

Toward operationalizing Demographic Dividend

BUDGETING SENSITIVE TO DEMOGRAPHIC DIVIDEND: Mali

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Why budgeting sensitive to DD is important...?

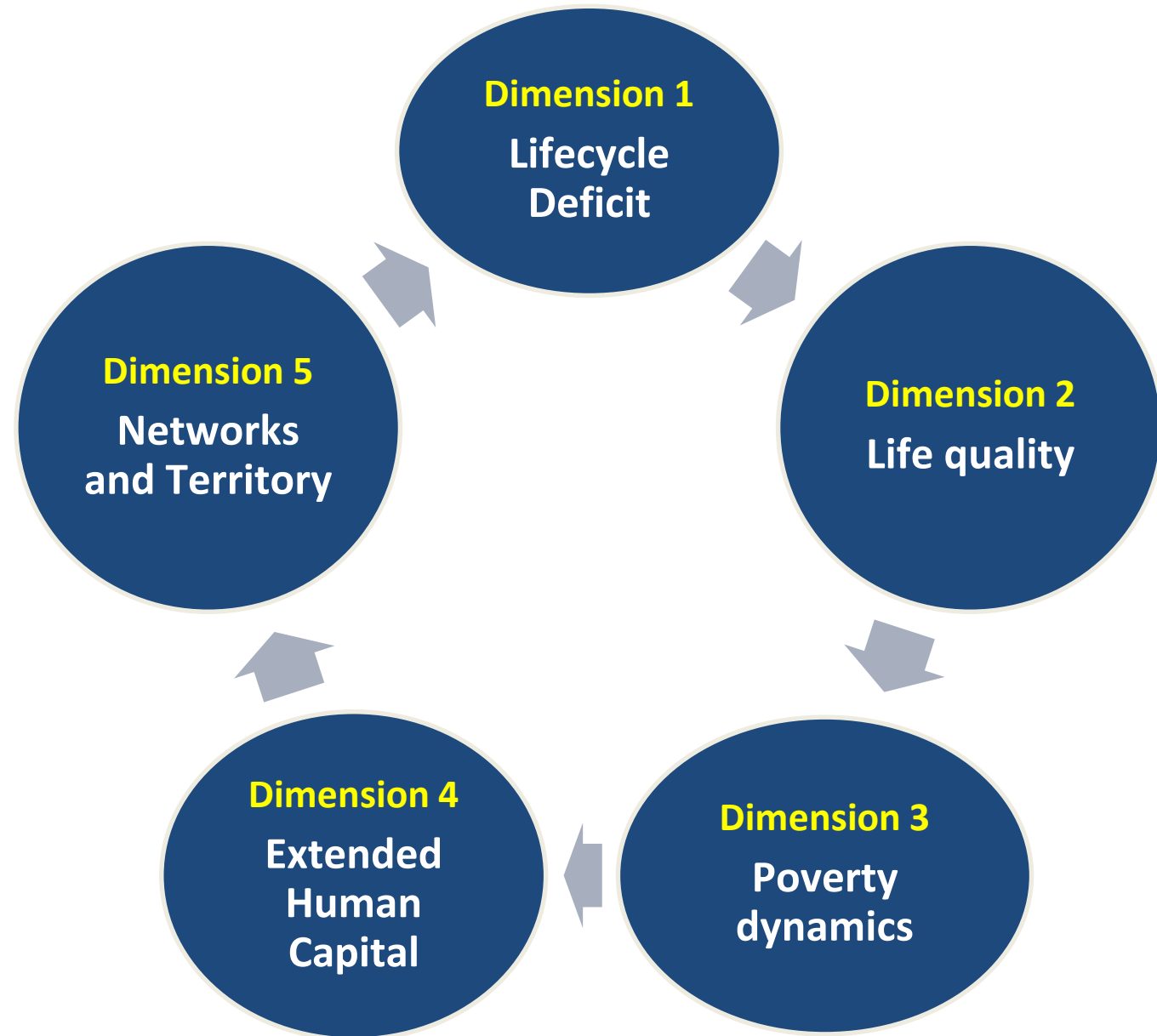
- Researches are being conducted on Demographic Dividend;
- Inviting Governments and partners to accelerate investments
- **National budgets are usually the primary tool for development in developing countries**
- **With huge social demand and other constraints (insecurity, environmental risks, ...), how budget structure can help accelerate DD harnessing?**

What is the Demographic Dividend Monitoring Index (DDMI)

Synthetic tool – allow comprehension of whole information related to DD

Monitor DD and Evaluation system for country and sub-regions

Virtual representation of the synthetic Indicator / Index



Mali DDMI 2015 (0,4220): need to perform on LCD coverage, network and land-use planning, and human capital development

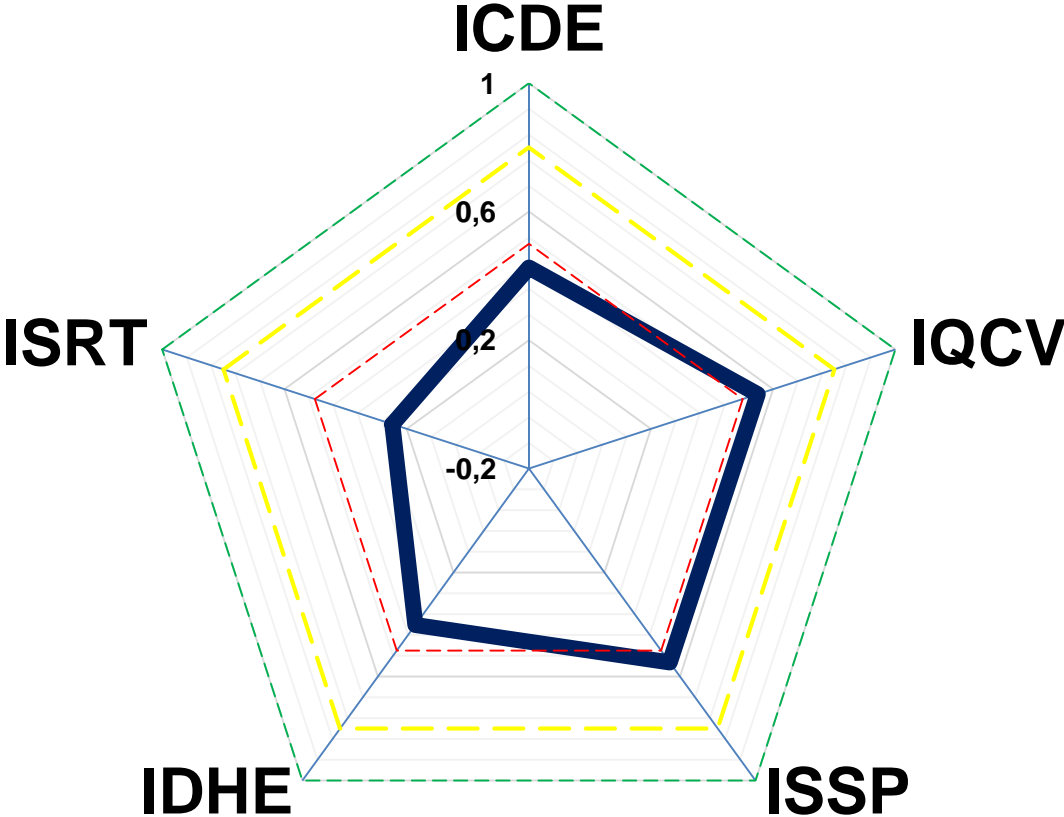
ICDE (lifecycle deficit coverage): **0,426**

IQCV (life quality) : **0,549**

ISSP (poverty transition) : **0,546**

IDHE (extended human capital) : **0,402**

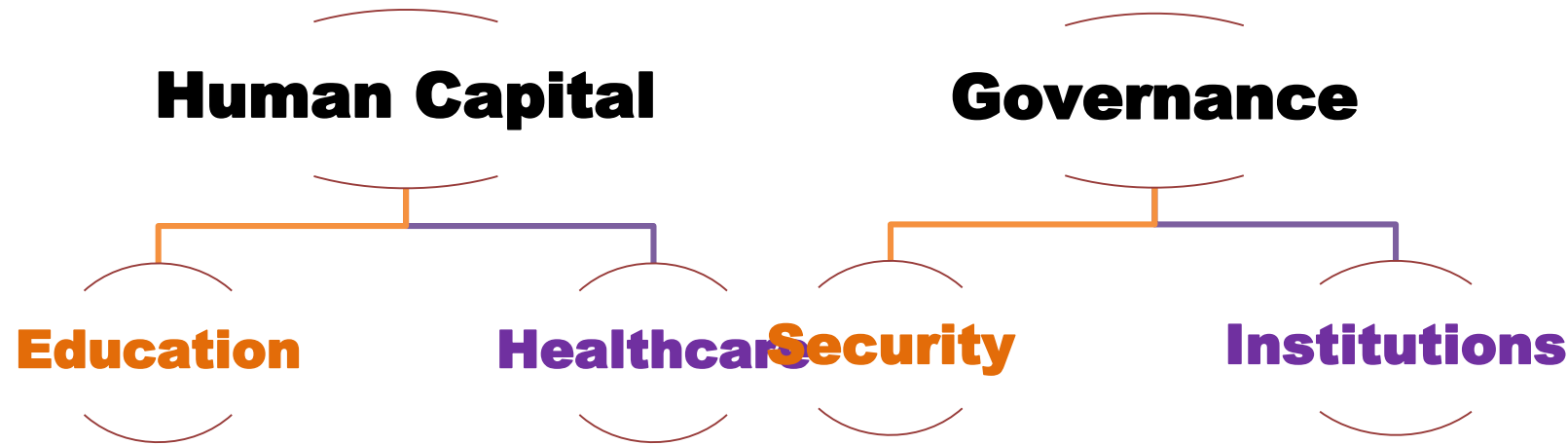
ISRT (networks and territory) : **0,247**



Analyzing the sensitivity of the budget: The method

- 1| Restructuration of the classic budget (2008 – 2018) to functional budget dimensions related to DD dimensions:
 - Human capital
 - Governance
 - Economic structure and transformation
 - Professional and social networks
- 2| Linking functions to DD dimensions
- 3| Modeling and determination of budget elasticities
- 4| Analysis of budget sensitivity
- 5| Propose budget structure to reach more gain on DD harnessing

Reorganizing budget structure (4 budget components & 8 functions)



Note: The Human Capital function regroup all expenditures (recurrent, investments and transfer) on health and education for all Departments, not only Education and Health Ministries



From actual « budget – programme » to DD sensitive budget functions

Actual functional classification (classic)

Democracy and Governance

Peace, Security and Social cohesion

Inclusive Growth and Economic Transformation

Environment and Climatic changes

Human Capital

DD sensitive structure classification

Governance [Institutions, Security]

Economic structure [Energy – Engineering and Others economics sectors]

Professional and Social Networks [Communication / Social Network and Leisure]

Human Capital [Education and Health]

Determination of budget elasticity for each subdimension

- Elasticity function :

$$Indice_DDMI_j = \sum_{k=1}^3 \beta_{jk} \log(Budget_{jk}) + \varepsilon_j$$

k		j	
1	Recurrent	1	Health
2	Investment	2	Education
3	Transfers / Subventions	3	Institutions
		4	Security
		
		8	Economy

Budget structure

Average (2008 - 2018) functional budget structure for 2008 - 2018

		RECURRENT	INVESTMENT	TRANSFERS & SUBVENTIONS	TOTAL
HUMAN CAPITAL	Health	2,6%	1,0%	1,8%	5,4%
	Education	13,9%	2,0%	2,3%	18,2%
GOVERNANCE	Institutions	7,3%	3,8%	1,9%	13,1%
	Security	9,1%	7,5%	0,0%	16,6%
PROFESSIONAL AND SOCIAL NETWORK	Professional network	0,0%	0,5%	0,4%	1,0%
	Social Network	1,0%	1,0%	3,1%	5,1%
TRANSFORMATION OF ECONOMY	Energy - Engineering	0,8%	7,9%	2,2%	10,9%
	Economy	7,2%	16,3%	6,1%	29,7%
	Total	42,0%	40,1%	18,0%	100,0%

Determined elasticity budget for BSDD functions

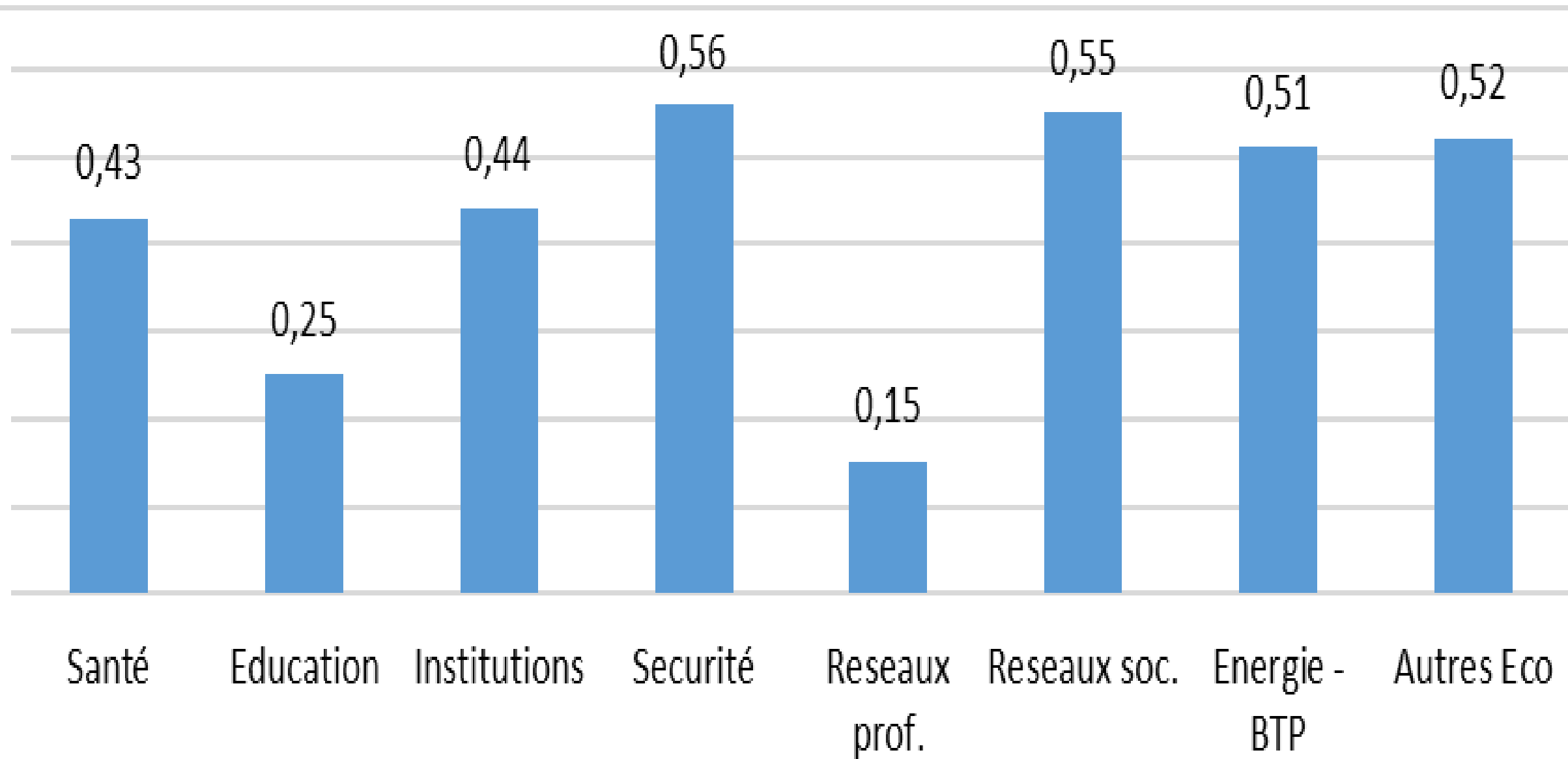
Change in $DDMI_j$ index due to an increase of b1 point percent of budget k

	Budget elasticity		
	FONC.	INV.	TRF/SUBV
Health	0,166	0,060	0,109
Education	0,049	-0,007	0,023
Institutions	0,044	0,041	0,047
Sucurity	0,113	0,022	-0,011
Prof. network	0,048	0,030	-0,012
Social network	0,302	-0,125	0,007
Energy – Engineer	-0,007	0,097	0,037
Economic	0,033	0,088	0,022

Using the method to simulate budget and/or DDMI

Year	Health		Education		Institutions		Security	
	Simulated	Realized	Simulated	Realized	Simulated	Realized	Simulated	Realized
2014	41,92%	43,32%	26,53%	25,51%	44,14%	44,07%	55,4%	56,1%
2015	45,31%	44,58%	25,27%	25,81%	43,90%	44,29%	55,0%	55,3%
2016	44,40%	45,74%	25,46%	25,44%	44,70%	43,09%	54,8%	54,3%
2017	42,94%	42,17%	24,41%	26,58%	44,59%	42,10%	56,0%	57,3%
2018	42,04%	42,17%	24,32%	24,42%	42,50%	42,10%	55,08%	55,3%
2019	43,35%		25,43%		44,48%		55,6%	

Simulations of DDMI



Simulations of DDMI

- Application of the developed methodology indicates that the average budget structure will increase the DDMI from 0,417 in 2017 to 0,420 in 2019 with a total budget of approximately 5,8 billion USD.
- The results are consistent with the financing perspectives adopted in the national development plan document 2019 – 2023

Conclusion and discussions for more effective public and budget policies

- Increase budget efficacy through the reinforcement between strategic planning (CREDD) and budgeting
- Invest more in Human capital, Health and Education. This can allow rapid demographic transition and empowerment of youth and women for best lifecycle deficit coverage
- Take into account the demographic trend and structure in the evaluation of public investments and policies;
- Extend social protection programs (universal health insurance, resilience...)
- Rationalize expenditures in the « Institutions » function.

Thank you!

