SS1 Agricultural Science – Week 2

Topic: Problems of Agricultural Development and Possible Solutions

Overview

Agriculture in Nigeria and many developing countries faces several challenges that limit its growth and efficiency. For a country to develop a strong and productive agricultural sector, these challenges must be understood and tackled with practical solutions.

1. Problems of Agricultural Development

A. Land Tenure System

- Meaning: The system by which individuals or communities own, inherit, or lease land.
- Problem: Most lands are owned through inheritance or customary systems, making it hard for modern farmers to access large, secured plots for commercial farming.
- **Effect**: Limits large-scale farming and discourages investment in land improvement.

💡 Example: A young graduate wants to start a commercial cassava farm but cannot get secure land because of family land disputes.

B. Lack of Basic Amenities

- Problem: Poor or absent rural infrastructure—such as water, electricity, roads, and healthcare.
- Effect: Farmers in remote areas struggle to live comfortably or transport goods, which discourages agricultural activity.

C. Insufficient Finance/Credit Facilities

- Problem: Most farmers lack access to loans, grants, or affordable credit to expand their farms.
- Effect: Farmers use outdated tools and can't afford fertilizers, quality seeds, or irrigation systems.

D. Poor Transportation Network

- Problem: Many farms are located in rural areas with bad roads or no access roads.
- **Effect**: Farm produce gets **spoiled** before reaching markets, or farmers are forced to sell at low prices.

E. Inadequate Storage and Processing Facilities

- Problem: Lack of silos, warehouses, and processing plants for crops like grains, fruits, and vegetables.
- Effect: Leads to post-harvest losses—up to 40% of perishable goods are wasted.

Example: Tomatoes harvested in Benue rot before reaching Lagos due to lack of cold storage or fast transport.

1 F. Low Agricultural Education and Extension Services

- **Problem**: Farmers often lack **modern knowledge** about improved farming practices.
- **Effect**: Yields are low, pest control is poor, and farmers resist innovations.

Extension officers are supposed to teach farmers about new seeds, soil testing, fertilizer application, etc.—but there are too few of them.

G. Lack of Modern Tools and Machinery

- Problem: Most farmers still use hoes and cutlasses instead of tractors, planters, or harvesters.
- Effect: Farming becomes labor-intensive, slow, and unproductive.

H. Scarcity of Farm Inputs

• **Problem**: Quality inputs like improved seeds, fertilizers, herbicides, and pesticides are expensive or unavailable.

• Effect: Crops suffer from pests and diseases; yields remain poor.

1. Poor Marketing System

- Problem: Farmers don't have organized markets to sell their goods at fair prices.
- Effect: Middlemen cheat farmers; prices are unstable; profits are low.

J. Environmental Problems

- Problem: Issues like soil erosion, deforestation, climate change, and flooding damage farmland.
- Effect: Land becomes less fertile; production drops.

2. Possible Solutions to Identified Problems

A. Land Reform Policies

- The government should **review and modernize land tenure systems** to make land **easier to access**.
- Encourage leasehold and land registration for security.

B. Rural Development

- Provide basic infrastructure (roads, electricity, water, health centers) in farming communities.
- Encourage youth retention in rural farming areas.

C. Provision of Agricultural Loans and Grants

- Create low-interest agricultural banks or credit schemes.
- Support youth and women with startup funds for agribusiness.

D. Improved Transport System

- Construct rural roads, bridges, and railway links.
- Subsidize the **cost of transporting produce** to markets.

✓ E. Establish Storage and Processing Units

- Build **public silos, cooling centers**, and **food processing industries** close to farms.
- Train local entrepreneurs in **value addition** (e.g., turning tomatoes to paste).

F. Expand Agricultural Education and Extension Services

- Train more **agricultural extension officers** to work with rural farmers.
- Organize workshops and radio/TV programs to educate farmers.

G. Mechanization of Agriculture

- Provide tractors and machinery through cooperatives or government schemes.
- Offer subsidized hiring services for smallholder farmers.

H. Availability of Inputs

- Distribute quality seeds, fertilizers, and agrochemicals at subsidized rates.
- Monitor and regulate the distribution system to prevent corruption.

I. Strengthen Agricultural Marketing

- Create organized commodity markets and price boards to ensure fair pricing.
- Encourage cooperative marketing so farmers can sell in groups and bargain better.

J. Environmental Protection Policies

- Promote afforestation, contour farming, mulching, and organic practices.
- Implement flood control and irrigation systems in drought-prone areas.

Summary Table

Problem	Solution			
Land tenure issues	Land reforms, lease policies			
Lack of amenities	Build rural infrastructure			
Inadequate finance	Loans, grants, cooperative funding			
Poor roads/transportation	Construct farm-to-market roads			
Storage & processing challenges	Build silos, cooling systems, and factories			
Low education and extension	Train and deploy extension agents			
Lack of farm tools and machinery Government support for farm mechanization				
Scarce farm inputs	Subsidized and quality-assured input supply			
Unorganized markets	Market cooperatives and price control systems			
Environmental degradation	Environmental conservation and climate policies			

Conclusion

For agriculture to thrive in Nigeria and other developing countries, these **structural**, **financial**, **and educational problems** must be **addressed systematically**. Both the **government and private sector** must invest in:

- Infrastructure
- Education
- Credit
- Technology

This will ensure food security, reduce poverty, and boost national development.