian Federation)
  - * Field crops and Livestock
  - * Poultry (most mechanized & automated)
  - * High-capacity Machinery
  - ✓ 60% cropped area – Commercial farming
  - ✓ 30% cropped area – Entrepreneurial farming
  - ✓ Food Secure – Grain, meat, vegetable oil & fish meal (FS Doctrine 2020)
- Medium, 2nd (Bangladesh & Viet Nam) while Nepal nearing

Minimum Support Price

- All 4 countries (safe-guard against price decline and crop failures)
- Russian Federation – agri. risk insurance portfolio

Weaknesses 1/2

Inefficient machinery use hampering farm profitability

- low productivity
- high operating including timeliness costs

Russian Federation machinery in use (> 10 years old)

• Grain harvesters	59%
• Forage harvesters	60%
• Tractors	68%

- Limiting global competitiveness of the Russian food

3 Rice Producing Countries (RPCs) – 'Picture as a whole'

- Low mechanization level in:
  - > Paddy stand establishment (except Viet Nam, 65%)
  - > Crop management and harvesting (non-paddy segment)
  - > Horticulture and value addition

Weaknesses 2/2

- **Low credit worthiness of smallholders**
  - High-risk clients (nature & market)
- **Dearth of financial outlays for smallholders**
- **High financing cost**
- **Low capacity of Industry and end-users in:**
  - Business management skills
  - Technical skills

Opportunities 1/2

- **'Agriculture' holds high potential for Food Security**
  - Primary production
  - Value chain
  - Mechanization
- **'Transform' Agriculture from**
  - ✓ High-input, high-output, low efficiency & unsustainable development mode **to**
  - ✓ High-yield, good quality, high efficiency, eco-system friendly & food securing one
- **Precision Agriculture and Smart Farming**

Opportunities 2/2

- **Resource use consolidation through policy instrument**
  - Subsistence & small-scale segments
    - ✓ 90% world's small farm holders (<2ha) in Asia-Pacific
    - ✓ Majority of small farm holders (around 1 ha) in Asia
- **Target semi-commercial agriculture**
- **Remittance inflows especially from oil-rich Gulf**
- **Target high-end markets**
- **Global competitiveness enhancement (GAP and Bilateral Trade Agreements)**
- **High value agriculture + industrialization (Viet Nam & Nepal!)**

Threats

- **Fast-emerging marginalized & fragmented smallholders (<1ha)**
  - Scale-appropriate machinery
  - Low quality & spare parts availability challenge
- **Urbanization trend of youth in all 4 countries**
  - ✓ Leaving agriculture to aging labour and women
  - ✓ Labour shortages
  - ✓ High wages
  - ✓ Farm profitability decline
- **High farm energy costs**
- **Degrading natural resource base**
- **Pandemic**
- **Climate Change - extreme events & shifting weather patterns**

RECOMMENDATIONS

Russian Federation

(Advanced Food Security and Mechanization Levels)

- Gradual replacement of 10 years old machinery with regular servicing and replenishment plans
- Enhancement of State subsidy, preferential leasing & loan programs
- Quality enhancement of local machinery through manufacturing technology and HR upgradation
- Sharpen focus on vegetable production mechanization & value addition

Bangladesh, Nepal & Viet Nam 1/3

Public Sector

- Land consolidation and mechanized farming
- Enabling environment creation for rural entrepreneurships by educated youth
- Establishment of Common Facility Centres in industrial hubs for quality machinery production and indigenization of imported ones
- Smart subsidy for machinery access through ownerships and rentals
- Tax holiday for FDI in establishing JVs for quality machinery production
- Discounts on energy tariffs for agricultural machinery production

Bangladesh, Nepal & Viet Nam 2/3

- Valuing equally voices of technologists, manufacturers and end-users in R&D for swift commercialization
- Small-scale machinery development for hill farming and women
- ICT and Satellite-based interventions (Robots & Drones)
- Capacity building of industry in business management & technical skills

- **Private Sector**
  - Enhance interactions among industry, R&D and academic institutions
  - Capitalize on auto-vending industry for critical parts development and venturing into high-end markets

Bangladesh, Nepal & Viet Nam 3/3

- Upgrade business management systems of importers & distributors
- Capacity building of dealers by imparting hands-on quality trainings
- Facilitate R&M beyond warranty periods for timely, quality and cost-effective services (transplanters, combines in Nepal)
- Promote multi-brand dealer centres (Russian Federation and Nepal!)
- Capacity-building in technical and business management skills of mechanization services providers and farmers

Thank you!