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Kathmandu, Nepal 14–16 November

REGIONAL CONFERENCE 2024

Climate Responsive Land Governance and Disaster Resilience: Safeguarding Land Rights



**Presented at the FIG Regional Conference 2024,
14-16 November 2024 in Kathmandu, Nepal**

Policies and institutions for land use planning in Nepal: Implementation status review for food security

Tanka Prasad Dahal, Survey Department

Dr. Purna Bahadur Nepali, Kathmandu University

Dr. Reshma Shrestha, Kathmandu University

Nepal

14 November 2024, Kathmandu

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Presentation Outline

- Introduction
- Methodology
- Institutions and Policies
- Organization Involved
- Process of Land Use zoning in Nepal
- Impacts of Land Use on Food Security
- Land Use planning in Nepal
- Explanatory case study of land use zoning in Banepa Municipality
- Challenges and way forward
- Conclusion



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Introduction

- Around 733 million people faced hunger in 2023(FAO).
- Challenge to meet SDG goal Zero Hunger by 2030
- Food security deals with the people’s access to sufficient food based on physical and economic perspective for healthy life of them
- Major component of food security is food production
- The major challenges of food security and sustainable agriculture are; **loss of arable land**, limited land for agriculture.(X. Jia and F. Dосdogru, 2021)
- Protection of the productive potential of agricultural land through land use planning (J. Ikerd, 2011)
- Constitution of Nepal 2015 approved “Food Sovereignty” as a fundamental right
- Land use planning is complex task needs to combine physical, social and economic aspect of use with foreseen for future. (S. Resources and C. Service, 1993)
- Land assumes as scarce natural resource today



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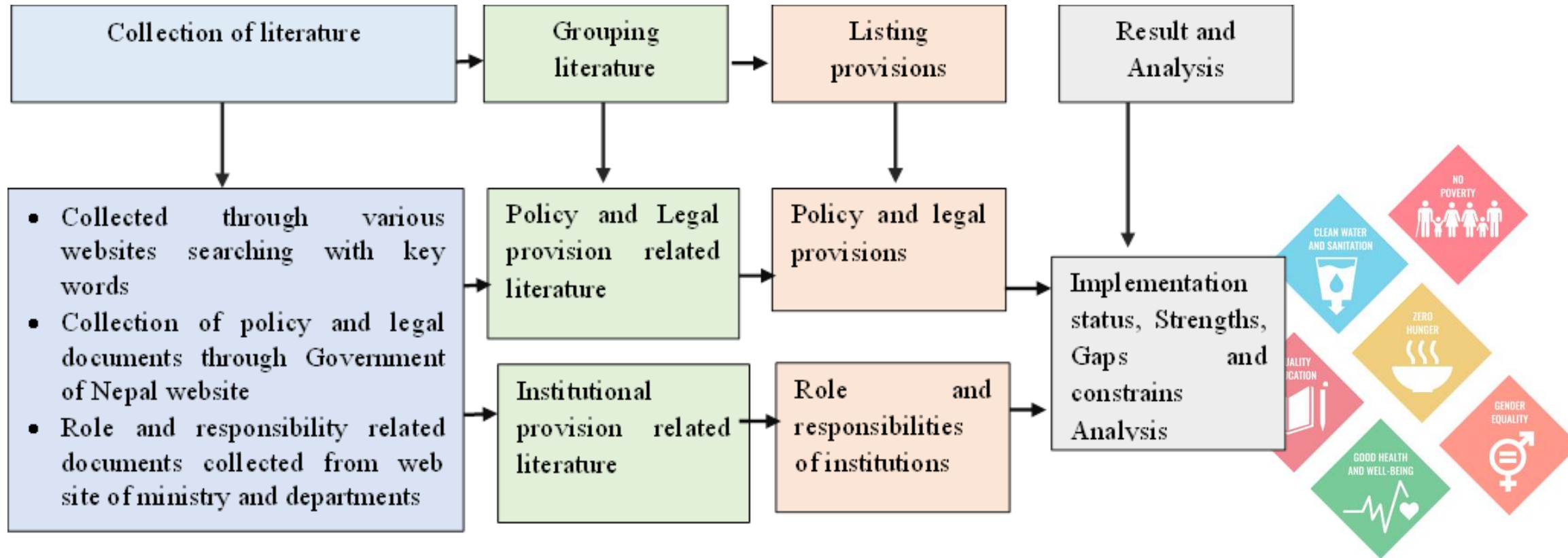


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Methodology





Institutions and Policies

- Constitution of Nepal
 - Article 36 includes food security & Sovereignty
 - [Article 51](#) State policies includes scientific land reform, land use planning and land management including modernization of agriculture.
- Land use policy, 2015
 - Optimum utilization and effective management of land resources including land use zoning
- Land policy, 2018
 - Management of land within country
- Land use Act, 2019 & Regulation 2022
 - Land use planning/zoning and map preparation process
 - Structure of Land use council in Federal to Local level
 - Maintain hierarchy of land use plan (federal to local)
- Land survey and measurement Act, 1964, Regulation 2001
 - Cadastral mapping and land registration including classification of land





Institutions and Policies (cont.)

- Federal land use council
 - Federal land use plan, approval of proposed land use conversion through province
- Provincial land use council
 - Provincial land use plan formulation, forward proposed land use conversion to federal land use council
- Local land use council
 - Land use zoning finalization: data provided by federal ministry, local need, regulation guidelines
 - Preparation of parcel based classification data and implementation
 - Documentation for land use conversion
- Execution Committee
 - Support local land use council during implementation of land use zone and plan





Institutions and Policies (cont.)

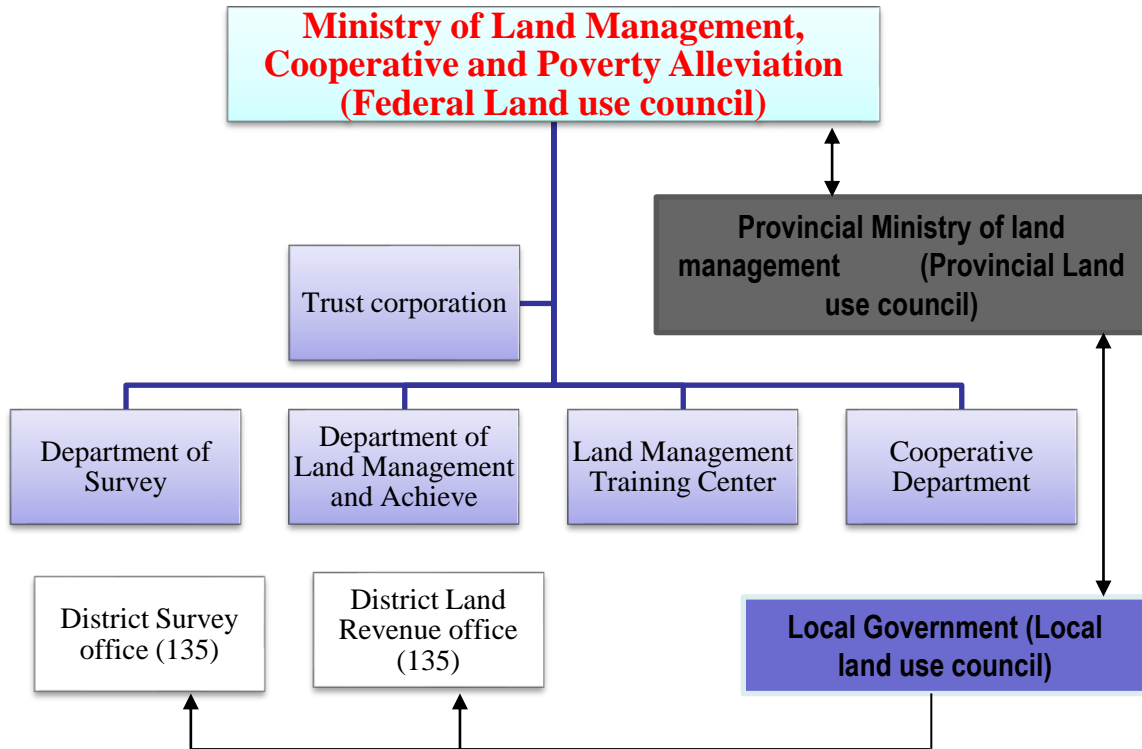
Land use zoning classes ([Land use policy 2015](#))

1. Agricultural Zone
2. Residential Zone
3. Commercial Zone
4. Industrial Zone
5. Mines and Minerals Zone
6. Cultural and Archaeological Zone
7. River and Lake-Reservoir Zones
8. Forest Zones
9. Public Use and Open Space Zone
10. Building Materials (Stone, Sands, Concrete) Excavation Zone
11. Other Zones as specified as per necessity





Organization Involved

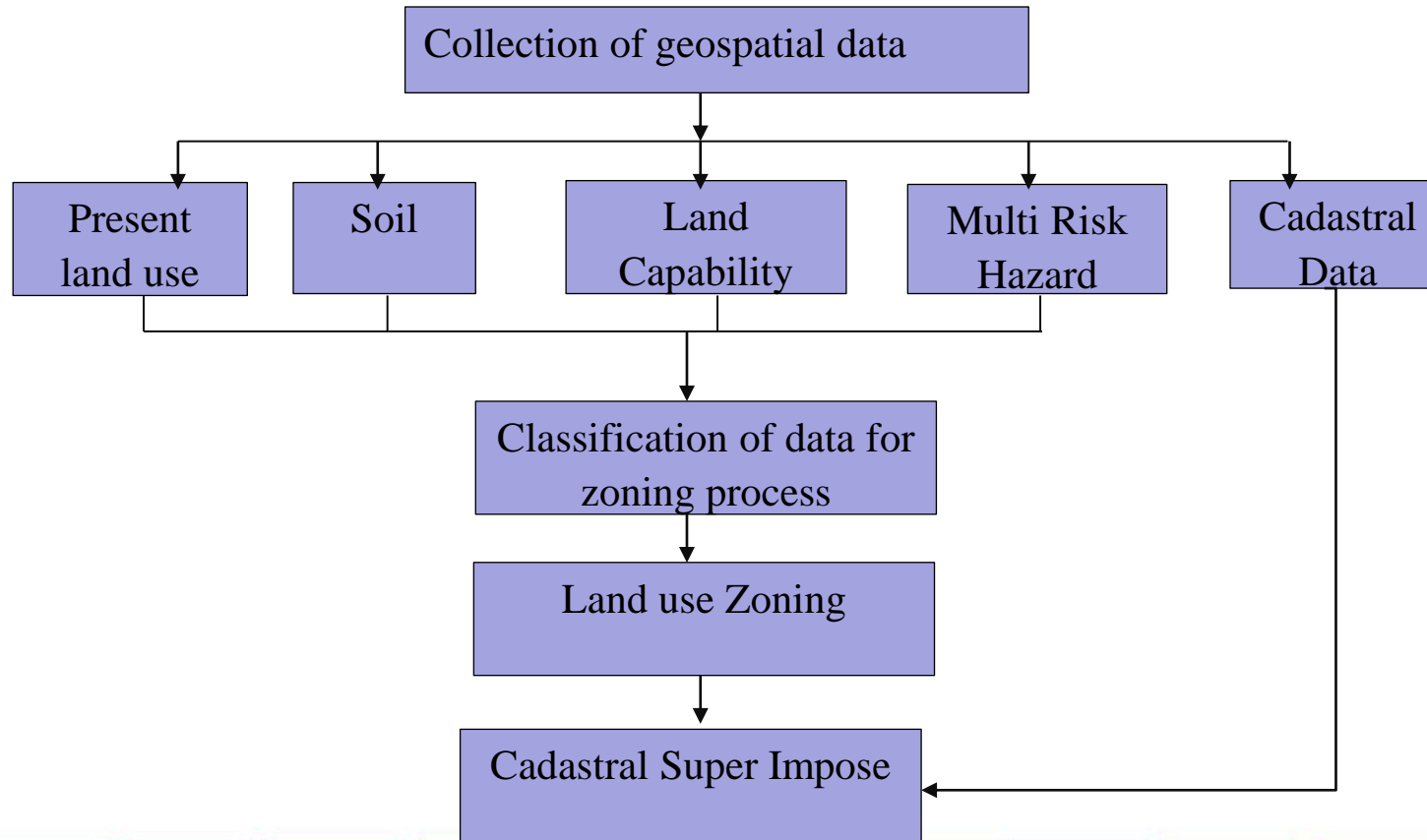


- **Federal Ministry (MoLCPA)**
 - Formulation of Policy & standards for preparation of national land use plan and provide technical support, functions as secretariat for federal land use council
- **Provincial Ministry**
 - Preparation of provincial land use plan, dispute resolution and mediation between local governments
- **Department of Survey (DoS)- Topographical Survey and Land Use Management Division**
 - Preparation of local level land use zoning data,
 - Provide technical support for update and implementation of land use zoning to Local level
- **Department of land management and Archive (DoLMA)**
 - Update the land use zone classification in land ownership records
- **Local Government**
 - Update, Approval and implementation land use zone and plan
 - Land use zone conversion processing (if necessary after implementation)





Process of Land Use zoning in Nepal





Impacts of Land Use on Food Security

- Rapid urbanization trend in globe impacts on encroachment of fertile land which directly affects the food production
- The major threat for food security in Nepal is land fragmentation and the conversion of agriculture land
- The research carried out by Forest Research and Training Institute in 2022 shows the decrease in agricultural land between 2000 to 2019 by 2.1% whereas increase by 0.36% of total area.
- The southern flat part called Terai is the “breadbasket of Nepal” produces surplus food but high mountain area cannot produce sufficient food for their population





Land Use Planning in Nepal major milestones

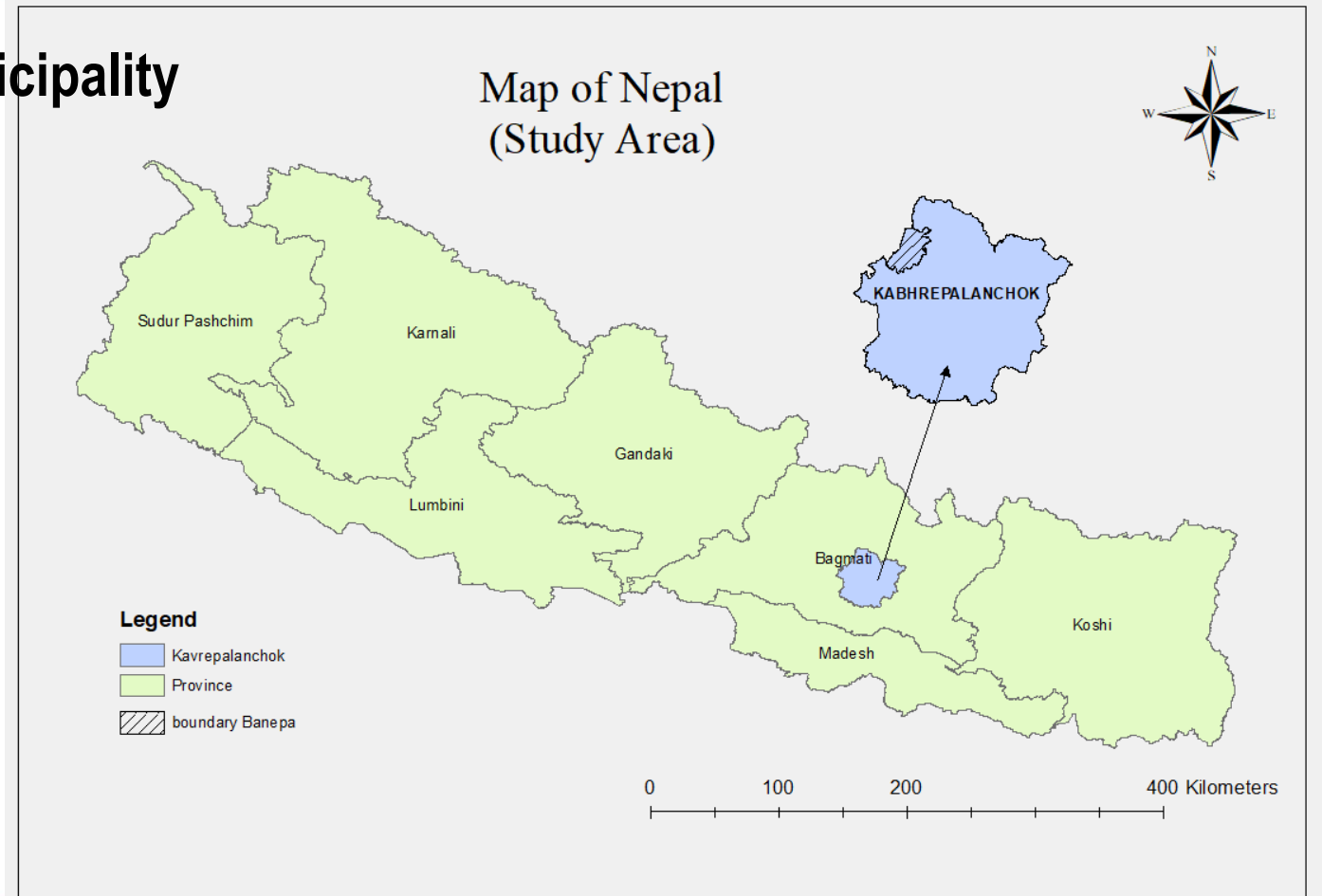
- The concept of land use planning through land use zoning was initiated in Ninth Development plan of Nepal (1997-2002) for sustainable use of land
- National land use project was established in 2001 for preparation of land use plan up to local level
- National land use policy was formulated in 2012 then replaced by Land use policy 2015 consideration of risk (disaster)
- Provision for federal, Provincial & Local level land use council for execution of land use plan included in land use Act, 2019
- Land use Act, 2019 and land use regulation, 2022 enactment to support land use policy
- Land use directives has been prepared in 2023
- Large scale (1:10000) Land use zoning map for all 753 local levels has been prepared and handed over
- The update and implementation of land use zoning by local level is going on





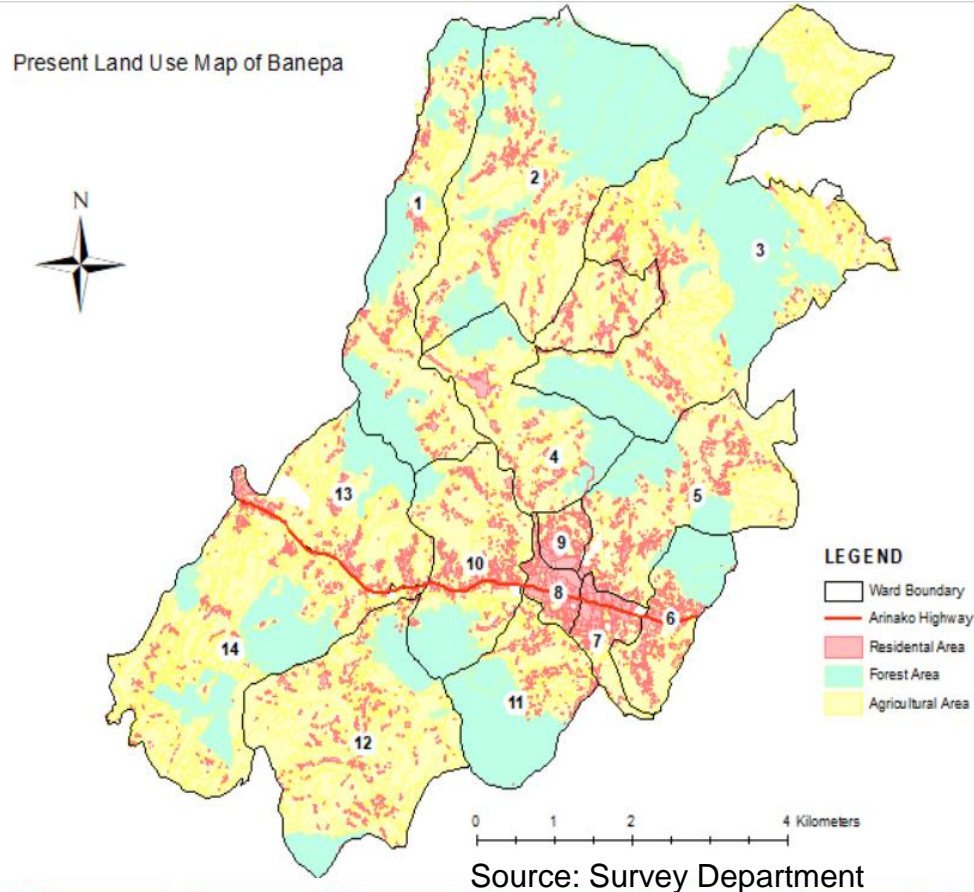
Explanatory Case study – Banepa Municipality

- Situated in Kavrepalanchok district 20 km far from capital city Kathmandu
- Total 13 local levels in Kavrepalanchok district (6 municipality and 7 rural municipality)
- Rapid urbanizing Commercial city, Bagmati Province, Nepal





Present land use map of Banepa



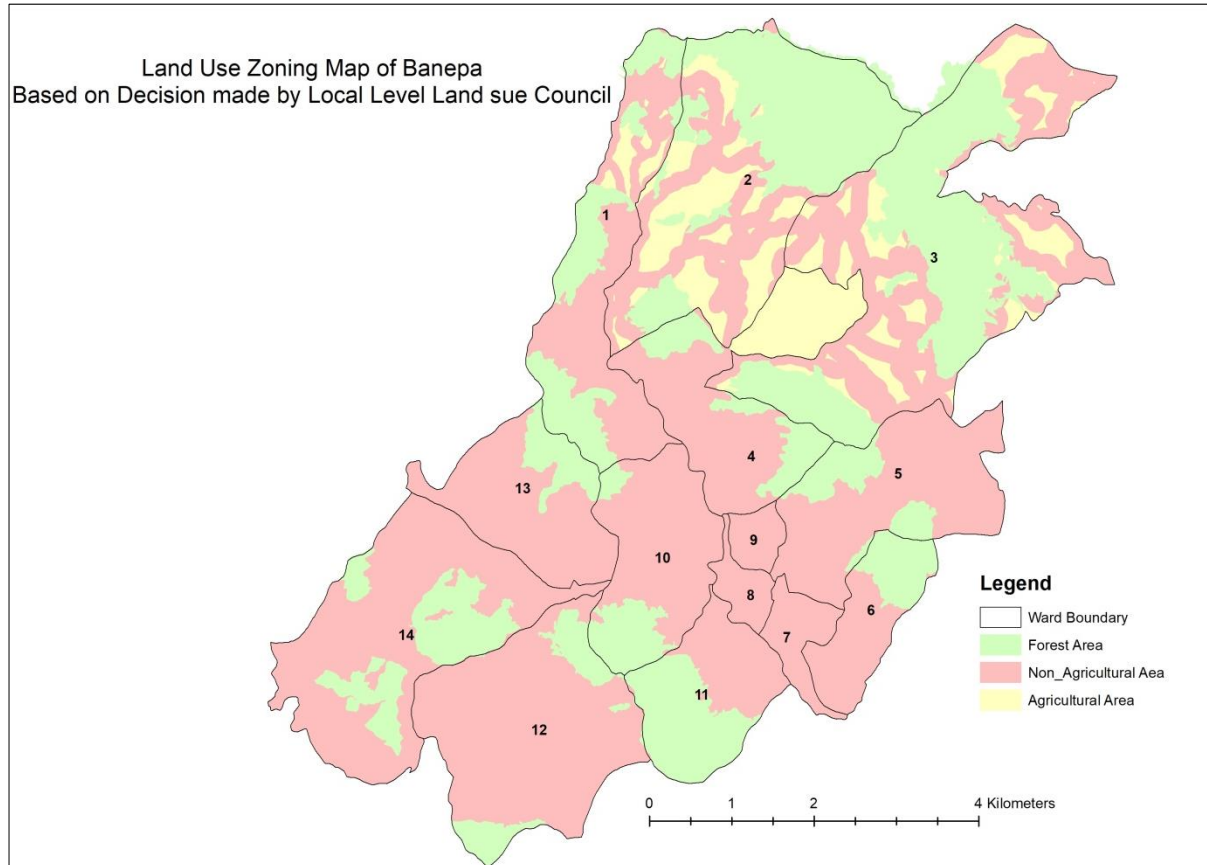
s.n.	Present land use category	Area (sq.m)	Percentage
1	Agricultural	33560381.69	61.40
2	Forest	16663845.23	30.49
3	Residential	2843446.77	5.20

Only three major classes are taken because of local land use council has not classified according to land use policy these three classes are common for all wards of municipality





Land use zoning by Local level (Based on [decision of local land use council](#))



Source: Survey Department(admin boundary) & Banepa Municipality(Zoning)

S.n.	Land use Zone category	Area(sq.m)	Percentage
1	Agricultural	5093247	9.32
2	Forest	1666384 5.23	30.49
3	Non Agricultural/ Residential	3289877 9.2	60.19

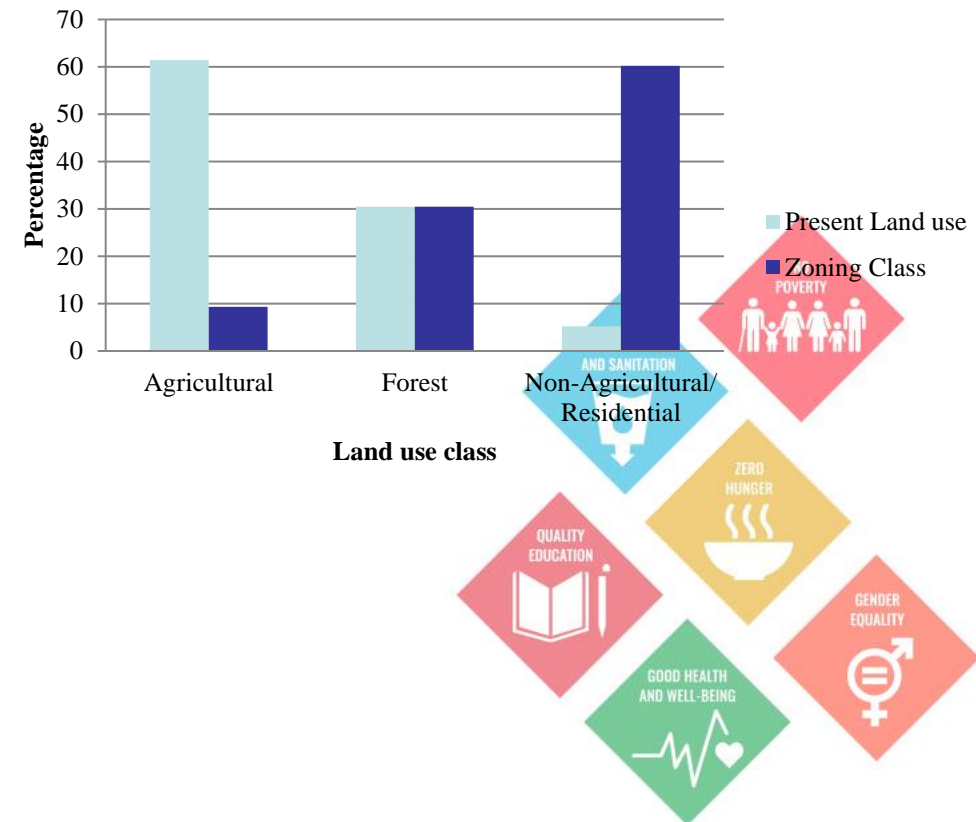




Comparison of Present land use and Local level zoning

S.n.	Land use category	Land use zoning by council		Present land use		Difference	
		Area covered	%	Area covered	%	Area	%
1	Agricultural	5093247.00	9.32	33560381.69	61.40	-28467134.7	-52.1
2	Forest	16663845.23	30.49	16663845.23	30.49	0.0	0.0
3	Non-Agricultural/Residential	32898779.2	60.19	2843446.77	5.20	30055332.4	55.0

Present land use and Zoning comparison





Challenges and way forward

- Large amount of agricultural land has been classified in to residential area
- Local level is not committed in following the legal provisions during zoning process
- Lack of monitoring mechanism by federal agencies on Land use zoning and implementation done by local level
- Difficulty in maintaining the spatial hierarchy of land use plan due to Lack of federal and provincial land use plan
- Lack of integrated land use planning and stakeholder consultation during zoning process
- Need of federal land use coordination office at District Level to support and monitor local level during land use planning
- Policy need to revised including the provision of approval of local land use zoning form federal level at first based on planning hierarchy
- Thematic plan and policy integration is another important aspect to achieve essence of land use policy





Conclusion

- Constitution of Nepal is committed to land use planning and food security
- Sufficient legal backup for land use planning is initiated
- Lack of capacity of local level for land use planning (Technical and planning experts)
- Local level are doing land use plan with out assessment of spatial data
- Need of National & Provincial land use plan to maintain hierarchy of planning
- Commitment in protection of agricultural land is necessary
- Demand of District level thematic land use organization to support local level in formulation and implementation of land use zoning
- Integrated approach is necessary regarding land related plan/policy and stakeholder consultation for successful implementation of land use policy for economic and social welfare.
- Land use planning can control various types of disasters like flood, landslides etc.
- Proper land use planning based on risk part can contribute in achieving SDG goal 2 Zero hunger



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Thank you Very much for your kind Attention



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