

# **Agricultural and Natural Resources Development and Management Strategy**

**International Conference On  
Roles of Nepali Diaspora in Higher Education in Nepal  
July 7-8, 2018, Toronto, Canada**

**Durga D. Poudel, Ph.D.**

**Founding President of Asta-Ja USA**

**Professor and Assistant Director of School of Geosciences  
University of Louisiana at Lafayette, Louisiana, USA**

# Nepal Vision 2040

(At the par of a developed nation)

## Challenges

Poverty, Negative Balance of Trade, Outstanding Public Debt, Foreign Aid Dependency, Implementation Failures, Massive Outmigration for Foreign Employment, GDP Growth Rate, Natural Disasters, Environmental Degradation, Energy



## Assets

### Asta-Ja

(Jal, Jamin, Jungle, Jadibuti, Janashakti, Janawar, Jarajuri, Jalabayu)

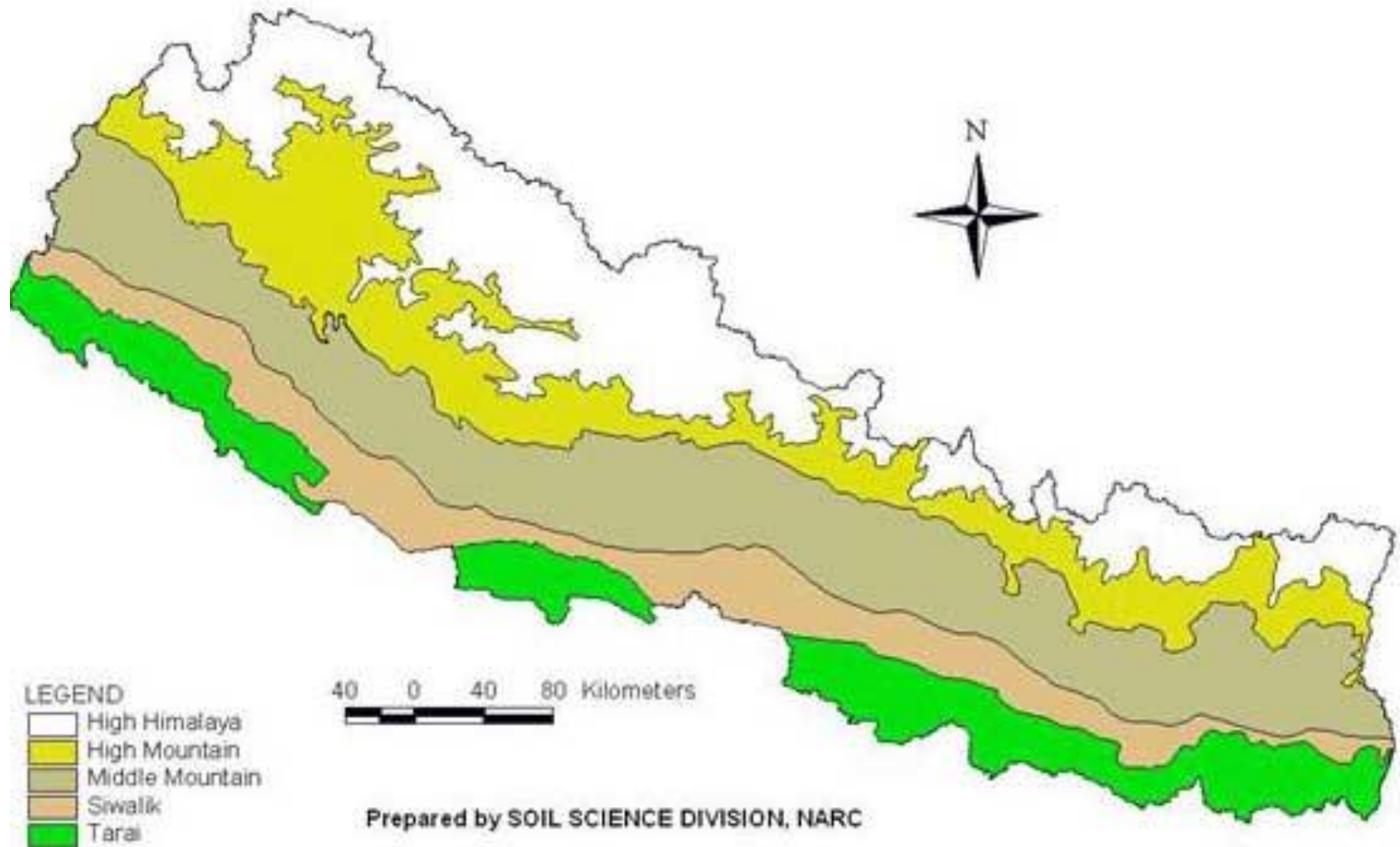


## Vision

1. Food self-sufficiency,
2. Reliance on renewable resource energy,
3. Thirty million tourists annually,
4. Export of organic foods, medicinal and aromatic plants, and other products;
5. Corruption control,
6. Infrastructural development,
7. Community resiliency,
8. Social services;
9. Asta-Ja resource conservation, utilization and development

(Poudel, D.D. 2018. Restructuring National Planning Commission Focusing on Asta-Ja and Nepal Vision 2040, *Asian Profile*, Vol. 46, No. 2., 151-167)

# Physiographic Regions of Nepal

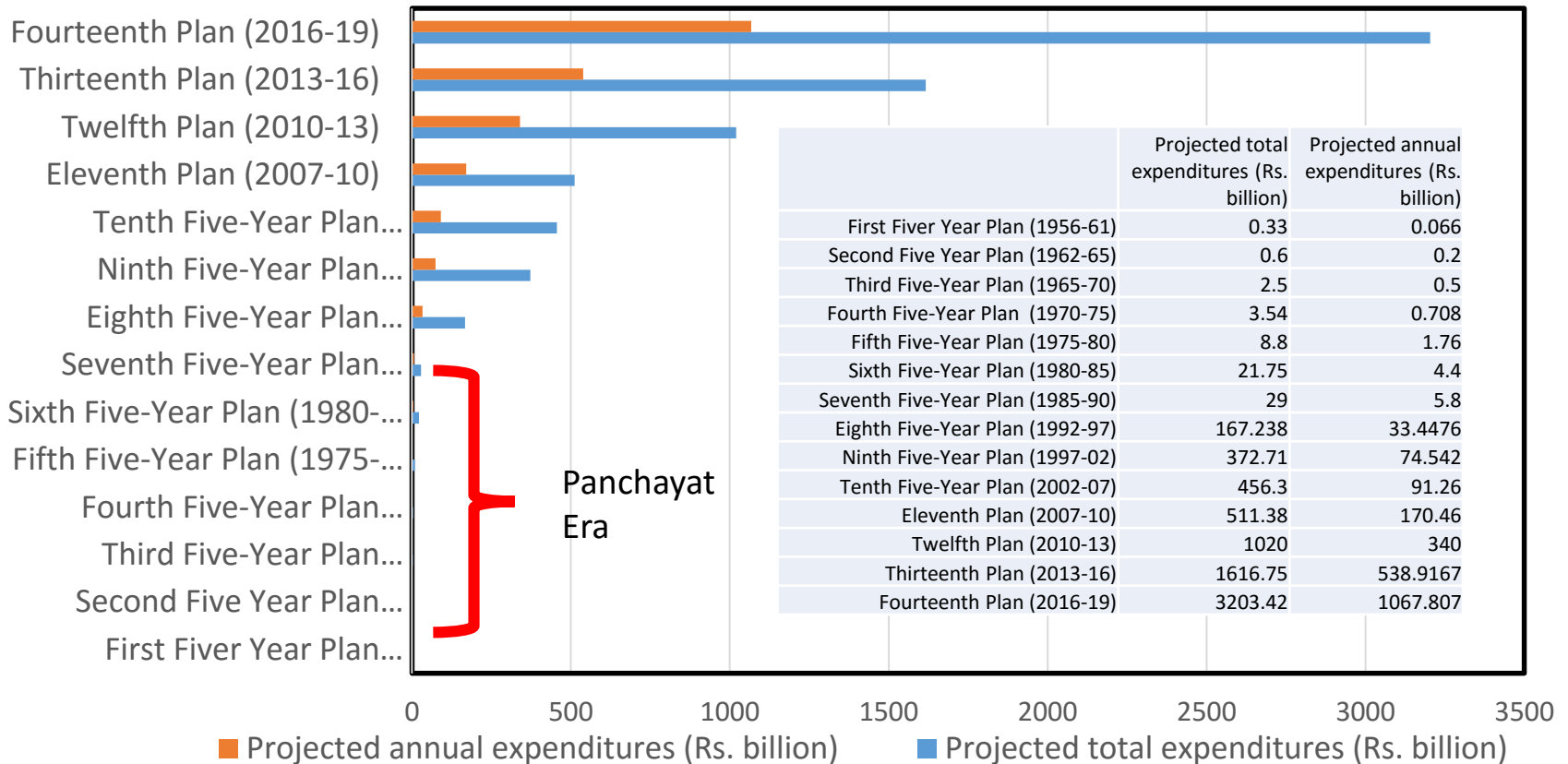


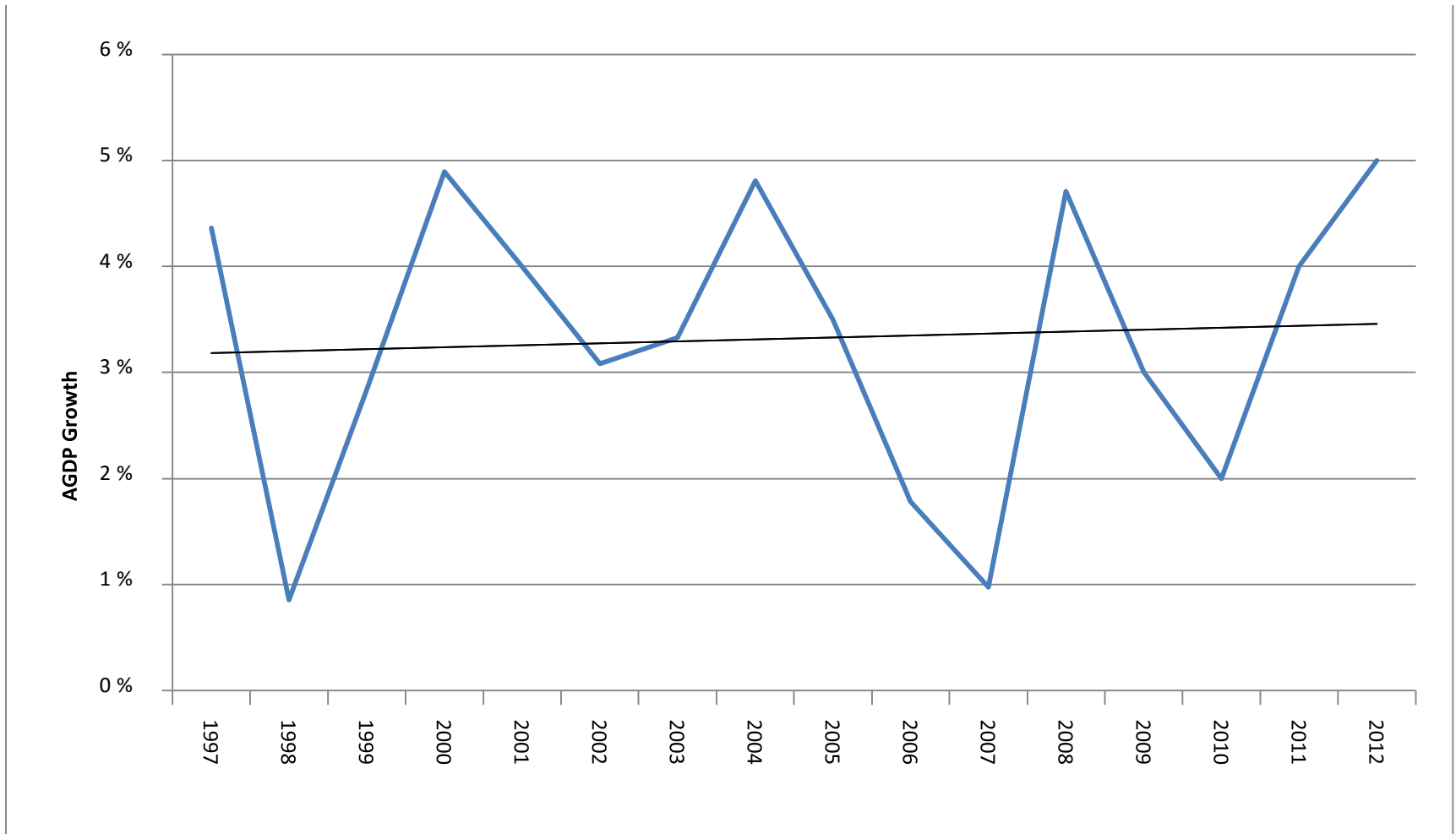
<https://www.expeditionsnepal.com/wp-content/uploads/2016/11/physiographic-map-of-nepal.jpg>

## HISTORICAL PERSPECTIVE

- Establishment of *Krishi Adda*, 1921
- Department of Agriculture, 1952
- Five Year Plans, 1956
- Ministry of Agriculture and Irrigation, 1974
- Government decision to strengthen Cooperatives, 1991
- Ministry of Agriculture and Cooperative, 1999
- Ministry of Agriculture, Land Management and Cooperatives, 2018
- APP, ADS
- Multilateral and bilateral agencies, INGOs, NGOs

## Periodic Plans and Projected Expenditures

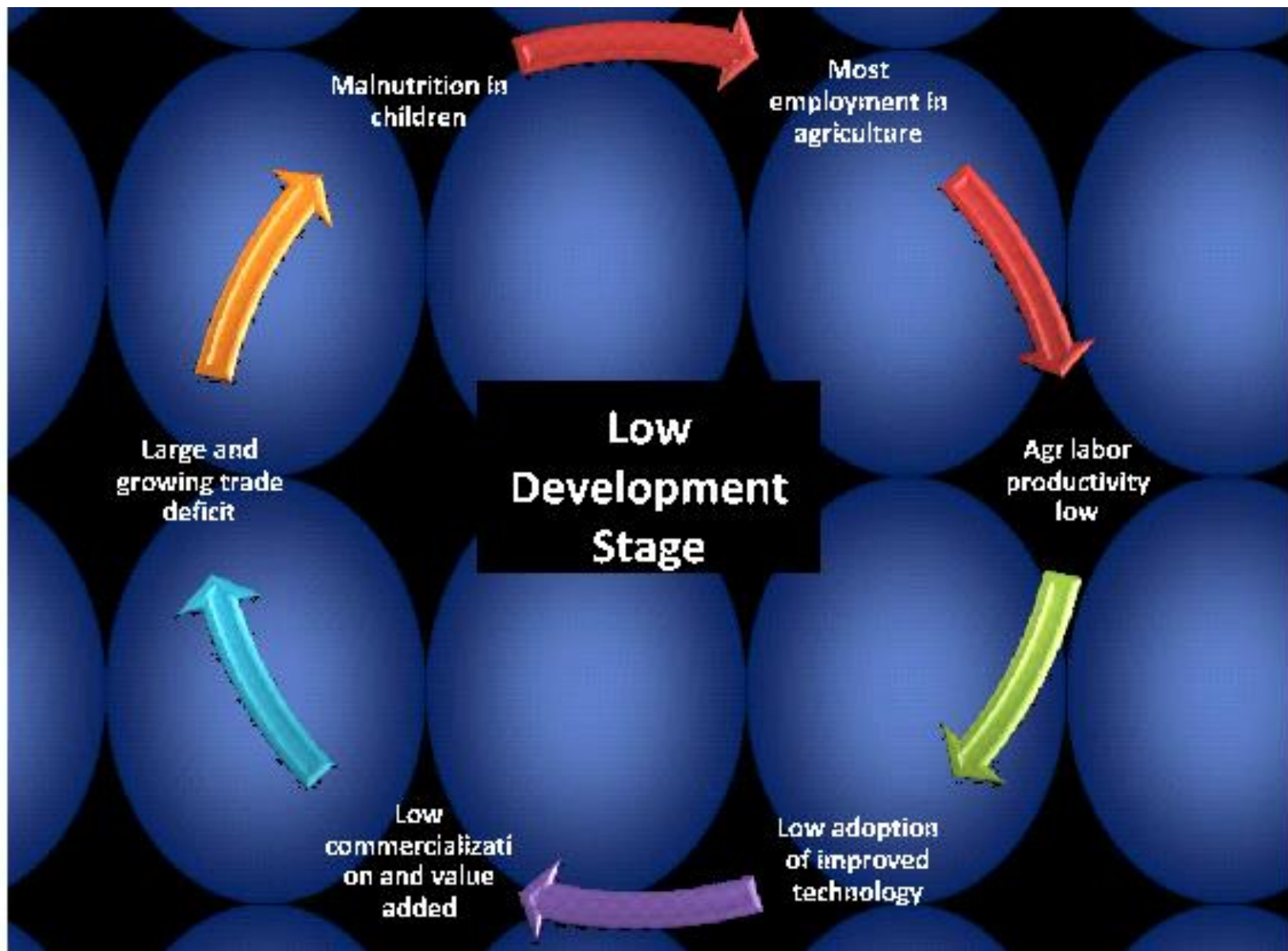




## Growth of Agricultural GDP

Source: MOF National Accounts Estimate 2012 (at constant prices)

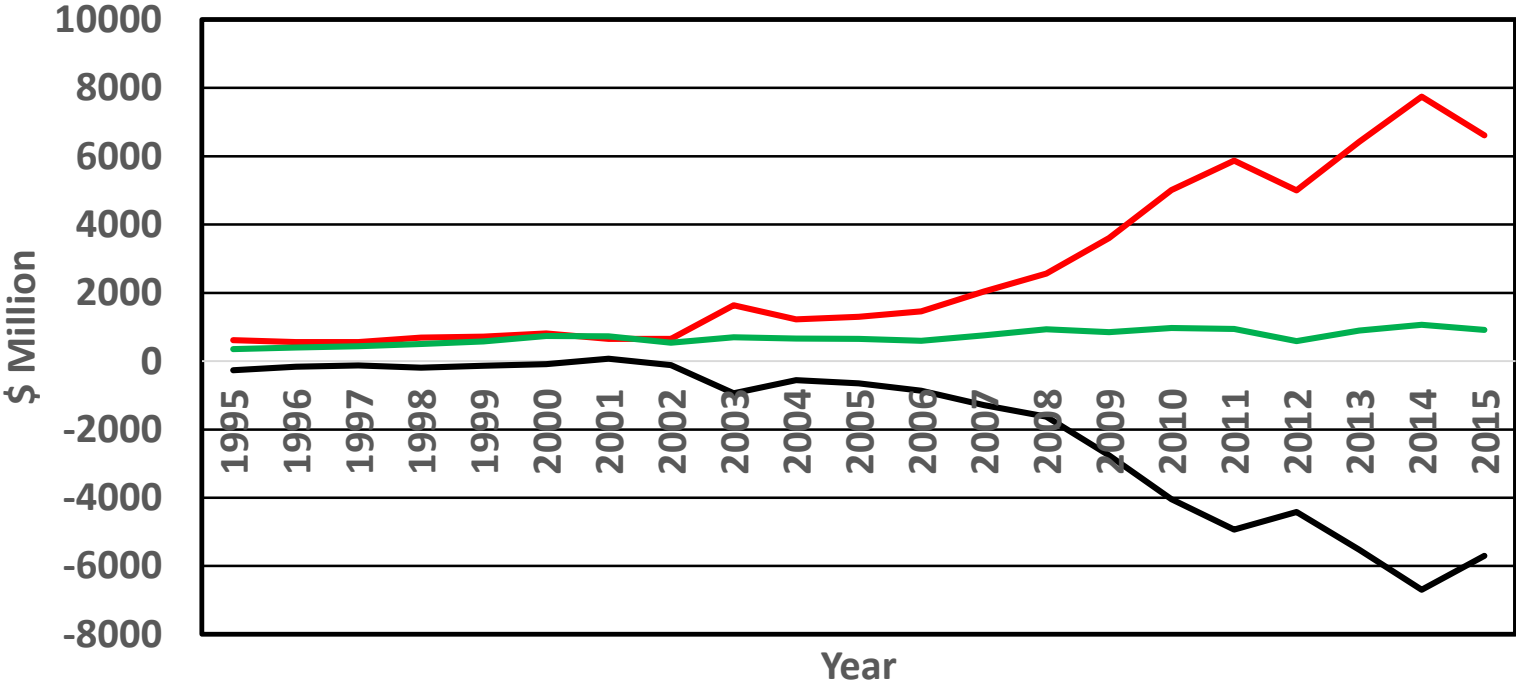
(MoAD, 2014)



## Low Development Stage of Nepalese Agriculture

(MoAD, 2014)

# Trade Balance (1995-2015)



— Imports (\$ M) — Exports (\$ M) — Trade Deficit (Export-Import) (\$ M)

Data source: [atlas.media.mit.edu/en/profile/country/npl](http://atlas.media.mit.edu/en/profile/country/npl).



## DEPENDENT ON INDIA FOR AGRICULTURAL IMPORTS

- A negative trade balance of Rs. 622,374.56 million (Rs.774,684.20 million import and Rs. 85,319.10 million export) for the fiscal year 2014/2015, of which 63.22% was with India, 14.21% with China, and 22.57% with other countries.
- The top two imports in 2014/2015 included agricultural products (Rs 137.12 billion) followed by petroleum products (Rs. 112.16 billion).

(CBS, 2016)

# Major agricultural commodities imported in 2014/2015:

Cereals	Rs. 35.12 billion
Fat and edible oil	Rs 22.51 billion
Vegetables	Rs 15.93 billion
Fruits and nuts	Rs 10.54 billion
Animal fodder	Rs. 10.02 billion
Oil seeds	Rs. 9.11 billion
Coffee, tea and spices	Rs. 4.27 billion
Sugar and confectionary	Rs. 3.49 billion
Beverages	Rs. 2.92 billion
Tobacco	Rs. 2.55 billion
Llive animal	Rs. 2.42 billion
Dairy products	Rs.2.15 billion
Fish	Rs. 1.15 billion

(CBS, 2016)

## SOCIO-ECONOMIC STATUS

- 25% population is below the poverty line
- 41% children suffering from stunting and chronic malnutrition
- Total outstanding public debt of Rs. 627.8 billion in 2015/16
- Outstanding per capita debt Rs. 22,159 in 2015/16
- Outmigration of almost 5 million youths for foreign employment

# AGRICULTURE DEVELOPMENT STRATEGY (ADS) 2015-2035



**Vision: “A self-reliant, competitive, and inclusive agriculture sector that drives economic growth and contributes to improved livelihoods and food and nutrition security leading to food sovereignty.”**

(MoAD, 2014)

# FLAGSHIP, CORE AND OTHER PROGRAMS

## FLAGSHIP PROGRAMS

1. Food and Nutrition Security Program
2. Decentralized Science, Technology, and Education Program
3. Value Chain Development Program
4. Innovation and Agro-entrepreneurship Program

## CORE PROGRAMS

**Governance**: policies, coordination and implementation, integrated planning, monitoring and evaluation, capacity-building.

**Productivity**: agricultural education, irrigation, inputs, improved breeds, sustainable farming.

### **Profitable**

**commercialization**: investment climate, contract agriculture, tax policy, agricultural finance, roads, markets, power.

**Competitiveness**: market infrastructure, exports, food quality and safety

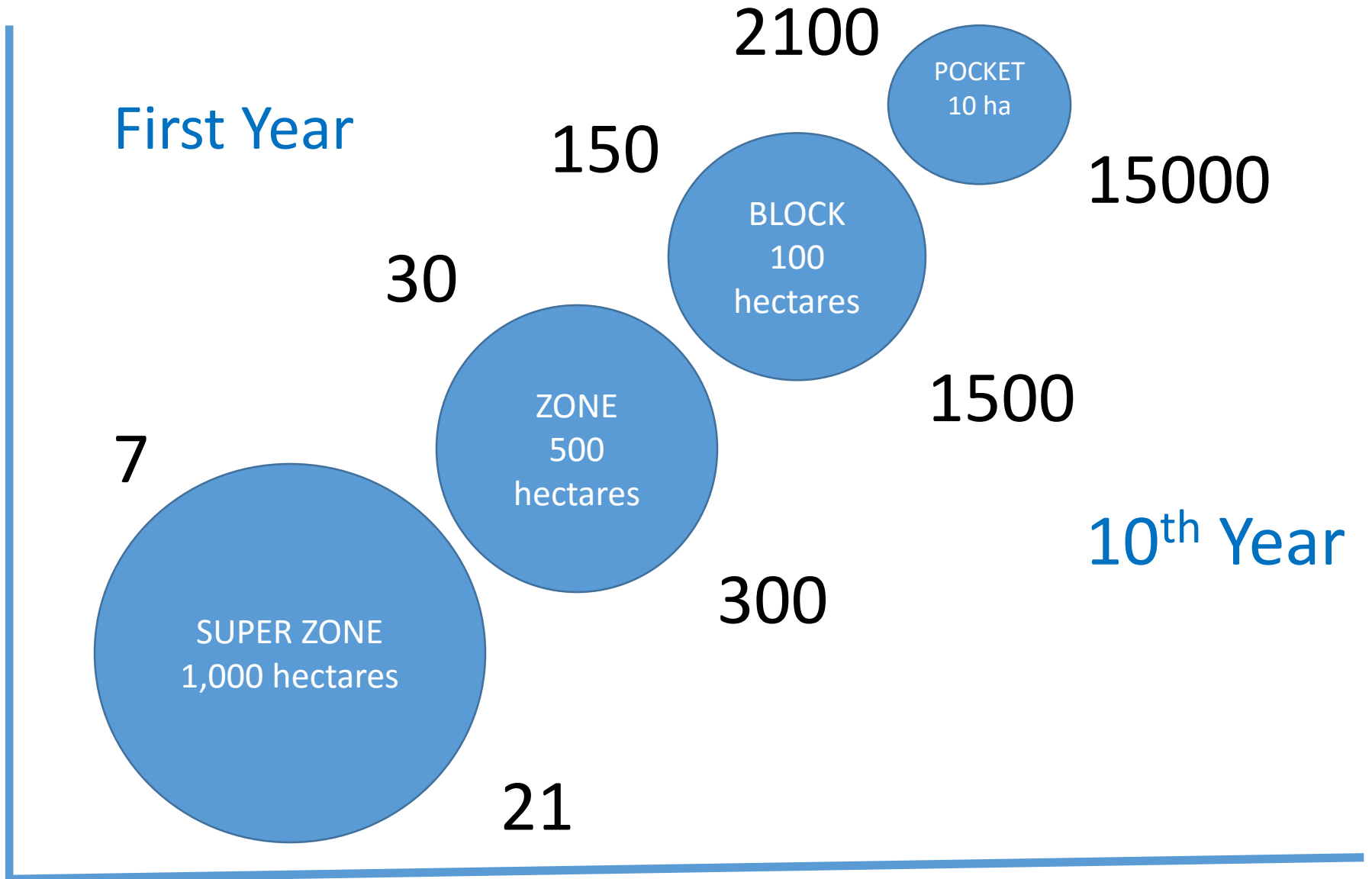
## OTHER PROGRAMS

Apple development program, Pomegranate, Mango, Flower, Orange, Cardamom, Tea and Coffee, Onion, Orange, Mushroom, Industrial crop, Oilseed, Soil testing, Animal health service, Livestock market, Agribusiness, Plant protection, etc.

# CURRENT AGRICULTURAL DEVELOPMENT PROGRAMS

- ❖ Prime Minister Agriculture Modernization Project (PM-AMP), (2016-2025)
- ❖ Zero Hunger Challenge National Action Plan (2016-2025)
- ❖ Multi-sector Nutrition Plan (MSNP) (2013-2017 (2023))
- ❖ Fourteenth Three Year Plan (2016-2019)

# PM-AMP (2016-2025)



## MULTILATERAL, BILATERAL, AND OTHER PROGRAMS

- Project for Agriculture Commercialization and Trade (PACT), 2009-2018, World Bank.
- Raising Incomes of Small and Medium Farmers Project (RISMFP), Asian Development Bank
- Knowledge-Based Integrated Sustainable Agriculture in Nepal (KISAN) project, USAID.
- High Mountain Agribusiness and Livelihood Improvement (HIMALI) Project, Asian Development Bank.
- Inclusive Growth Program in Nepal (UNNATI), DANIDA.
- Samarth-Nepal Market Development Program (Samarth-NMDP), DFID.
- Sahaj- Nepal Agricultural Market Development Program (Sahaj-NAMDP), SDC.



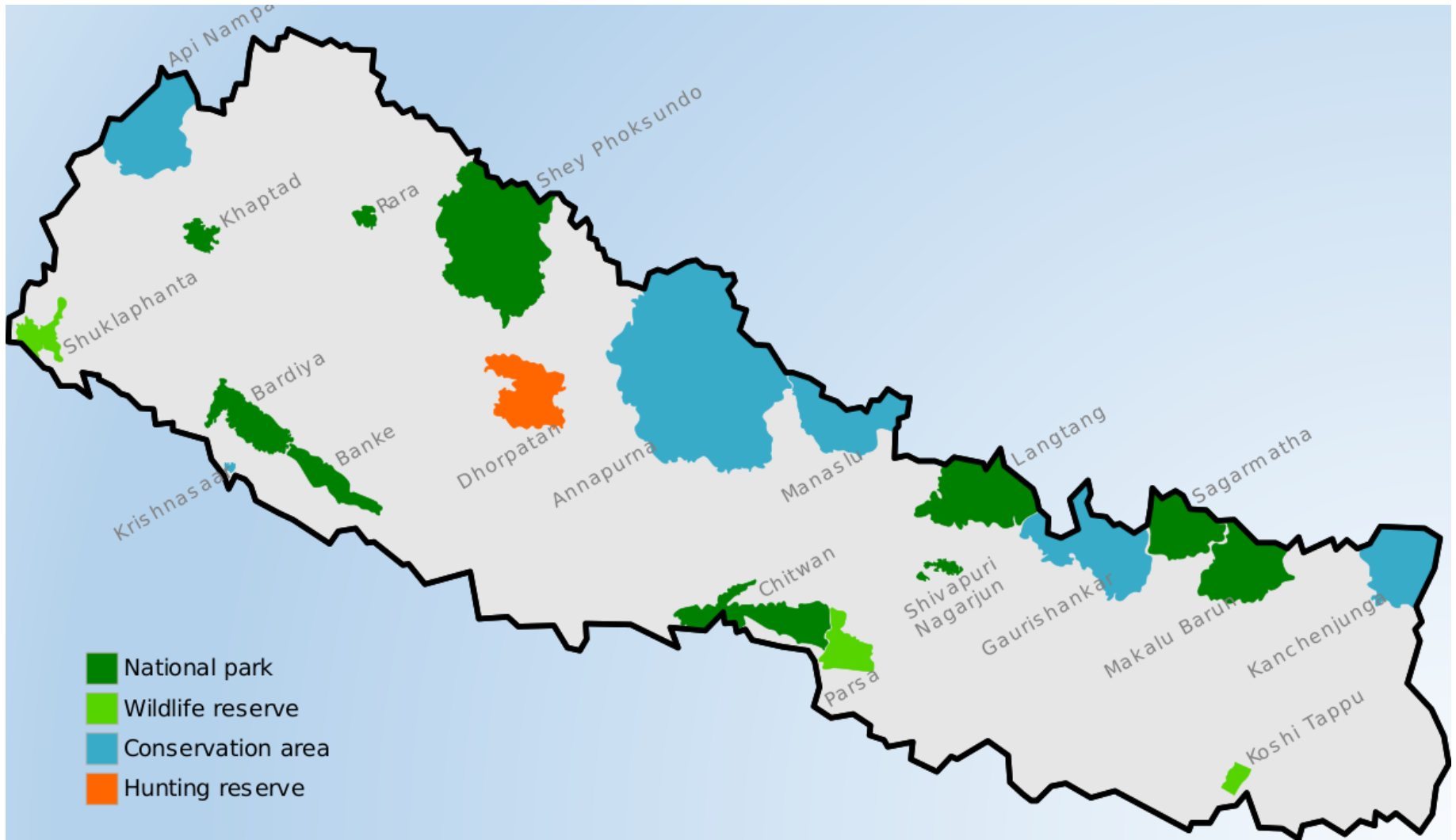
# IRRIGATION

- Irrigation Projects of National Significance

*The Sikta, Babai, Ranijamara Kulariya, and the Bheri -Babi Diversion projects*

- Total irrigable land of Nepal is estimated as 2,178,000 ha of which 1,091,000 ha receive irrigation water from surface and ground water and from farmers' managed irrigation,
- Only an estimated 418,000 ha is with year-round irrigation.

# PROTECTED AREAS OF NEPAL



Source: [https://en.wikipedia.org/wiki/Protected\\_areas\\_of\\_Nepal](https://en.wikipedia.org/wiki/Protected_areas_of_Nepal)

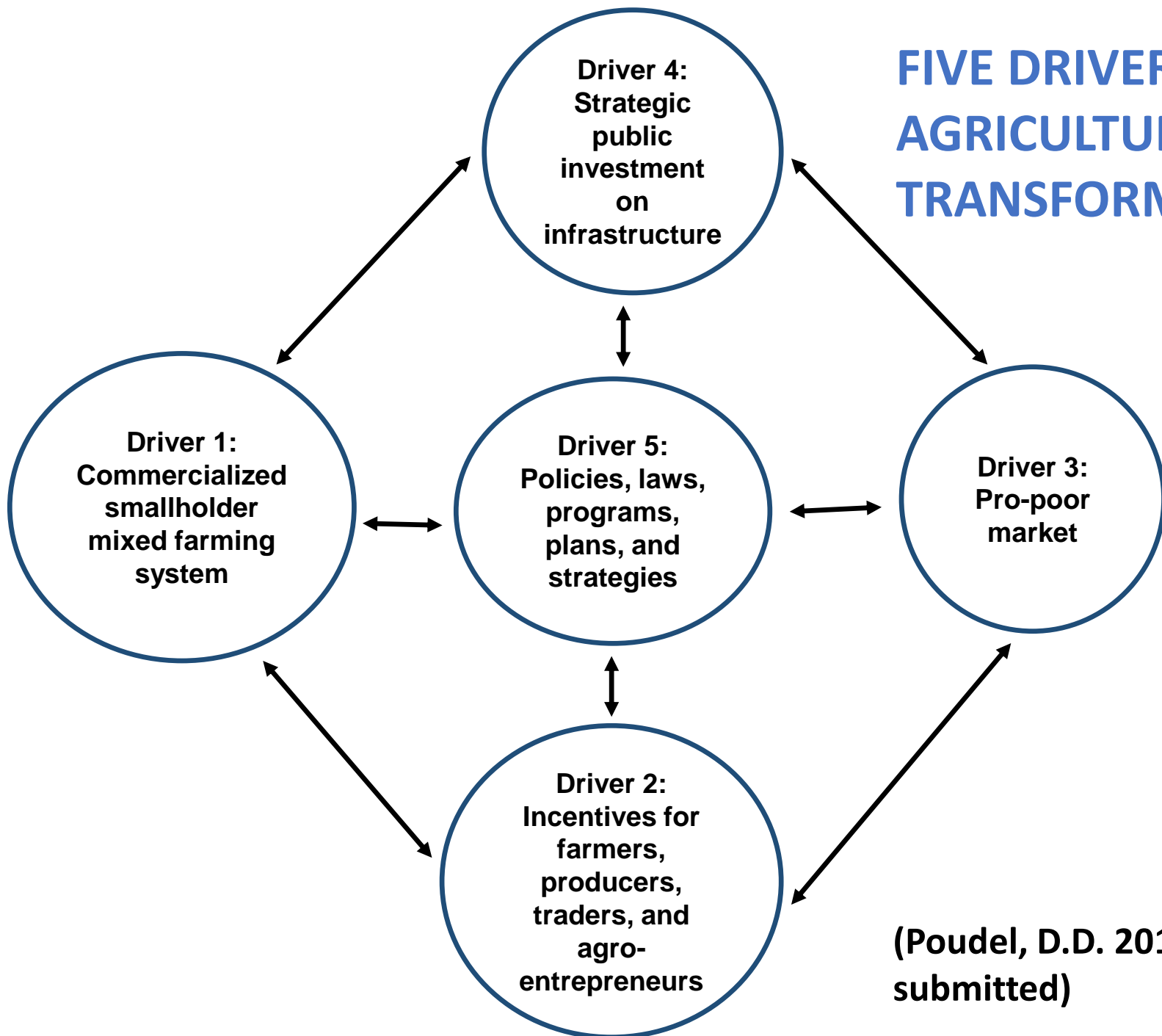
# NATURAL RESOURCES MANAGEMENT PROGRAMS

- Chure Conservation Program,
- Wildlife Management Project,
- Adaptation for Smallholder in Hilly Areas project,
- REDD++ Implementation Programs,
- Agroforestry and Community Forestry,
- Climate Resilience of Watersheds,
- Watershed Management projects
- Soil and Water Conservation,
- Kailash Sacred Landscape Conservation Initiative (KSLCI),
- Building Resilience to Climate Related Hazards (BRCH),
- Community Based Flood and Glacial Lake Outburst Risk Reduction Project (CFGORRP)

# IMPLEMENTATION CHALLENGES

- Lack of supporting legislations, policies, and resources for program implementation
- Lack of necessary manpower
- Low level of engagement of private sector in agricultural investment
- Weak coordination among implementing agencies
- Wide-spread corruption and fragmented policies and programs
- Overlapping programs and weak monitoring and evaluation
- Weak connection between producers and government agencies

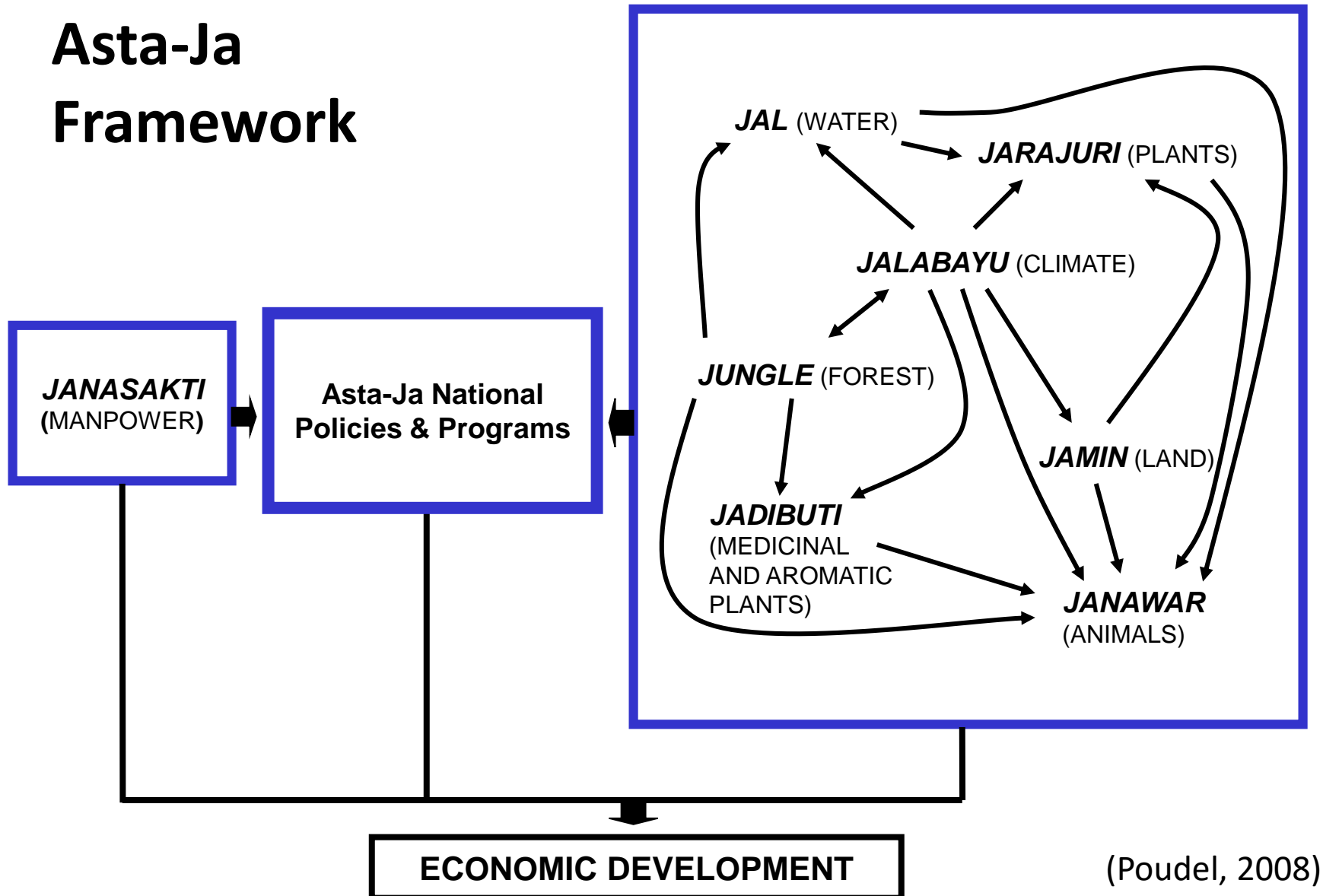
# FIVE DRIVERS OF AGRICULTURAL TRANSFORMATION



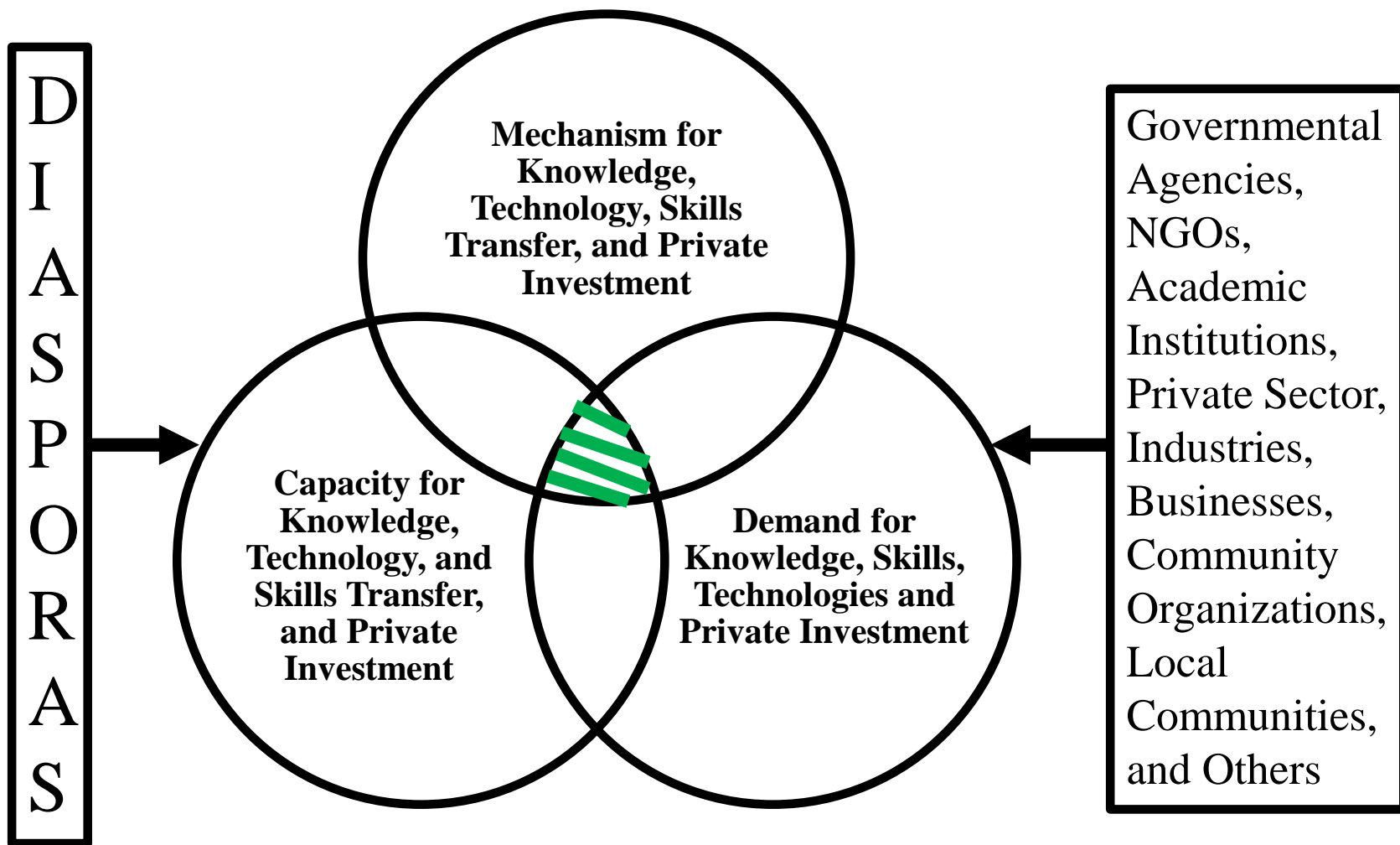
(Poudel, D.D. 2018. To be submitted)

# FOOD SYSTEMS AND NATURAL RESOURCES

## Asta-Ja Framework



# VENN DIAGRAM FOR KNOWLEDGE, TECHNOLOGY AND SKILLS TRANSFER AND PRIVATE INVESTMENT



(Poudel, D.D. 2018. To be submitted)

# THEMATIC AREAS FOR KNOWLEDGE, TECHNOLOGY, AND SKILLS TRANSFER AND PRIVATE INVESTMENT

Theme 1. Planning, policies, and programs,  
implementation, and monitoring and evaluation

Theme II. Capacity-building

Theme III. Private investment

Theme IV. Community development and services

Theme V. Trade and tourism promotion



# Conclusions

- Program coordination and implementation challenge.
- Five drivers of Inclusive Agricultural Development (IAD):
  - Commercialization of smallholder farming system; incentivized individual farmers, traders, and agro-entrepreneurs; pro-poor market; strategic public investment on infrastructure; and policies, plans, strategies, regulations, and agreements;*
- Knowledge, technology and skills transfer thematic areas:
  - Planning and design; capacity-building; private investment; community development; and trade and tourism.*
- Development of an integrated Agricultural and Natural resources Development and Management Strategy (ANRDMS) is suggested.

**Thank You!**