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United Nations Human Settlements Programme

Urbanisation as a territorial development process: the need for a multi-scaled integrated approach The case of the Sahel

ArcX - Interactions between Urban and Rural Environments and Ecosystem Sustainability in West Africa

Shared understanding of the urban-rural interface

22 June 2026 - Lomé, Togo

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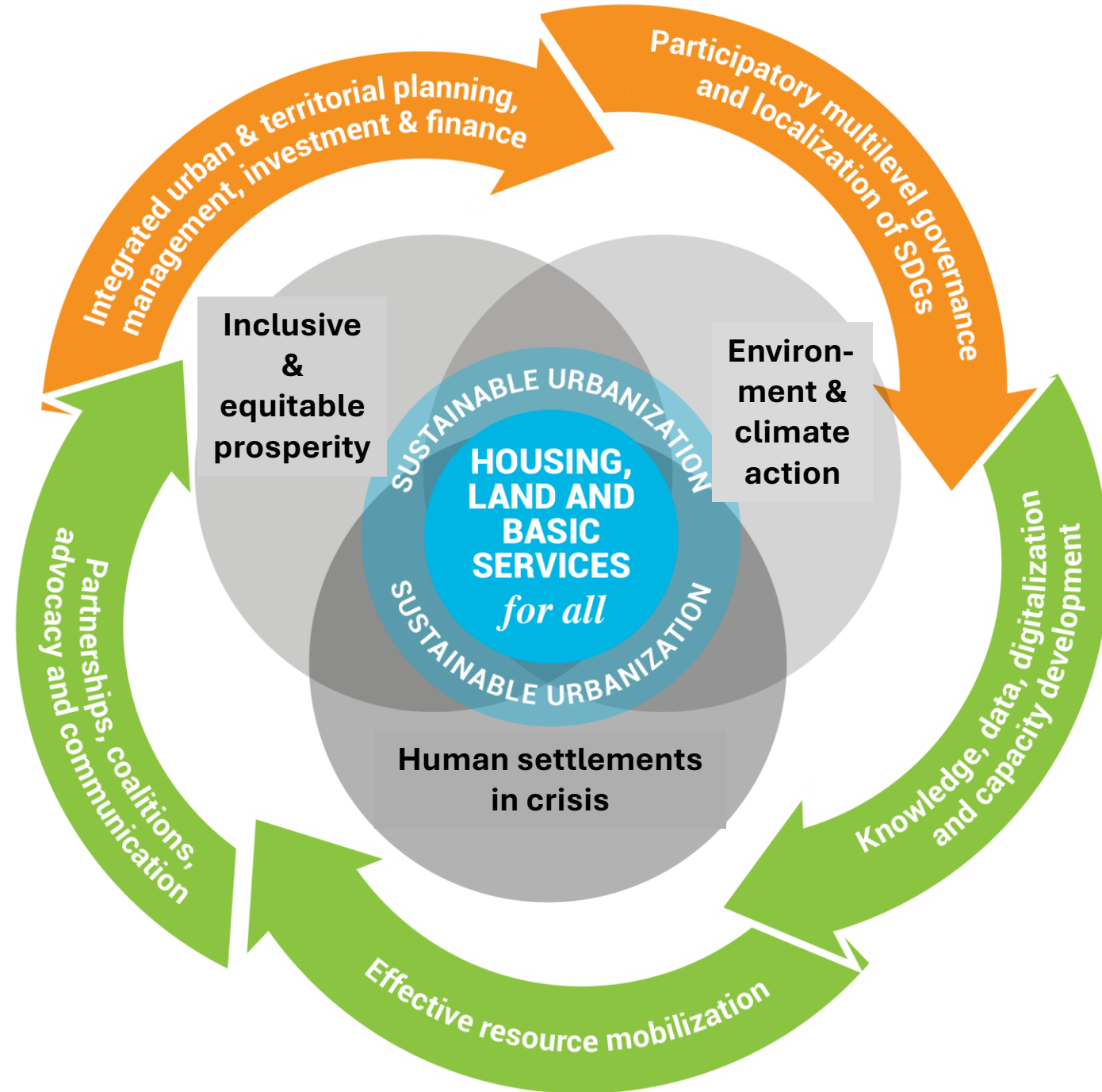
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Strategic Plan 2026-2029

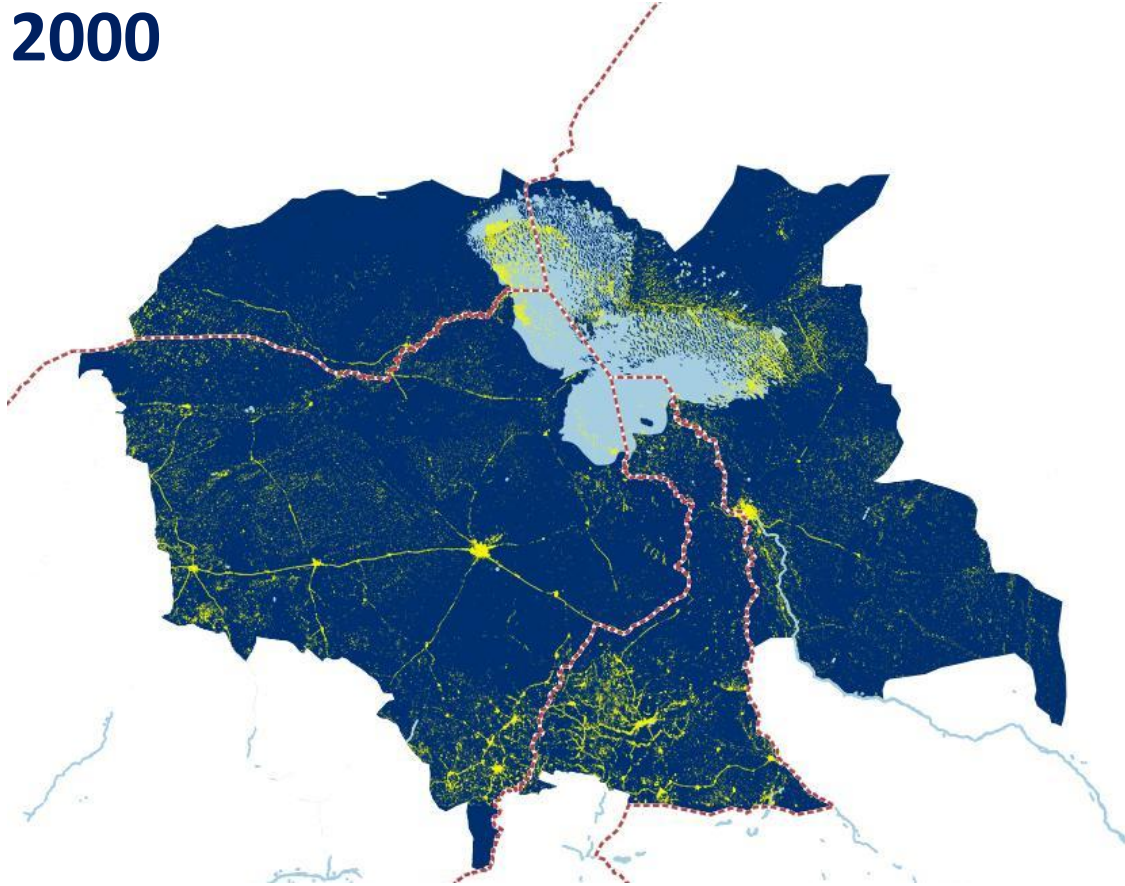
If **urbanisation** can be associated to a **territorial development process**,

then **sustainable urbanisation** can only be achieved through an **integrated multi-sectoral approach**, which needs to be **planned and managed at different scales**



THE CASE OF LAKE CHAD BASIN - THE NEED TO STRIKE A BALANCE BETWEEN **RAPID** URBAN GROWTH (WHICH IS CHARACTERISING WEST AFRICA)...

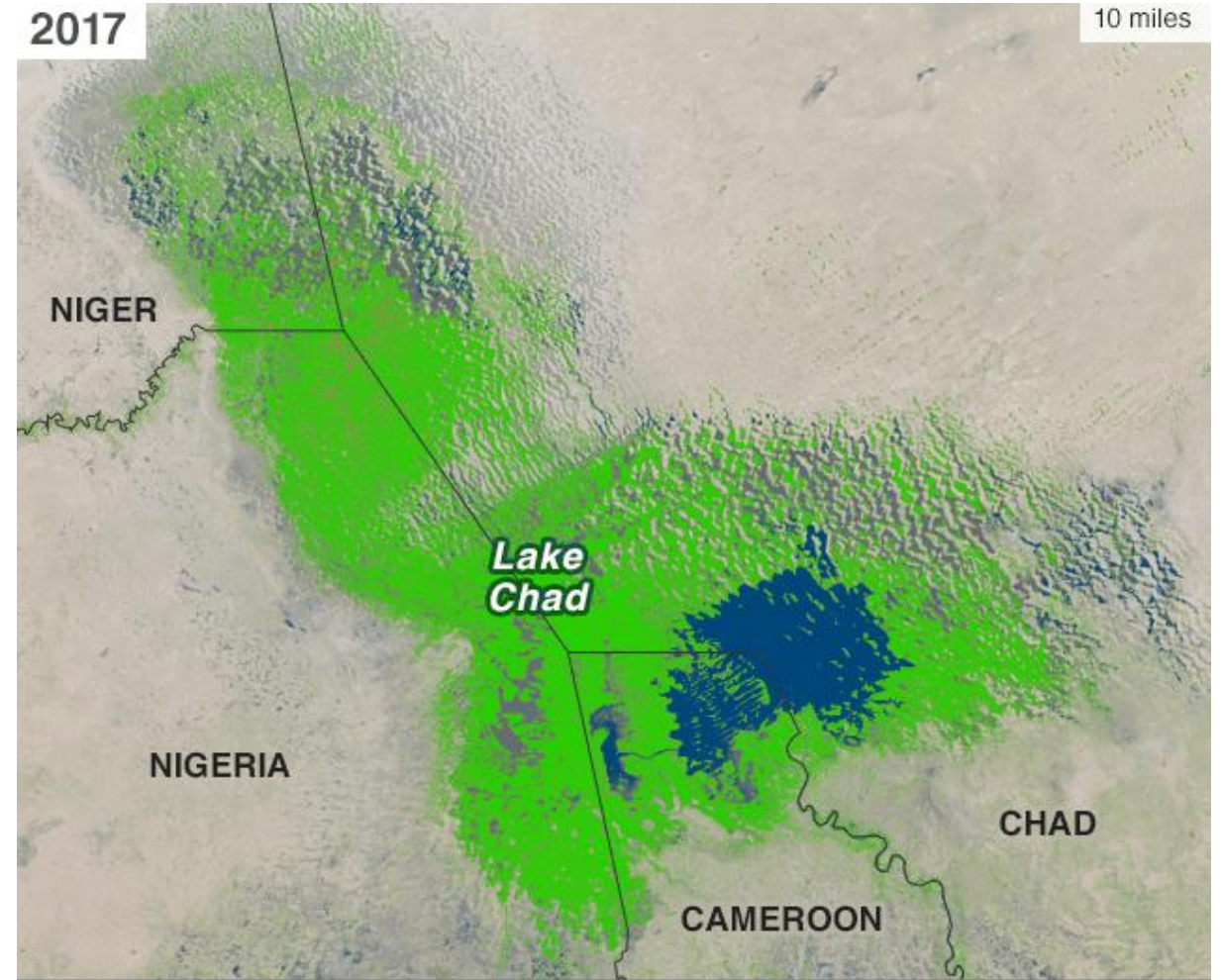
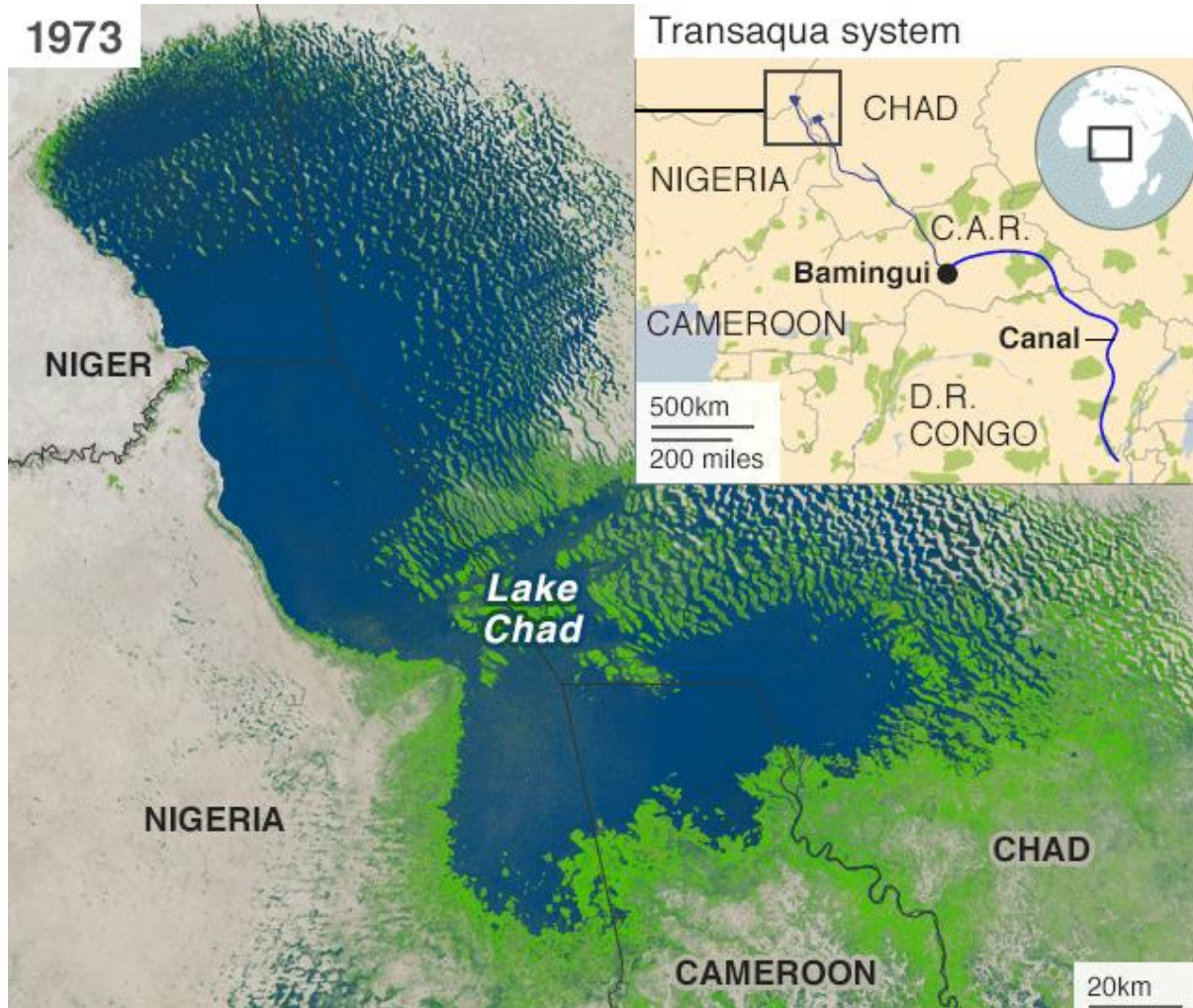
2000



2020



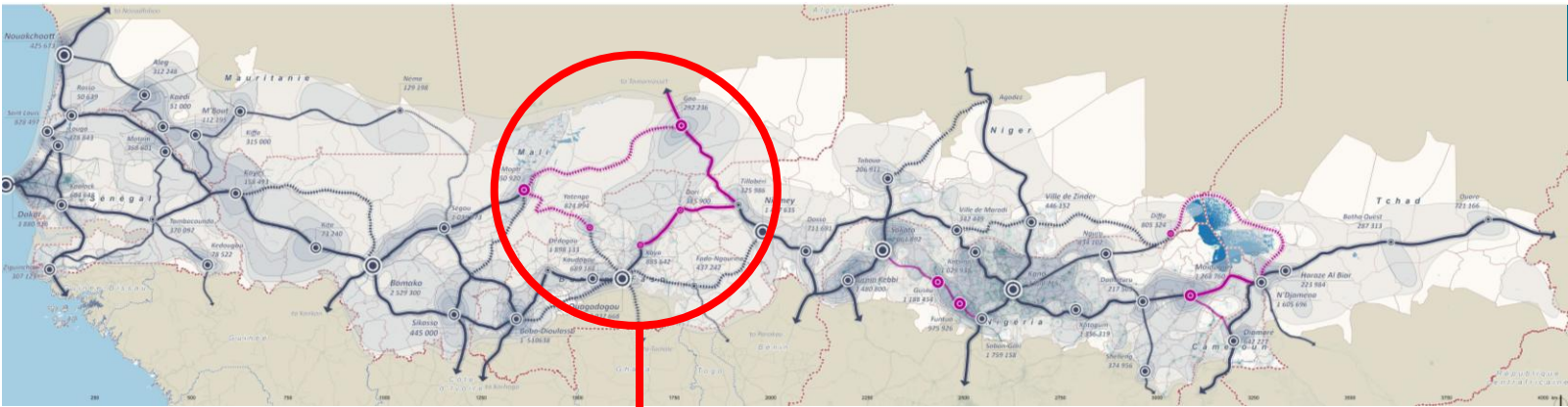
... AND THE SUSTAINABLE USE OF EXISTING NATURAL RESOURCES



Source: Nasa and Transaqua project

BBC

The importance of adopting a multi-scaled territorial approach to understand the spatial structure or system of cities...

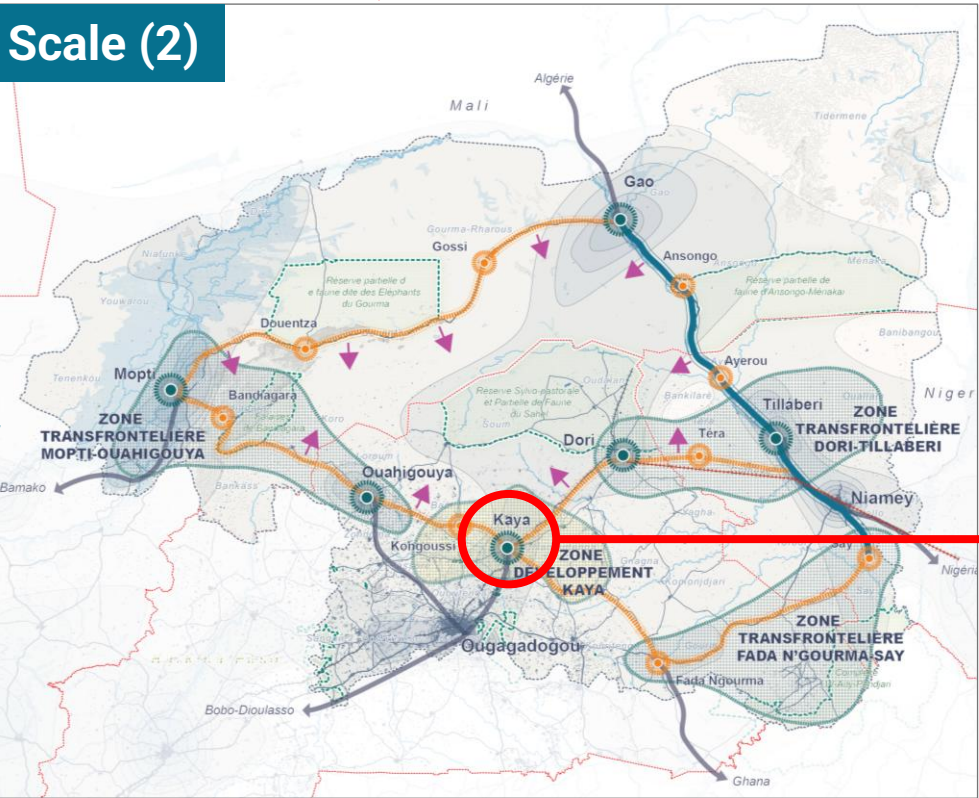


The Strategic Scale (1)

Spatial Development Strategy for the Sahel (SDSS)

The Strategic Scale (2)

Strategic Spatial Action Plan for the Liptako-Gourma transboundary Area (SSAP-LG)



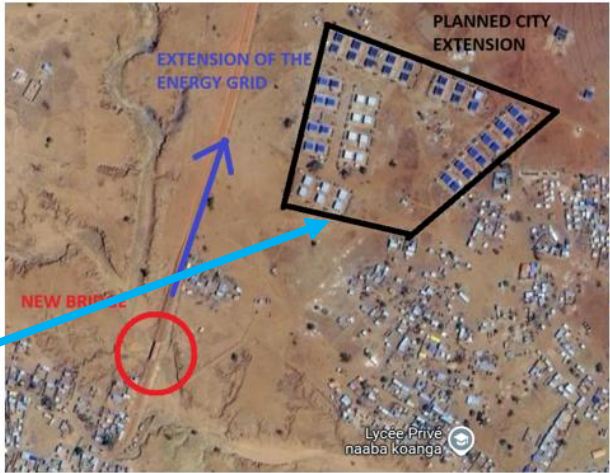
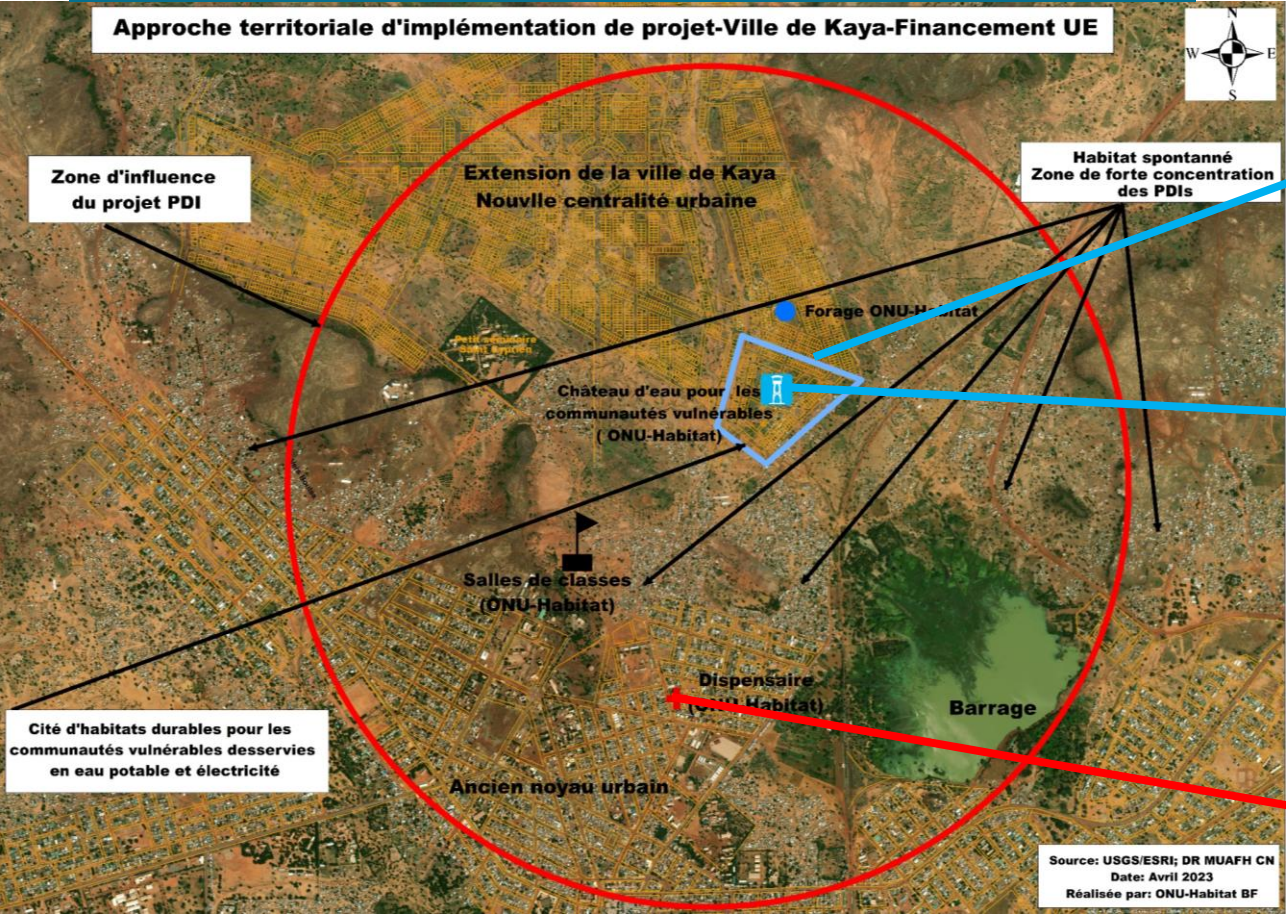
The City Scale (including urban-rural interactions)



Strategic / Tactical / Rapid city planning

... and prioritise structural investments (e.g. through planned city extensions) that have an impact across a wider area.

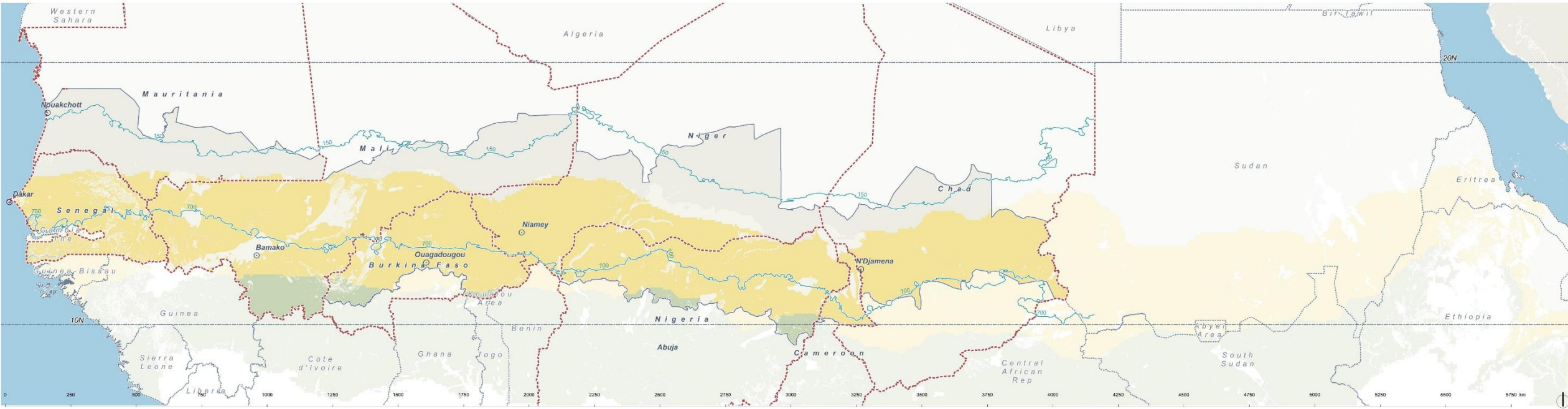
The Local Scale (planned city extension)



Adoption of the area-based approach at the local scale

THE CASE OF THE SAHEL:

PREPARING THE SPATIAL DEVELOPMENT STRATEGY FOR THE SAHEL (SDSS)

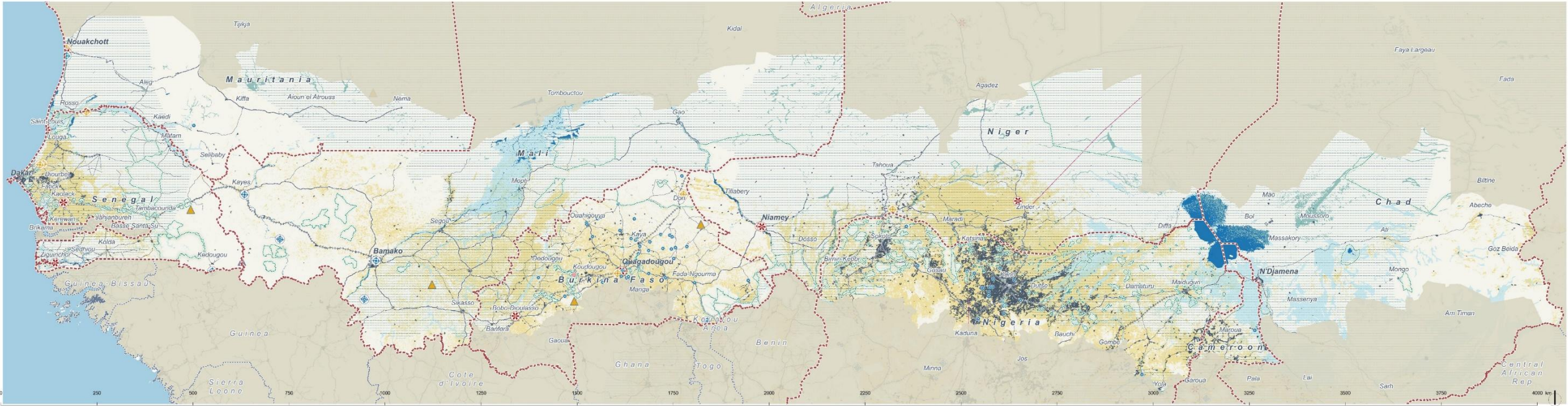


COUNTRIES	POPULATION	PEOPLE IN NEED	Agro-ecological Zones		Latitude (10N, 20N)	Sahel Isohyets (150-700mm)	Area of study	Sahel's Country boundaries	Country boundaries	
Senegal, Mauritania, Mali, Burkina Faso, Niger, Nigeria, Cameroon, Chad	335 M	12 M	Tropics, lowland; sub-humid	Tropics, lowland; semi-arid						
AREA OF STUDY	91M	9.8 M	Desert/Arid climate							

Sources: Food and Agriculture Organization of the United Nations (2021), Climate Hazards Group InfraRed Precipitation with Station (2009-2021), WorldPop (2020), World Population Prospects (UNDESA, 2019)

SDSS - Collection of Secondary Data (a sample)

The Sahel, a region rich in natural resources, which attracts a great deal of interest



Minerals deposits

- ▲ Gold
- ▲ Iron
- ▲ Aluminum
- ▲ Copper
- ▲ Lead-Zinc
- ▲ Rare Earths

Energy plants

- ⊗ Coal
- ⊗ Gas
- ⊗ Oil
- ⊕ Hydro
- ⊕ Solar
- ⊕ Wind

Hydrocarbons Network

- Gas Pipelines
- Petrol Pipelines
- Built-up Areas
- Cropland

Freshwater sources

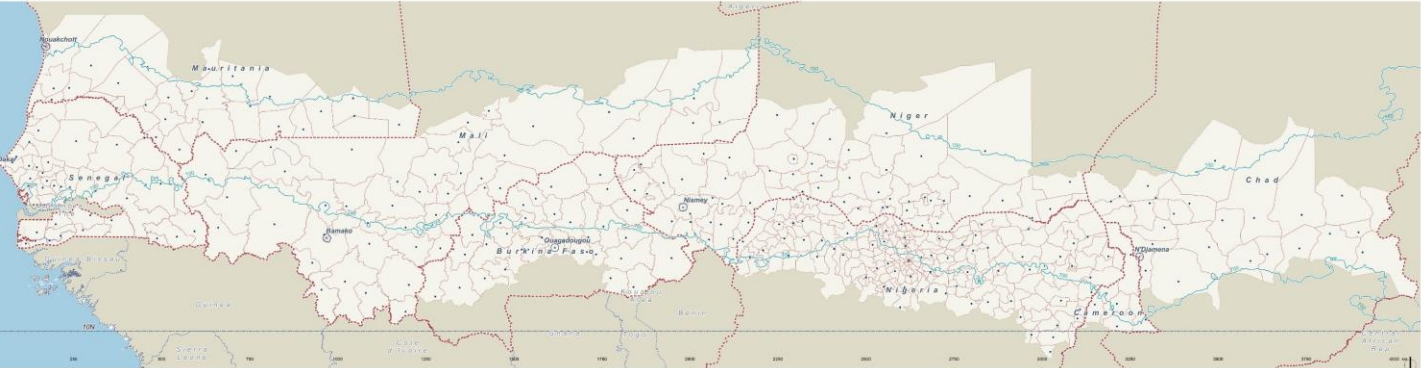
- Rivers and Lakes
- Floodplains
- Intermitent Wetlands
- Aquifers
- Dams

Transport infrastructure

- National road
- Secondary road
- Railway
- Protected Areas
- Sahel's Country boundaries
- Country boundaries



SDSS - 50,000 primary data points collected by local authorities using the Matrix of Functions





489
territorial
units



104
functions



> 100
public civil
servants
involved in the
process

Infrastructure & urban services

- Water
- Sanitation
- Electricity
- Telecommunication
- Transport
- Agricultural & pastoralist

33 functions

Disaster, environment and natural resources

- Disaster management institutions
- Security services
- Judiciary services
- Government extension offices
- Freshwater sources
- Metal and mineral sources

21 functions

Socio-economic activities

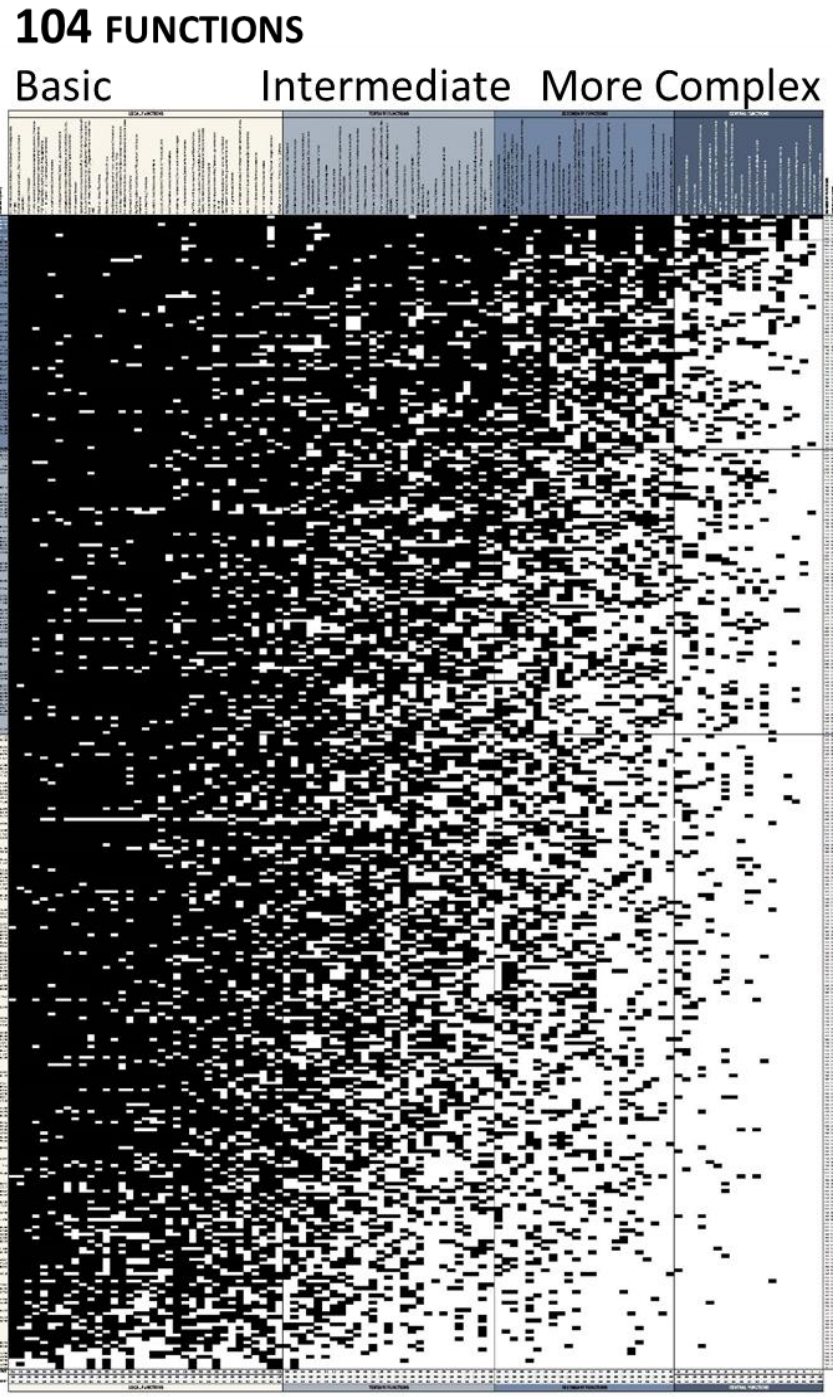
- Educational institutions
- Health facilities
- Recreational & cultural facilities
- Community organisations
- Financial institutions
- Commercial establishments
- Markets
- Industrial activities
- Professional services

50 functions

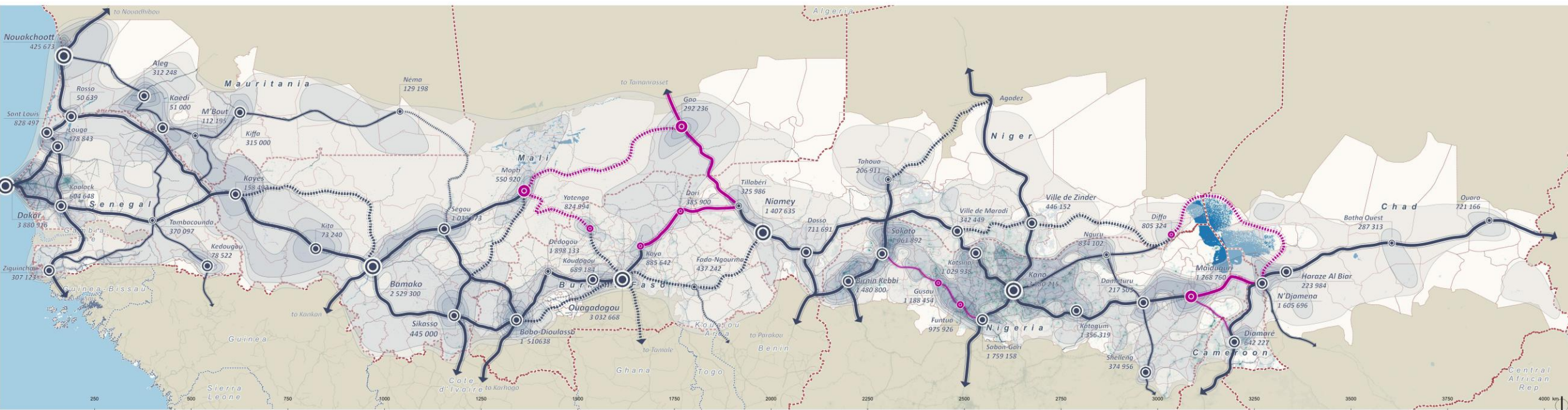
Country	Administrative level	Num.
Burkina Faso	Province	33
Cameroon	Districts	6
Mali	Cercles	46
Mauritania	Districts	40
Niger	Districts	60
Nigeria	Local Government Areas	232
Senegal	Districts	46
Chad	Departments	26
		489

489 TERRITORIAL UNITS
Local

Primary
Secondary
Tertiary



SDSS - The network of urban settlements (or spatial structure), a skeleton supporting the entire Sahel region



Human Settlements (HS)

- Central (CHS)
- Secondary (SHS)
- Tertiary (TSH)

Development Corridors (DC)

- Primary
- Secondary

Mobility/Logistic Corridors (MC)

- Primary
- Secondary

Levels of Centrality

- Level1
- level2
- level3
- level4
- level5
- level6
- level7
- level 8
- level 9
- level 10

Population density (hab/km2)

- < 250
- 250-1000
- 1000-5000
- 5000-10000
- >10000

Transport infrastructure

- National road
- Secondary road
- Railway

Rivers and Lakes

Territorial Units boundaries

Sahel's Country boundaries

Country boundaries

SDSS - Three (3) main recommendations and four (4) transboundary areas where efforts/investments should be concentrated



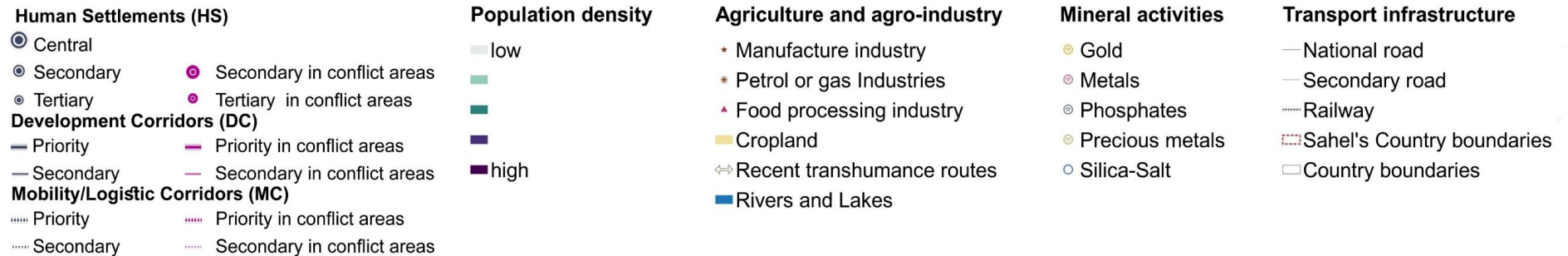
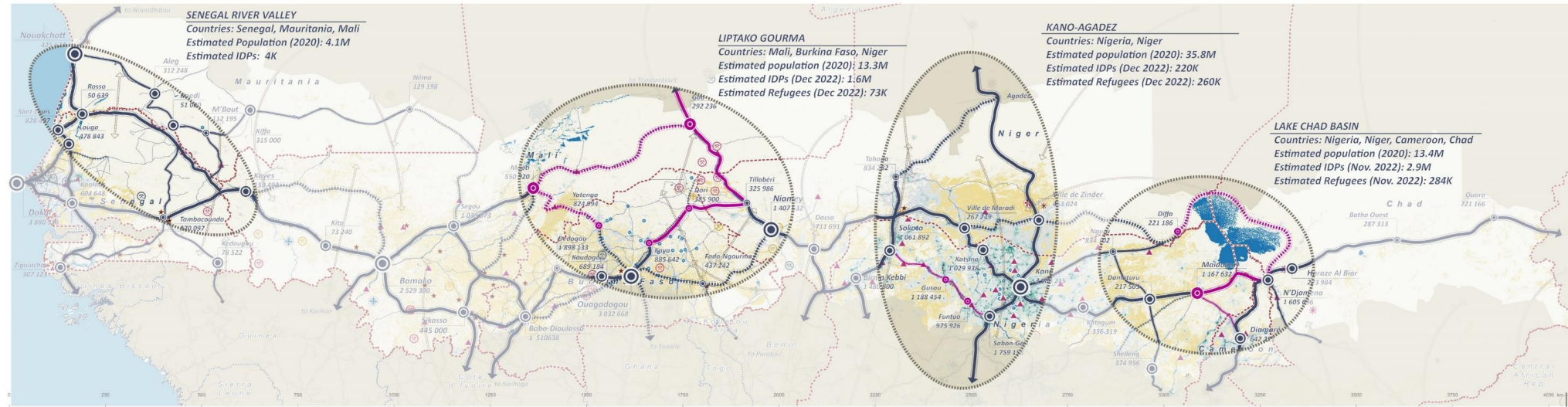
Reconnect the Sahel



Economic transformation and diversification, and Energy transition

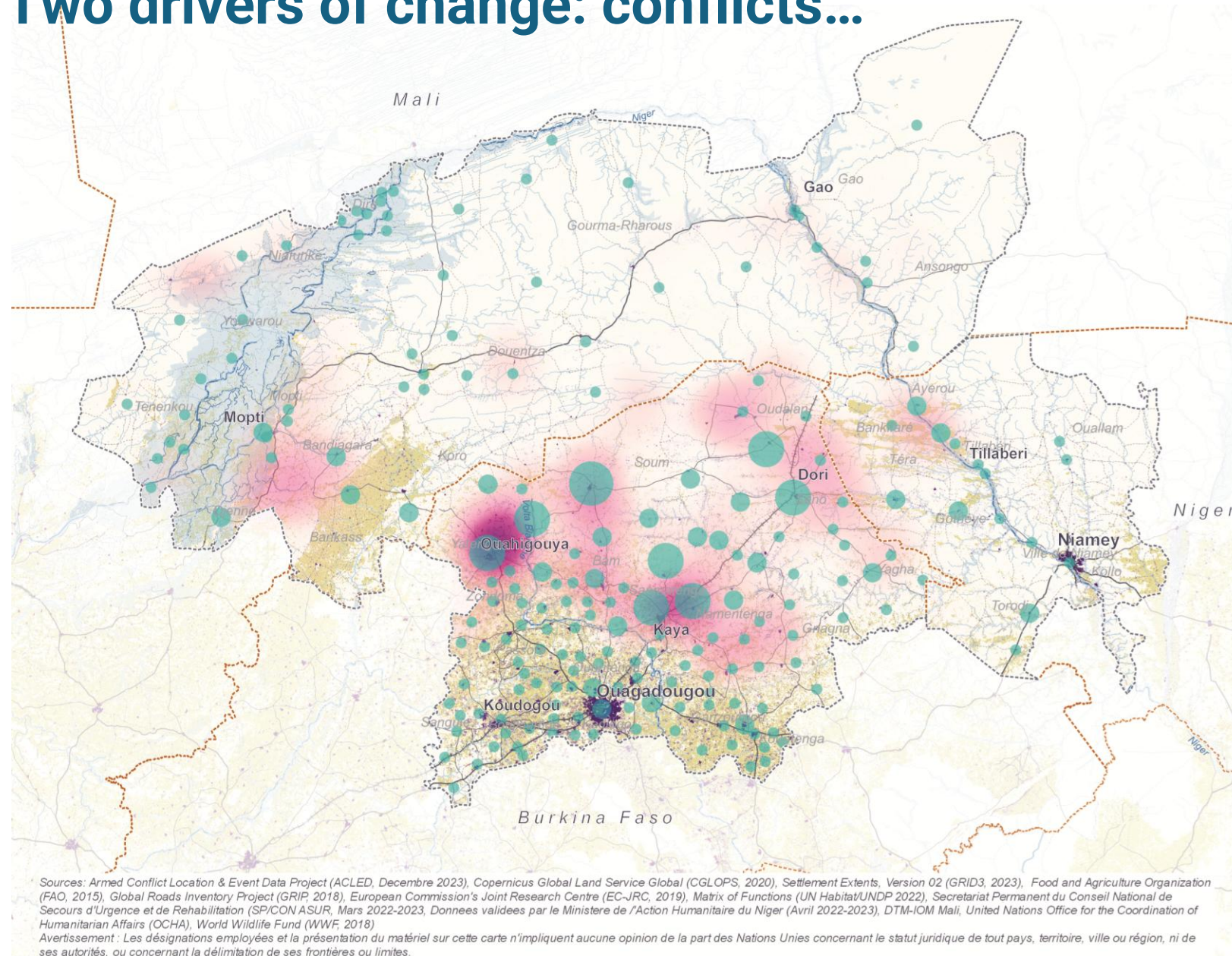


Sustainable spatial development



The Liptako-Gourma transboundary Area (extract from the Diagnosis)

Two drivers of change: conflicts...



Sources: Armed Conflict Location & Event Data Project (ACLED, Decembre 2023), Copernicus Global Land Service Global (CGLS, 2020), Settlement Extents, Version 02 (GRID3, 2023), Food and Agriculture Organization (FAO, 2015), Global Roads Inventory Project (GRIP, 2018), European Commission's Joint Research Centre (EC-JRC, 2019), Matrix of Functions (UN Habitat/UNDP 2022), Secrétariat Permanent du Conseil National de Secours d'Urgence et de Réhabilitation (SP/CON ASUR, Mars 2022-2023, Données validées par le Ministère de l'Action Humanitaire du Niger (Avril 2022-2023), DTM-IOM Mali, United Nations Office for the Coordination of Humanitarian Affairs (OCHA), World Wildlife Fund (WWF, 2018)

Avertissement : Les désignations employées et la présentation du matériel sur cette carte n'impliquent aucune opinion de la part des Nations Unies concernant le statut juridique de tout pays, territoire, ville ou région, ni de ses autorités, ou concernant la délimitation de ses frontières ou limites.

Infrastructures de transport

- Route nationale
- Route secondaire
- - - Route tertiaire
- ++++ Rail

Population déplacée

- 4 - 10000
- 10000 - 50000
- 50000 - 100000
- 100000 - 250000
- 250000 - 269915

Conflits ayant fait des victimes

- 1 - 25
- 25 - 50
- 50 - 75
- 75 - 100
- 100 - 136

Zones construites

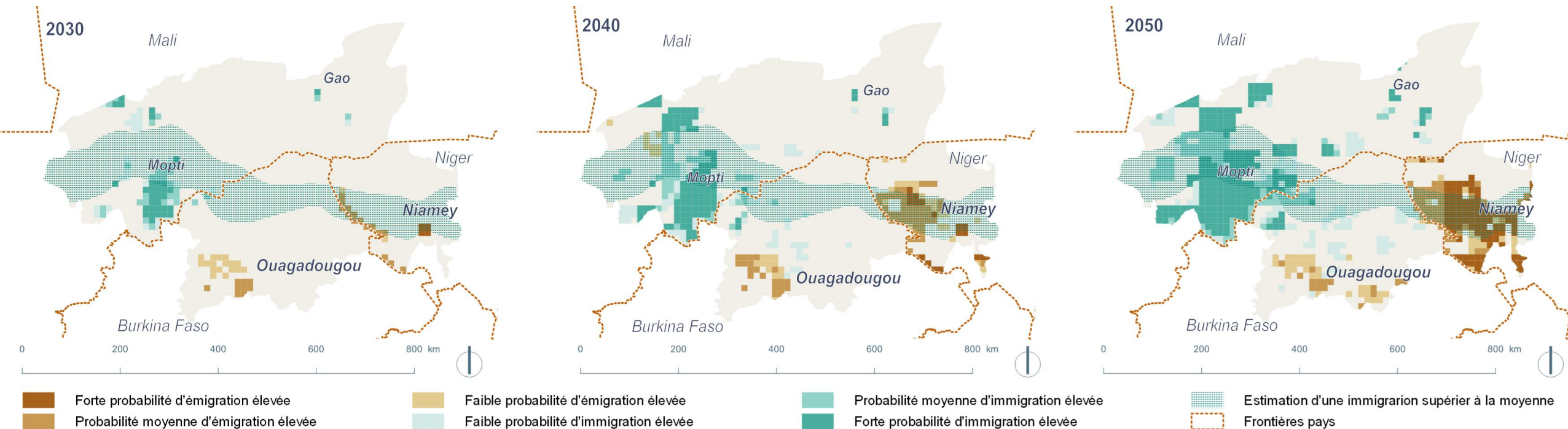
- Built-up Area
- Small Settlement Area
- Hamlet
- Agriculture

Ressources en eau et infrastructures hydrauliques

- Cours d'eau principal
- Plans d'eau
- Zones humides
- - - Frontières pays
- - - Zone d'étude du Liptako Gourma

The Liptako-Gourma transboundary Area (extract from the Diagnosis) ... and migrations due to climate change

Zones d'émigration et d'immigration prévues dues aux migrations climatiques en 2030, 2040 et 2050 dans la région du Liptako-Gourma



Source : Source: Rigaud, K. K., A. de Sherbinin, B. Jones, S. Adamo, D. Maleki, N. Abu-Ata, A. Casals Fernandez, A. Arora, T. Chai-Onn, and B. Mills. 2021. Groundswell Africa: Internal Climate Migration in West African Countries. Washington, DC: The World Bank. <https://openknowledge.worldbank.org/handle/10986/36404>.

Three key structural elements (*corridors, priority areas, and primary and secondary development poles/nodes*) to support the implementation of the SDSS's recommendations in the transboundary area



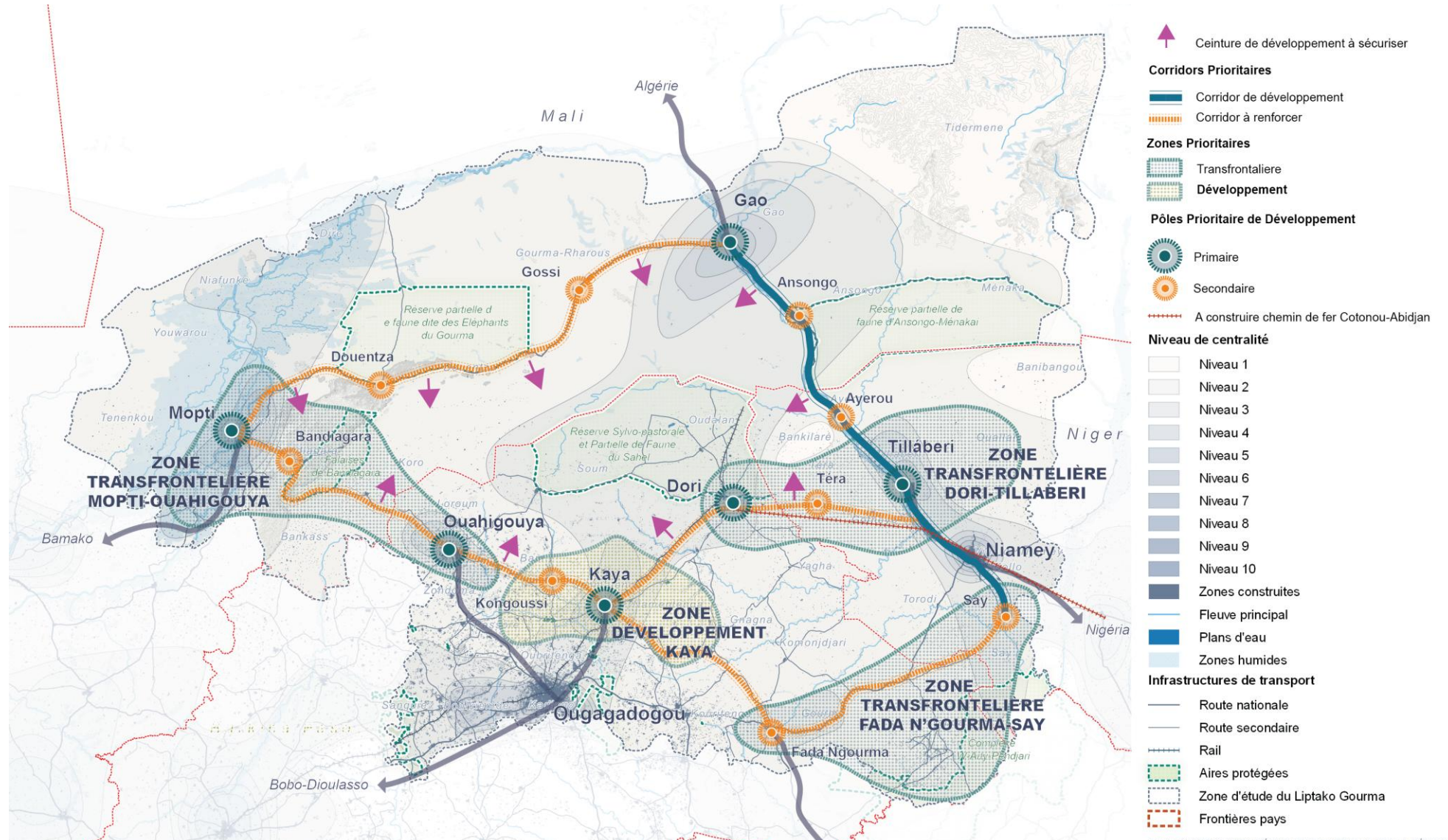
Reconnect the Sahel



Economic transformation and diversification, and Energy transition



Sustainable spatial development



Elaboration of the Spatial Strategic Action Plan for the Liptako-Gourma Area (SSAP-LGA)

Priority Actions

(broken down into activities and sub-activities)

Corridors

- Action 1
- Action 2

Priority Areas

- Action 3
- Action 4
- Action 5

Development Poles

- Action 6
- Action 7
- Action 8

Strategic Objectives

Improving **connectivity** in the Liptako-Gourma Area and **strengthening cross-border cooperation** through a territorial approach

Strengthen access to resilient **basic services**

Improving the conditions for **attracting strategic investments**

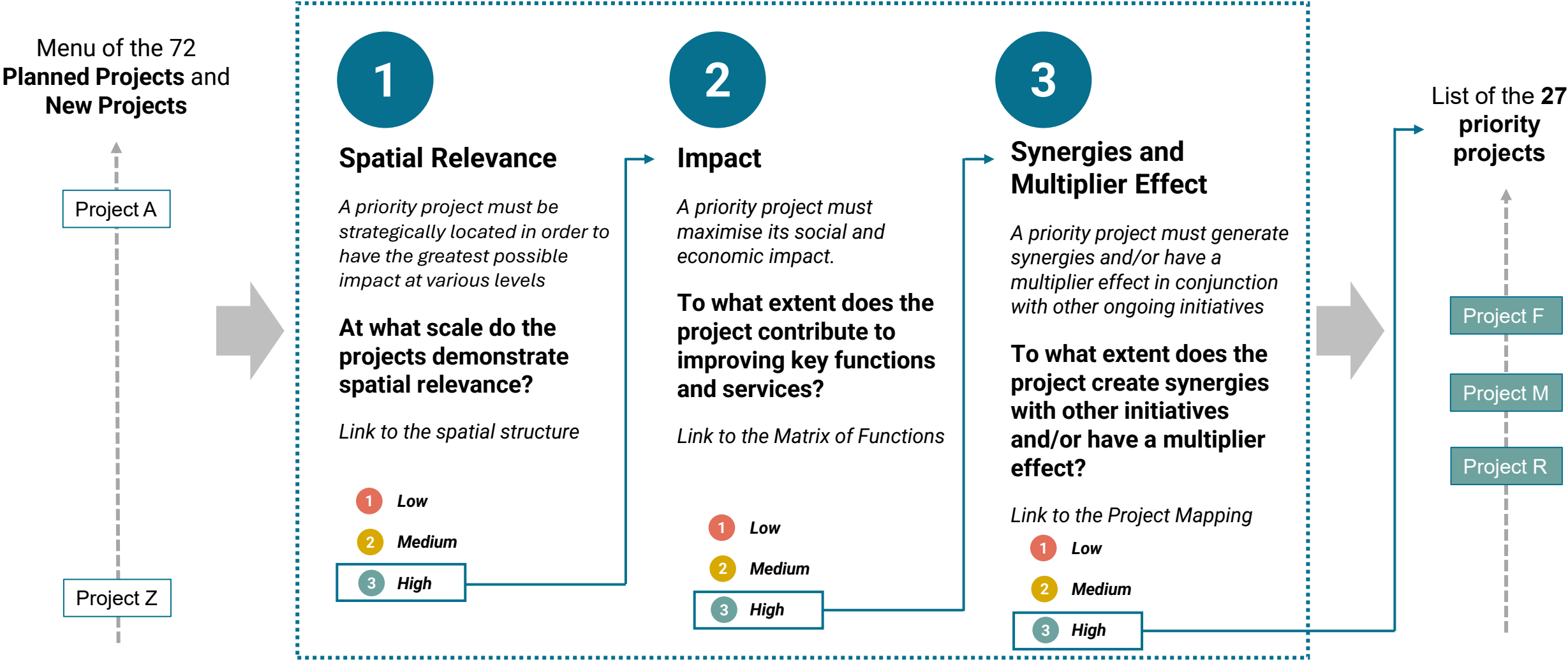
Promoting **sustainable local development**, with a **focus on women and young people**

Spatial Vision

« *The Liptako-Gourma, a **meeting territory** of the Sahel State Alliance, that **creates opportunities** and **homes resilient human settlements** providing **basic services to people** »*

Multicriteria Ranking Model for prioritising projects

This model followed a process based on **three criteria** for **prioritising key projects** from a **list of projects planned and proposed by the governments of Burkina Faso, Mali and Niger**.



Priority investment projects (Burkina Faso)

Les projets prioritaires prévus et proposés

Projets prioritaires transnationaux

- 1 Infrastructures de transmission
- 2 Construction de la route Kaya-Dori-Téra
- 3 Boucle ferroviaire Abidjan-Ouagadougou-Niamey-Cototonou-Lomé
- 7 Projet de gazoduc Ouagadougou-Niamey
- 8 Cadastre foncier
- 9 Cadastre minier
- 10 Commerce transfrontalier (CTCP/S)
- 11 Corridors de cultures fourragères dans les zones prioritaires
- 12 Gestion intégrée des ressources et équipements pastoraux
- 13 Transition à l'agroécologie
- 14 Gestion durable des exploitations minières
- 15 Actualisation et vulgarisation du Schéma d'Aménagement Territorial Intégré (SATI)
- 21 Chaîne de valeur viande-bétail-lait
- 22 Cluster cuirs et peaux
- 23 Chaîne de valeur agroalimentaire beur de karité
- 24 Chaîne de valeur textile-habillement-mode

Projets prioritaires nationaux

- 2 Plateforme de coordination sécuritaire
- 17 Schéma d'Aménagement Territorial Intégré (SDATI)
- 19 Élaboration ou révision du Schéma d'Aménagement Urbain
- 26 Infrastructures de santé

Projets prioritaires locaux

- 1 Postes de présence territoriale
- 16 Groupes Locaux de Coopération Transfrontalière (GLCT)
- 18 Cadre d'Action pour la Résilience Urbaine (CARU)
- 20 Logements sociaux pour les PDI
- 25 Centrales solaires
- 27 Centres de formation professionnelle

Les ressources et services existants

Ressources naturelles

- Métaux
- Or
- Energie solaire
- Energie fossile
- Barrages
- Cours d'eau principaux

Activités agropastorales

- Terres cultivées
- Agropastoralisme
- Industrie agroalimentaire
- Marché de bétail ou de viande
- Usine de produits laitiers

Services de santé et d'éducation

- Hôpital national ou régional
- Centre de formation professionnelle

Risques climatiques

- Aires protégées
- Zones à risque de dégradation des terres
- Zone présumée de forte immigration à l'horiz

Infrastructures de transport

- Route nationale
- Route secondaire
- Rail

Limites administratives

- Zone d'étude du Liptako Gourma
- Frontières pays
- Limite des régions
- Limites des provinces

La structure spatiale de la région du Liptako-Gourma



Les corridors prioritaires

- Corridor de développement
- Corridor à renforcer

Les zones prioritaires

- Transfrontalières
- de Développement

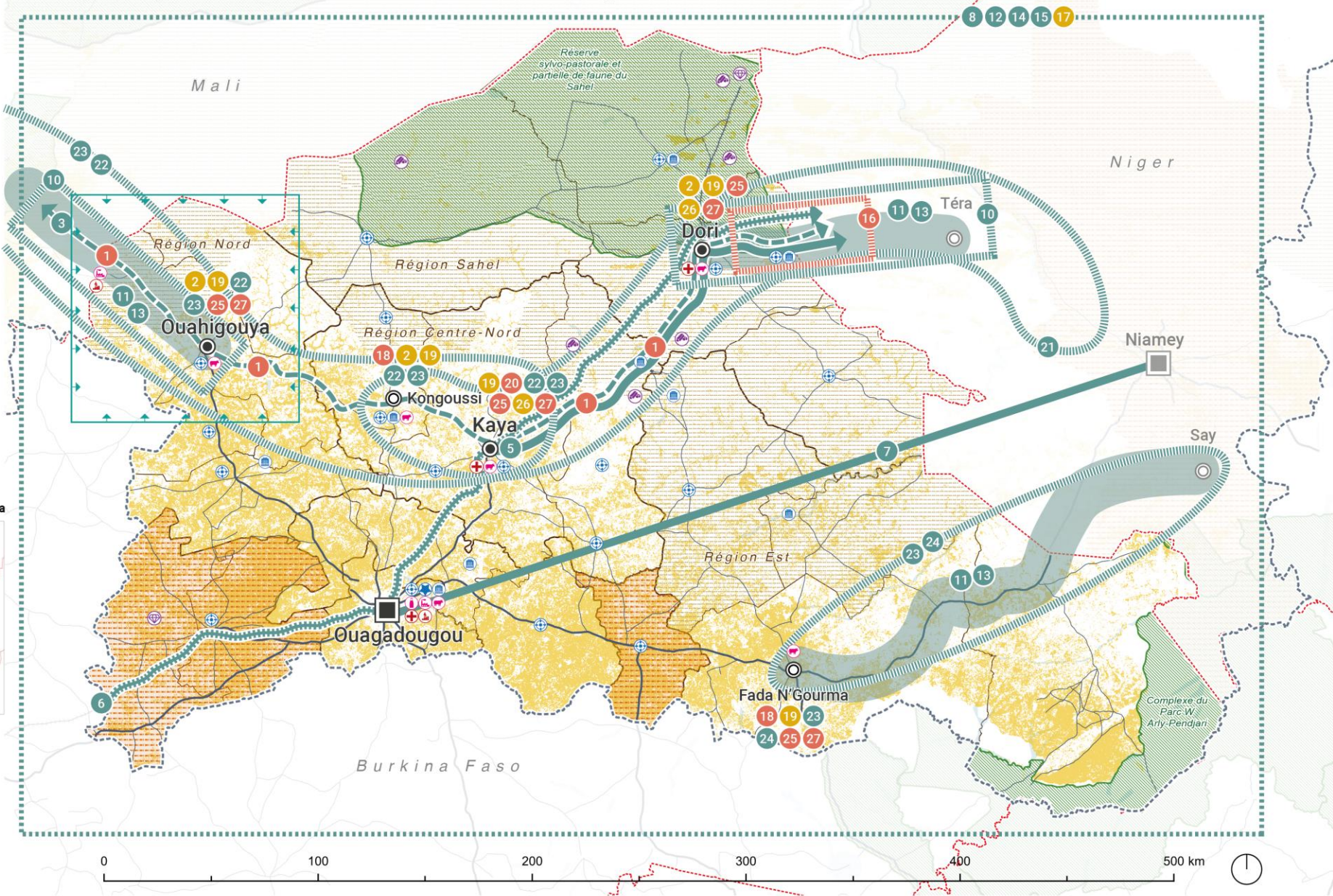
Les pôles prioritaires

- Primaires
- Secondaires

Niveau de centralité

- Niveau 1
- Niveau 2
- Niveau 3
- Niveau 4
- Niveau 5
- Niveau 6
- Niveau 7
- Niveau 8
- Niveau 9
- Niveau 10

Les projets prioritaires dans la zone transfrontalière du Liptako-Gourma : volet Burkina Faso



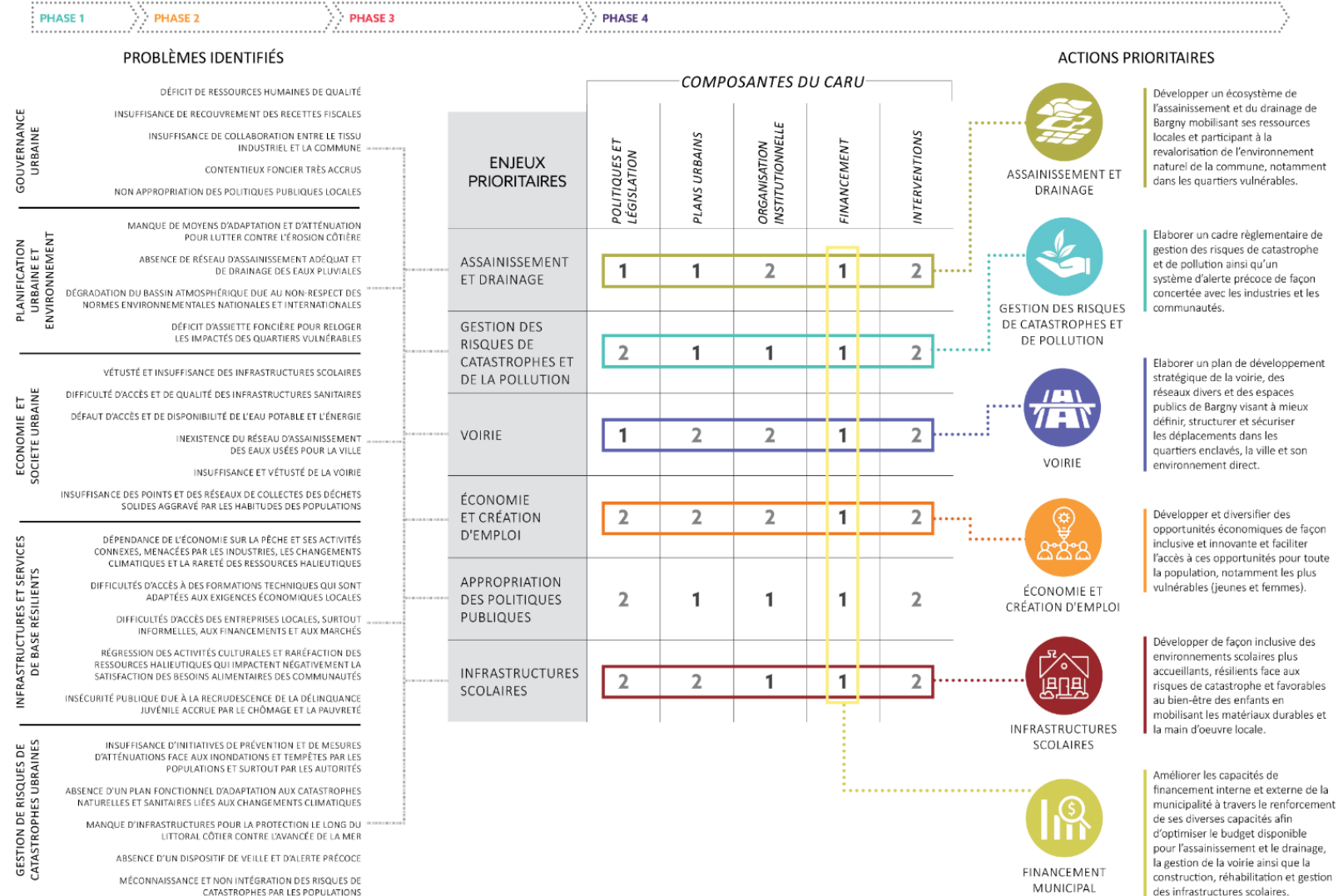
From a city plan to an investment/action plan – the importance of participatory approach and local ownership – the CityRAP approach



Figure : Cartographie des risques à l'échelle de la commune de Bargny.



Figure : Exercice de cartographie des risques au niveau de la commune de Bargny.





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