

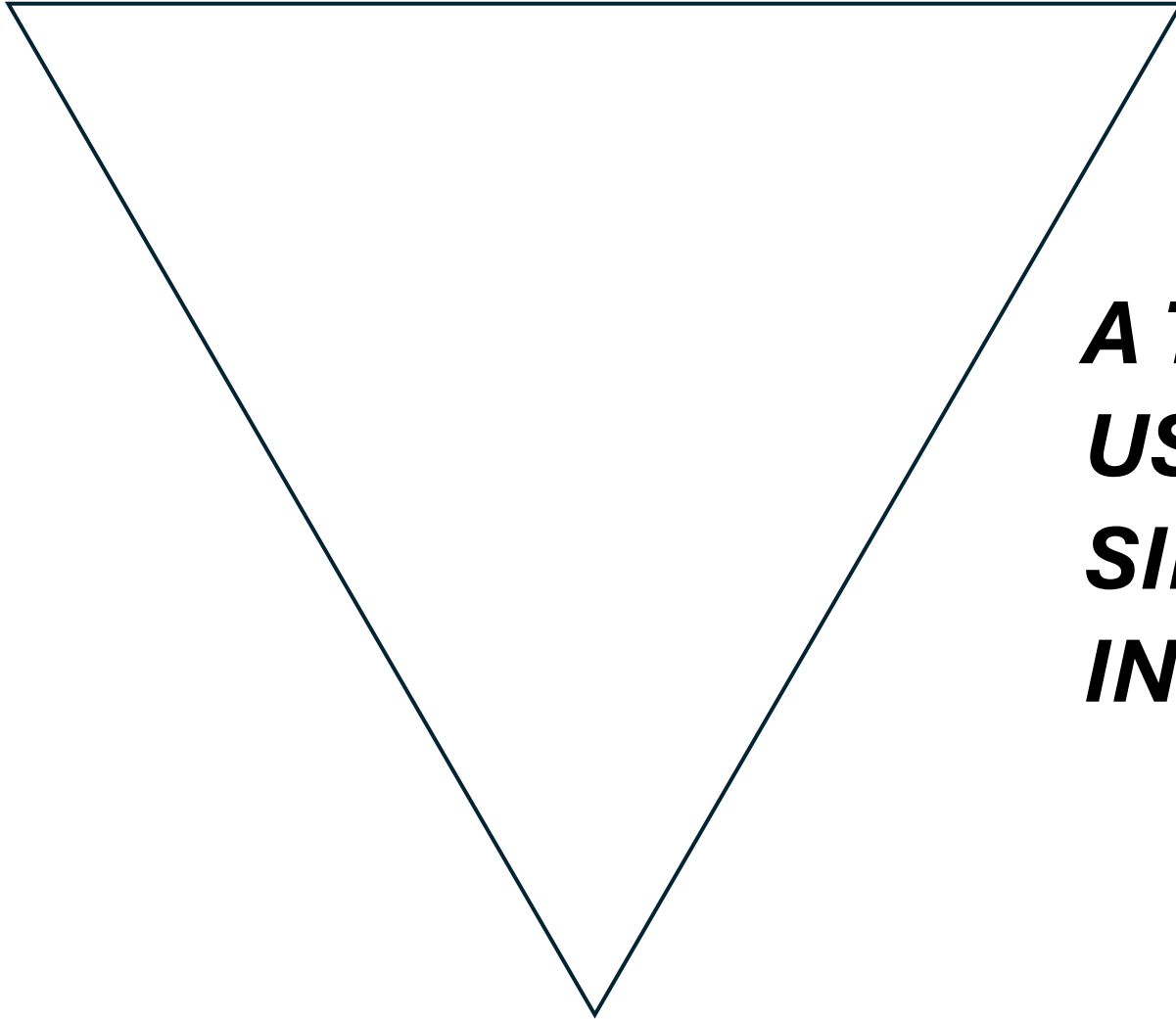


**AFRICA CENTER  
FOR STRATEGIC STUDIES**

# **Managing Security Resources in Africa**

Dr. Gary Milante  
June 2024

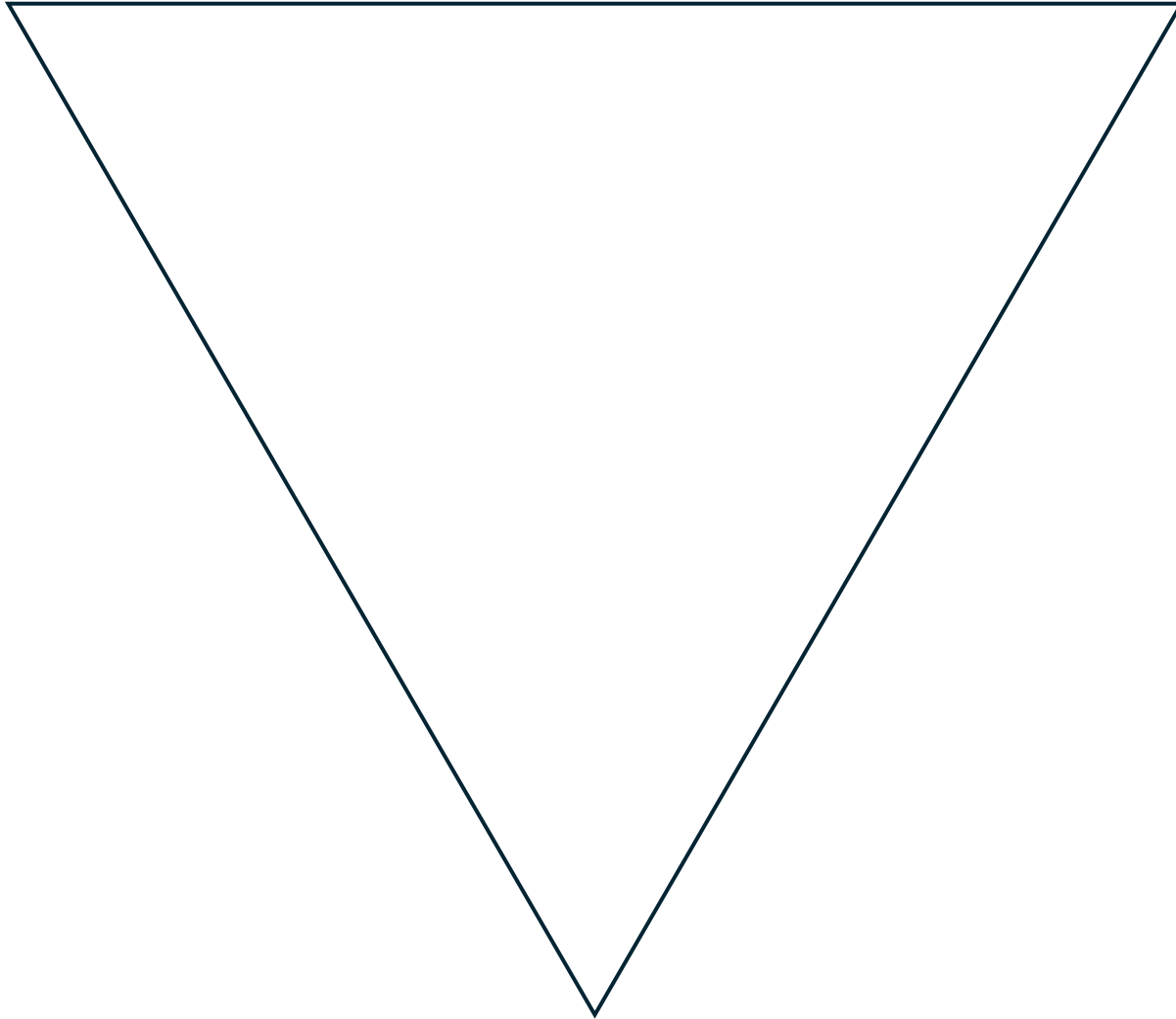
# ***TERNARY GRAPH***



***A TERNARY GRAPH IS A  
USEFUL TOOL FOR  
SIMPLIFYING BUDGETS  
IN THREE AREAS.***

WORK

LEISURE

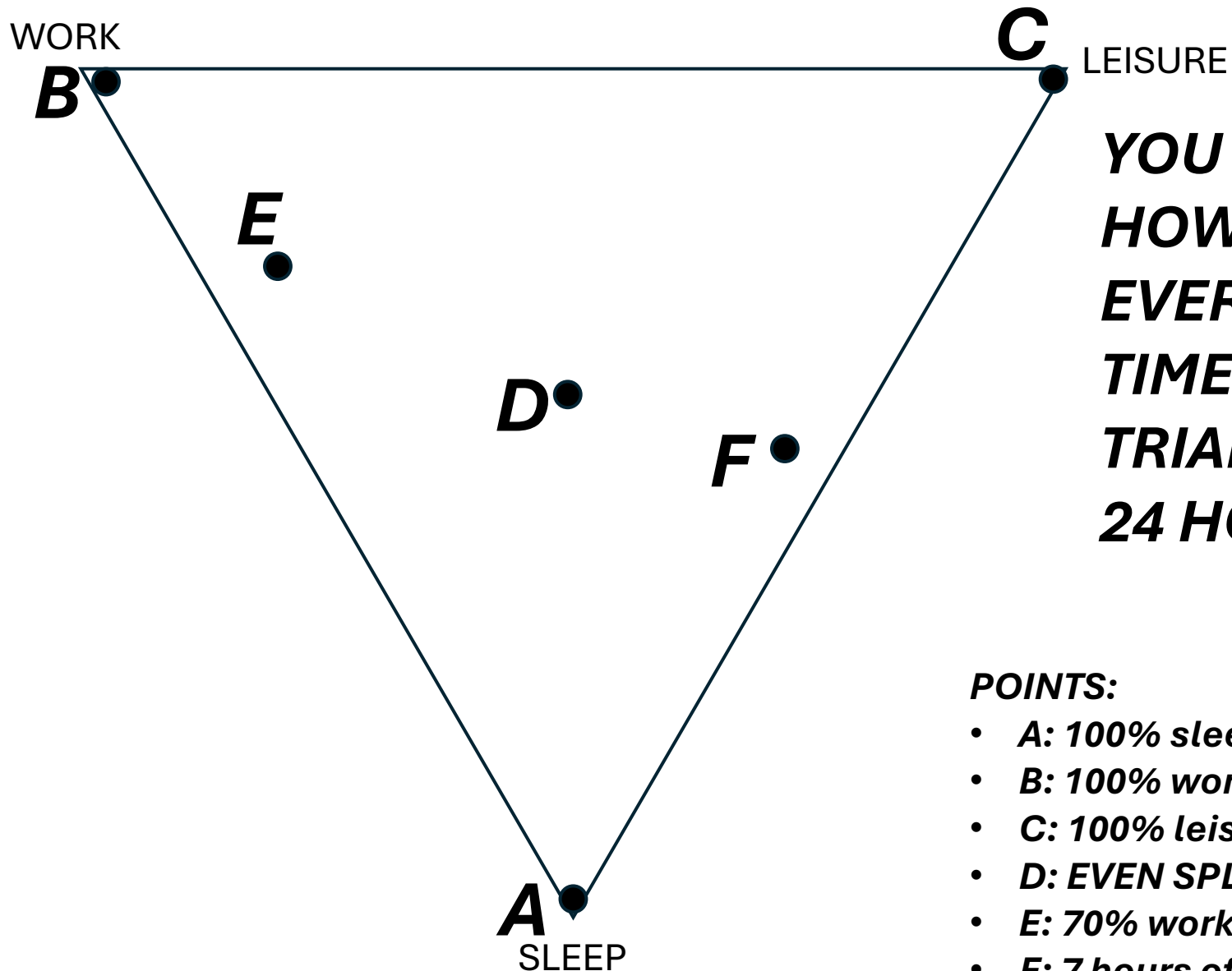


SLEEP

***HOW DOES IT WORK?***

***DIVIDE ANYTHING INTO  
THREE AREAS. TO START,  
LET'S CONSIDER HOW WE  
SPEND OUR 24 HOUR DAYS:***

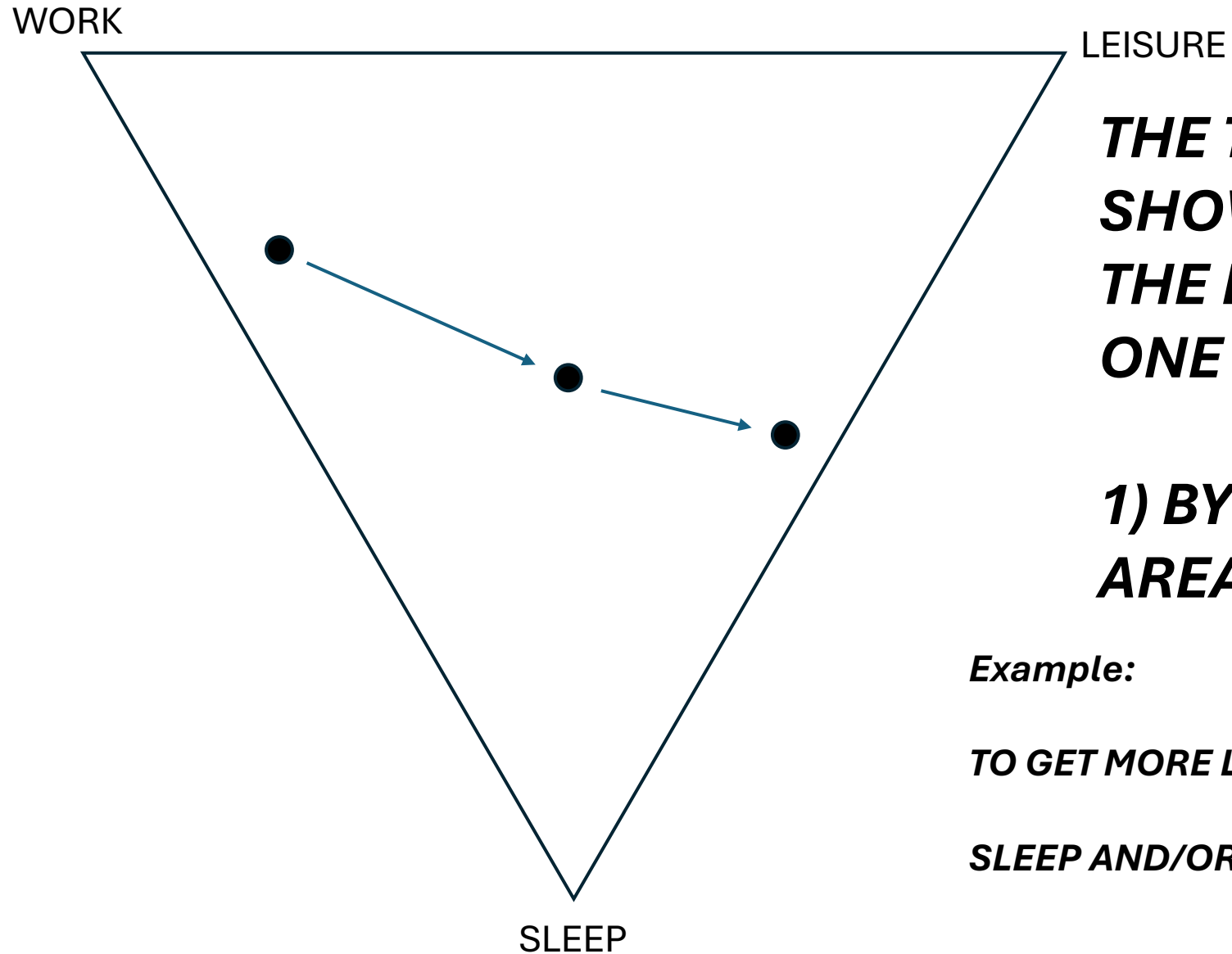
- ***SLEEPING***
- ***WORKING***
- ***LEISURE***



***YOU CAN DIVIDE YOUR DAY  
HOWEVER YOU LIKE, BUT  
EVERY POSSIBLE BUDGET OF  
TIME MUST FALL IN THE  
TRIANGLE. YOU ONLY HAVE  
24 HOURS IN THE DAY!***

**POINTS:**

- ***A: 100% sleep***
- ***B: 100% work***
- ***C: 100% leisure***
- ***D: EVEN SPLIT (1/3 each)***
- ***E: 70% work, 20% sleep, 10% leisure***
- ***F: 7 hours of sleep, 4 hours of work, 13 hours of leisure***



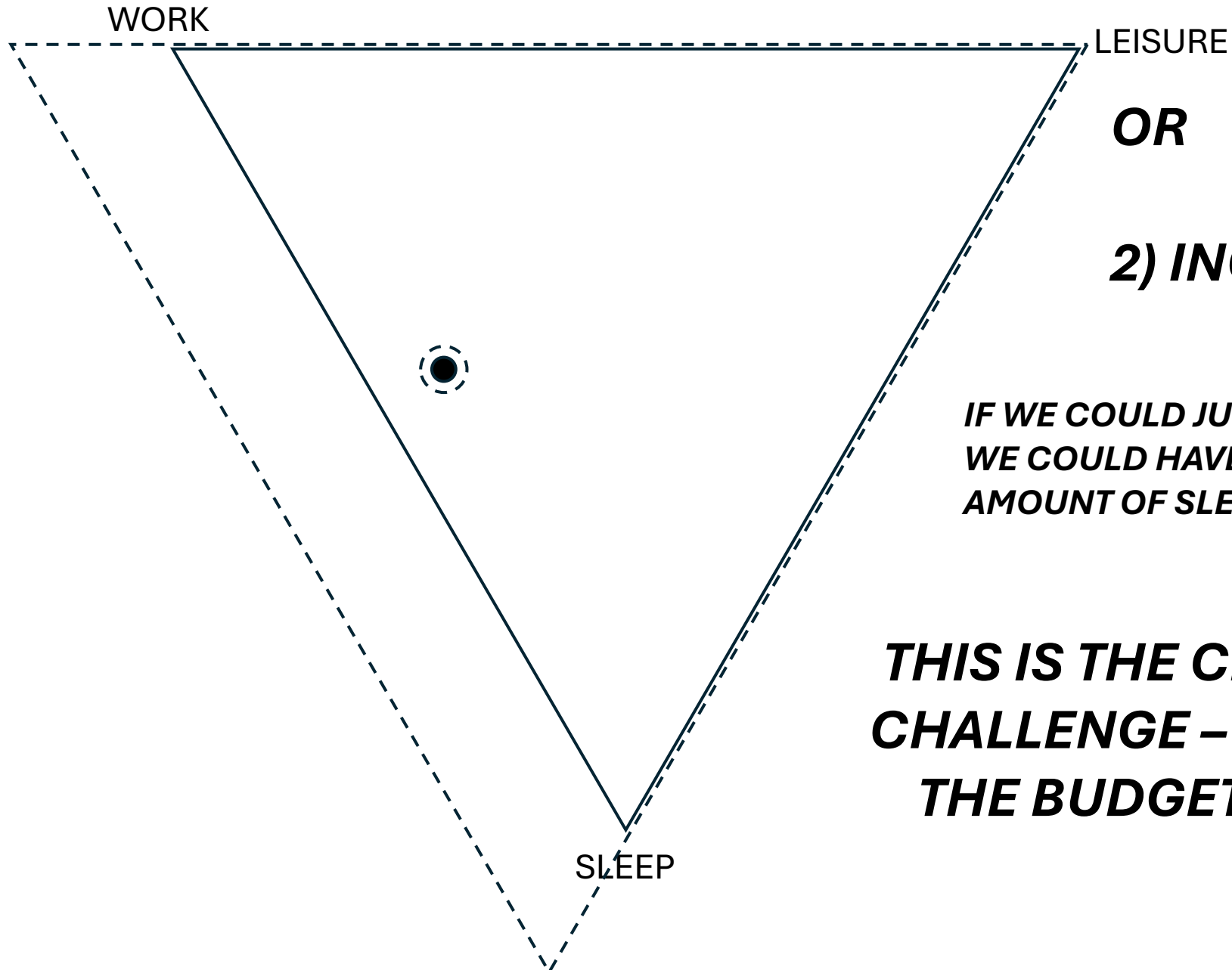
***THE TERNARY GRAPH  
SHOWS THAT CHANGES IN  
THE BUDGET HAPPEN IN  
ONE OF TWO WAYS:***

***1) BY REDUCING OTHER  
AREAS...***

***Example:***

***TO GET MORE LEISURE, WE MUST HAVE LESS:***

***SLEEP AND/OR WORK***



**OR**

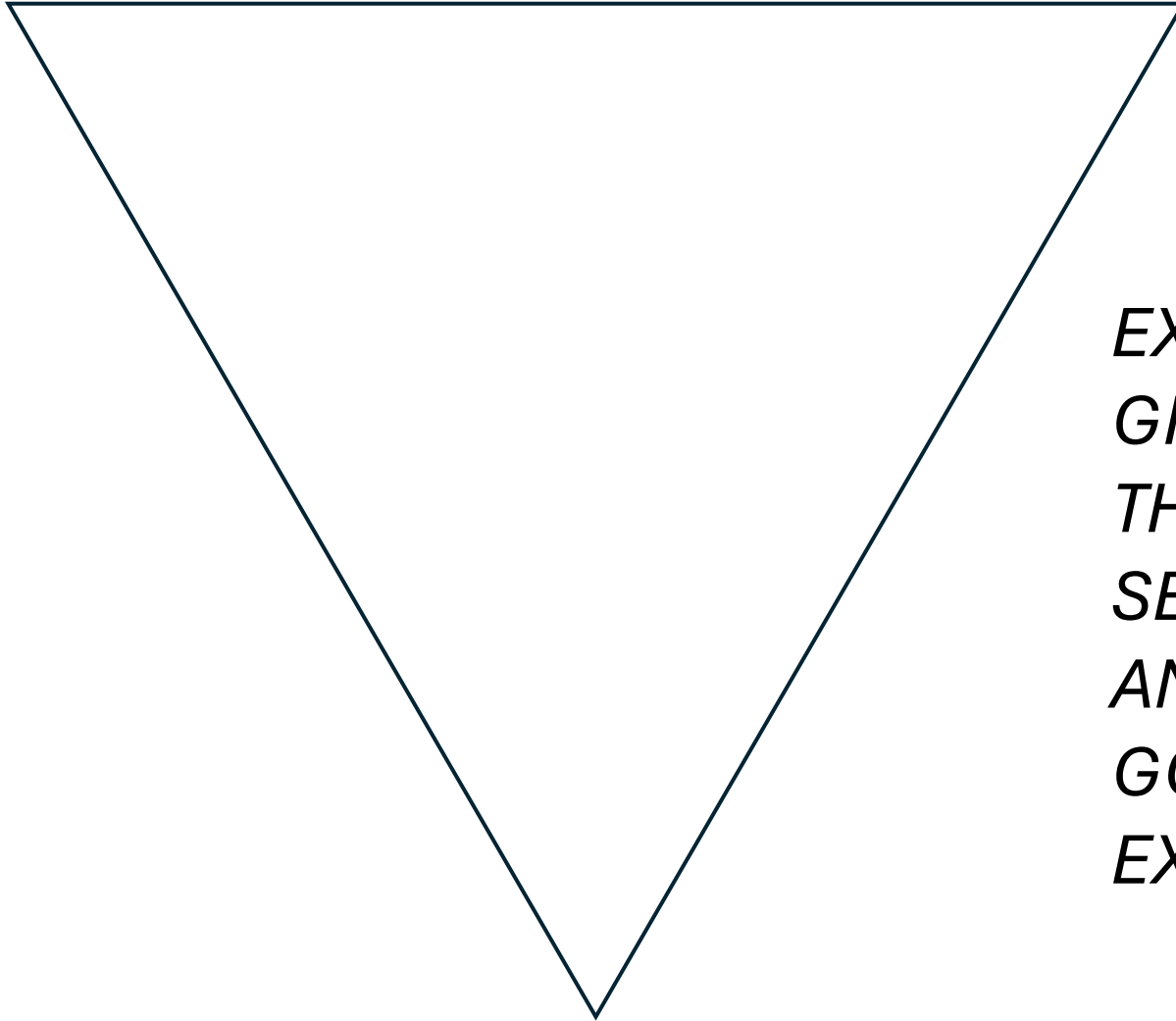
**2) INCREASING THE BUDGET**

**IF WE COULD JUST MAKE THE DAY 25 HOURS LONG...  
WE COULD HAVE MORE LEISURE WITH THE SAME  
AMOUNT OF SLEEP AND WORK!**

**THIS IS THE CRUX OF EVERY BUDGET  
CHALLENGE – IF YOU CANNOT GROW  
THE BUDGET YOU MUST TRADE OFF  
INSIDE THE BUDGET.**

**SECURITY  
EXPENDITURES**

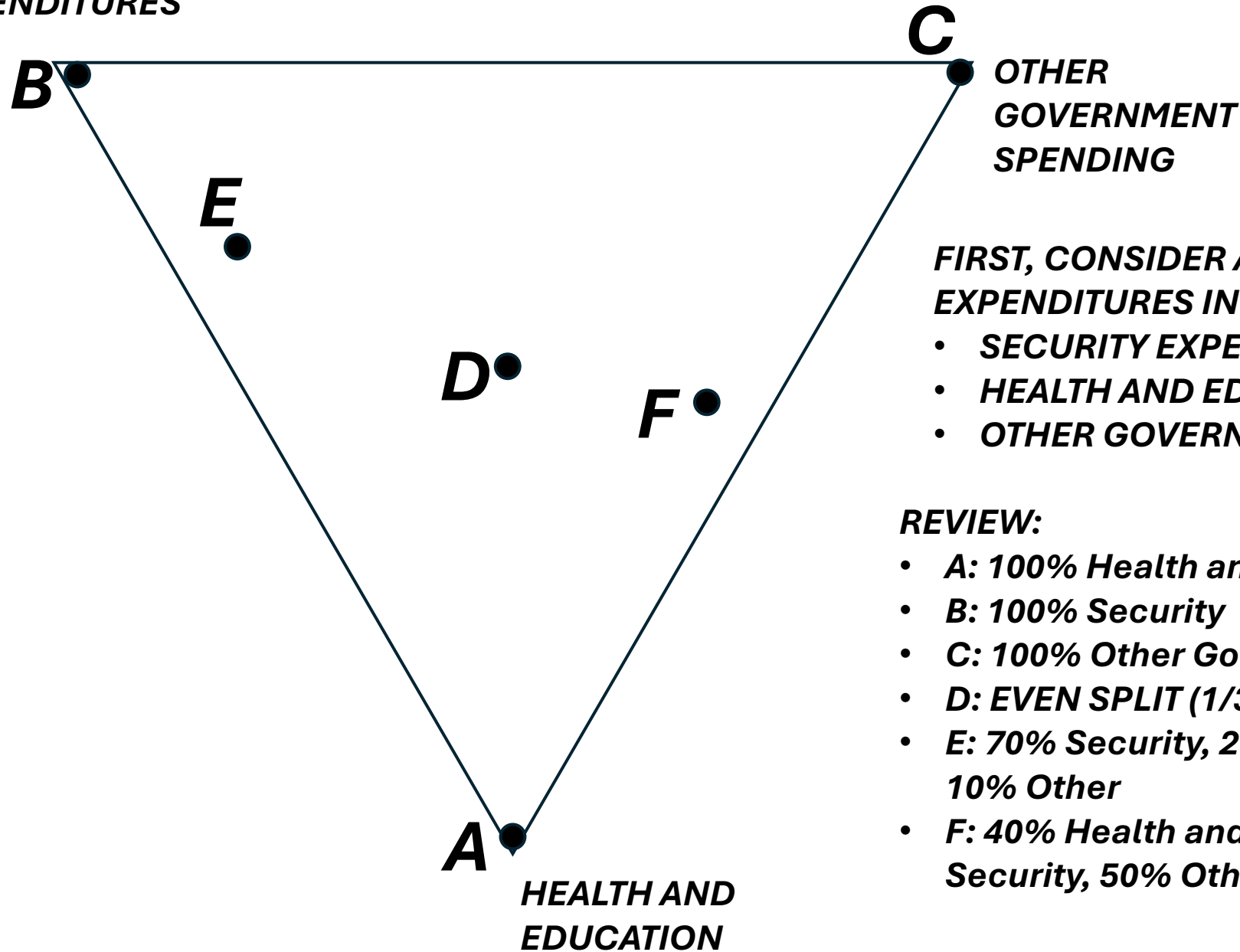
**OTHER  
GOVERNMENT  
SPENDING**



*EXERCISE: USE THE TERNARY  
GRAPH TO DEMONSTRATE  
THE TRADE-OFFS BETWEEN  
SECURITY EXPENDITURES  
AND OTHER FORMS OF  
GOVERNMENT  
EXPENDITURES*

**HEALTH AND  
EDUCATION**

**SECURITY  
EXPENDITURES**



**OTHER  
GOVERNMENT  
SPENDING**

**FIRST, CONSIDER ALL GOVERNMENT  
EXPENDITURES IN THREE TYPES:**

- **SECURITY EXPENDITURE**
- **HEALTH AND EDUCATION EXPENDITURE**
- **OTHER GOVERNMENT EXPENDITURE**

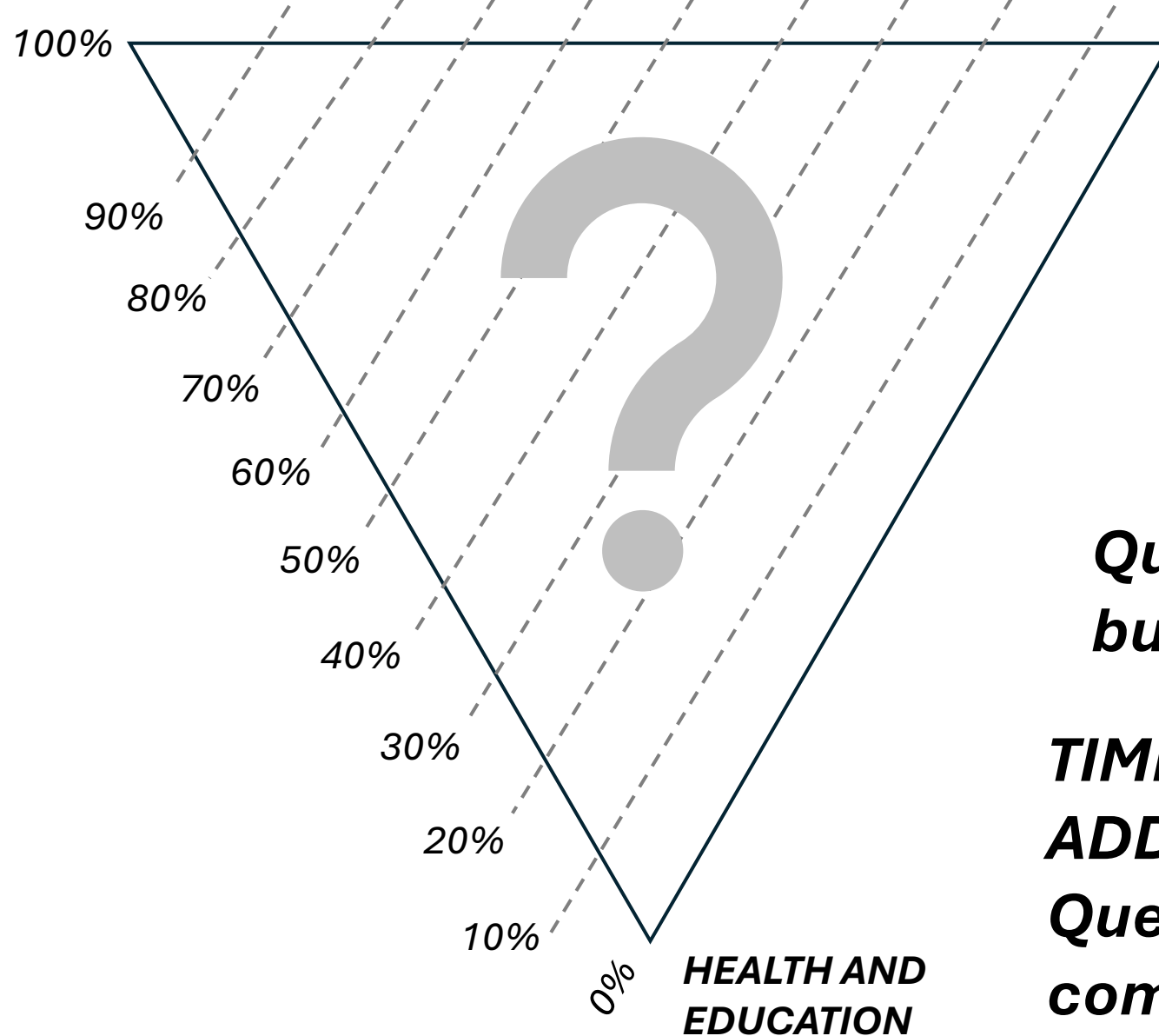
**REVIEW:**

- **A: 100% Health and Education**
- **B: 100% Security**
- **C: 100% Other Government Spending**
- **D: EVEN SPLIT (1/3 each)**
- **E: 70% Security, 20% Health/Education, 10% Other**
- **F: 40% Health and Education, 10% Security, 50% Other Government Spending**



**SECURITY  
EXPENDITURES**

# **EXERCISE: USE THE WORKSHEET PROVIDED**



**OTHER  
GOVERNMENT  
SPENDING**

***Question 1: What do you think the ternary graph looks like for your country?***

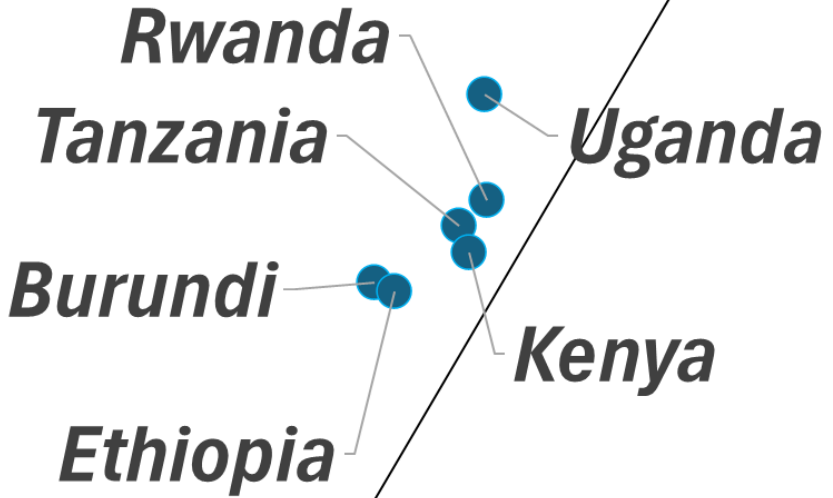
***Question 2: What is “the right budget” for your country?***

***TIME PERMITTING, USE AN ADDITIONAL WORKSHEET:***

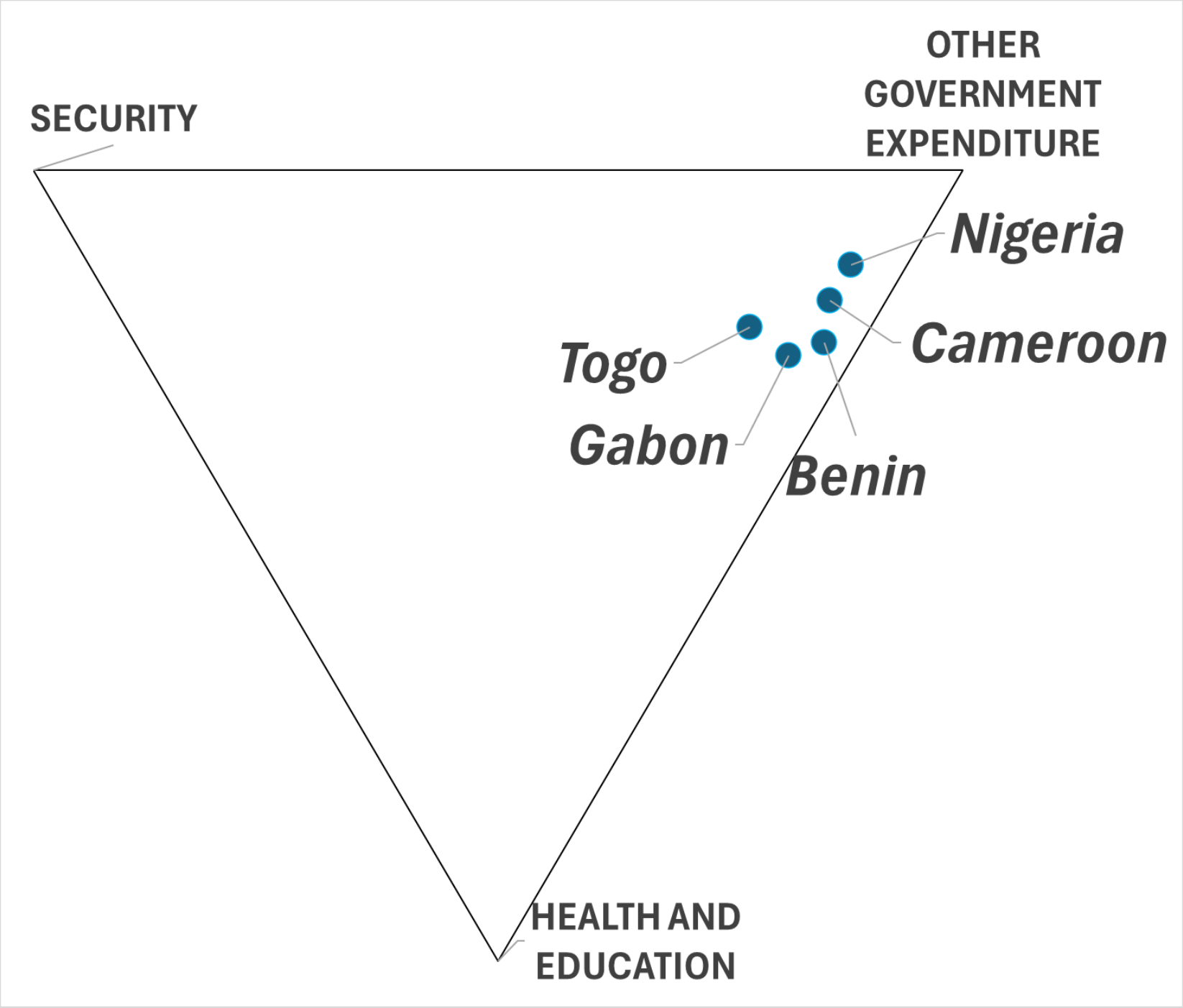
***Question 3: What do other relevant comparator countries look like?***

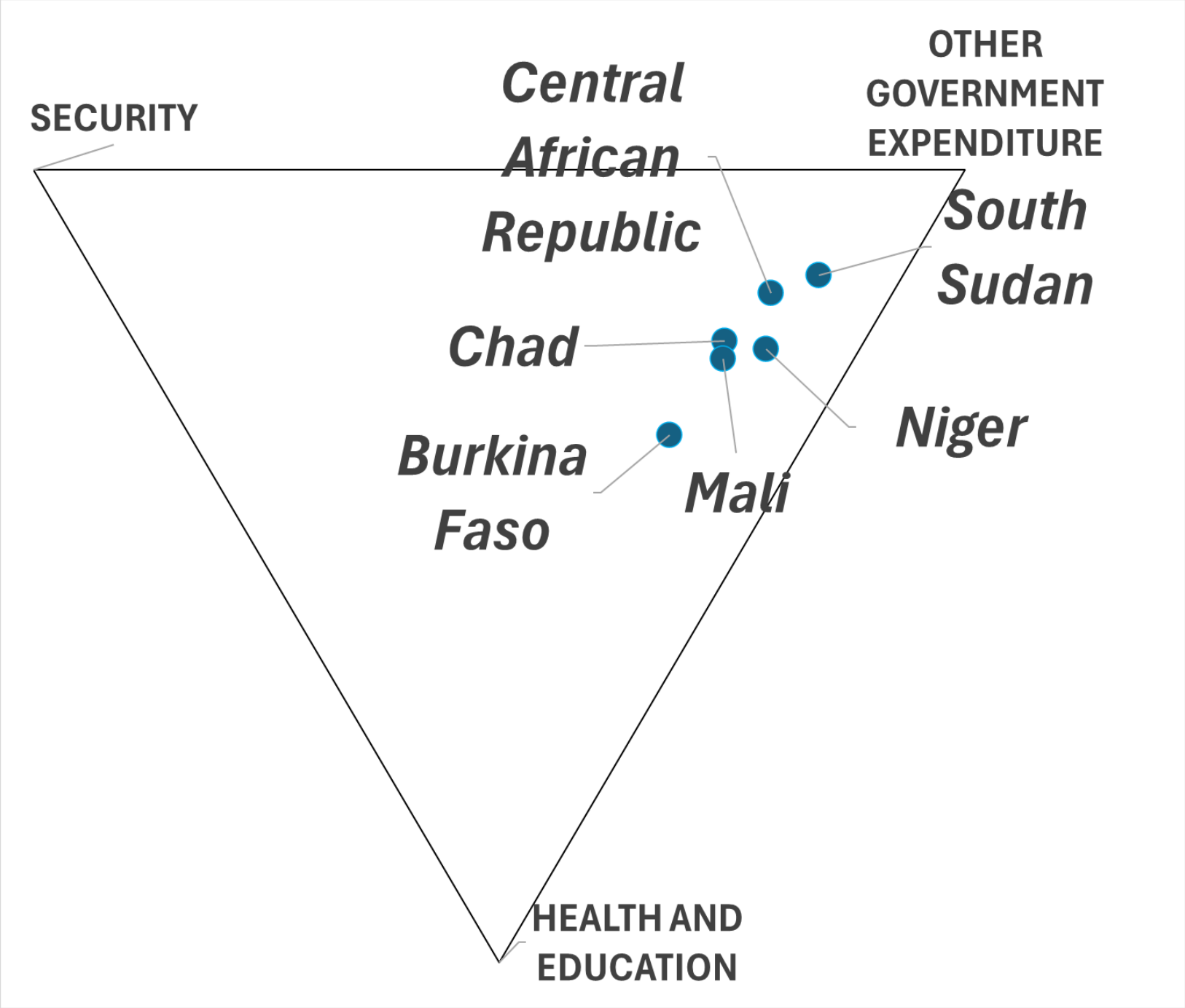
**SECURITY**

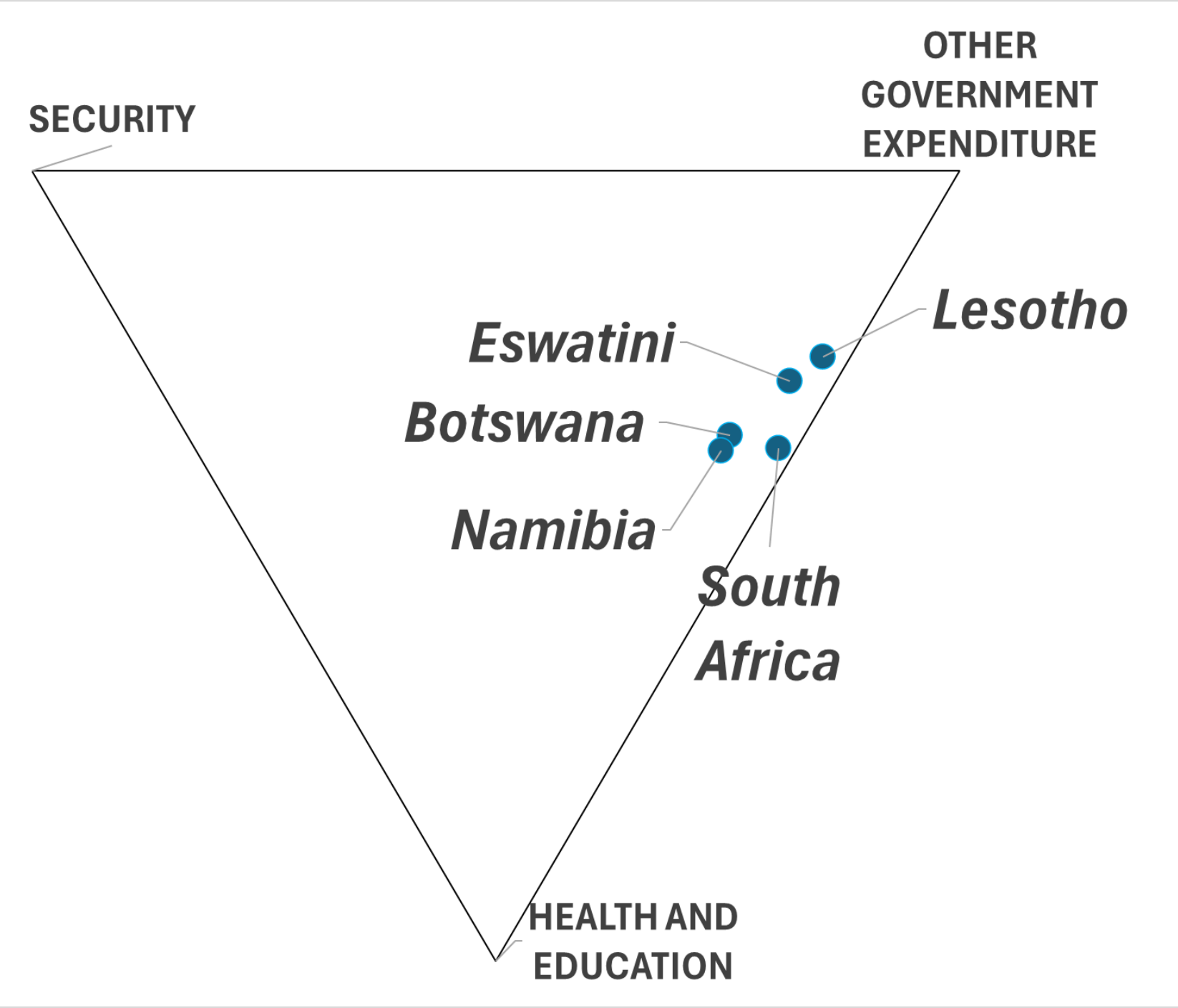
**OTHER  
GOVERNMENT  
EXPENDITURE**



**HEALTH AND  
EDUCATION**







**SECURITY**

**OTHER  
GOVERNMENT  
EXPENDITURE**

*Zambia*

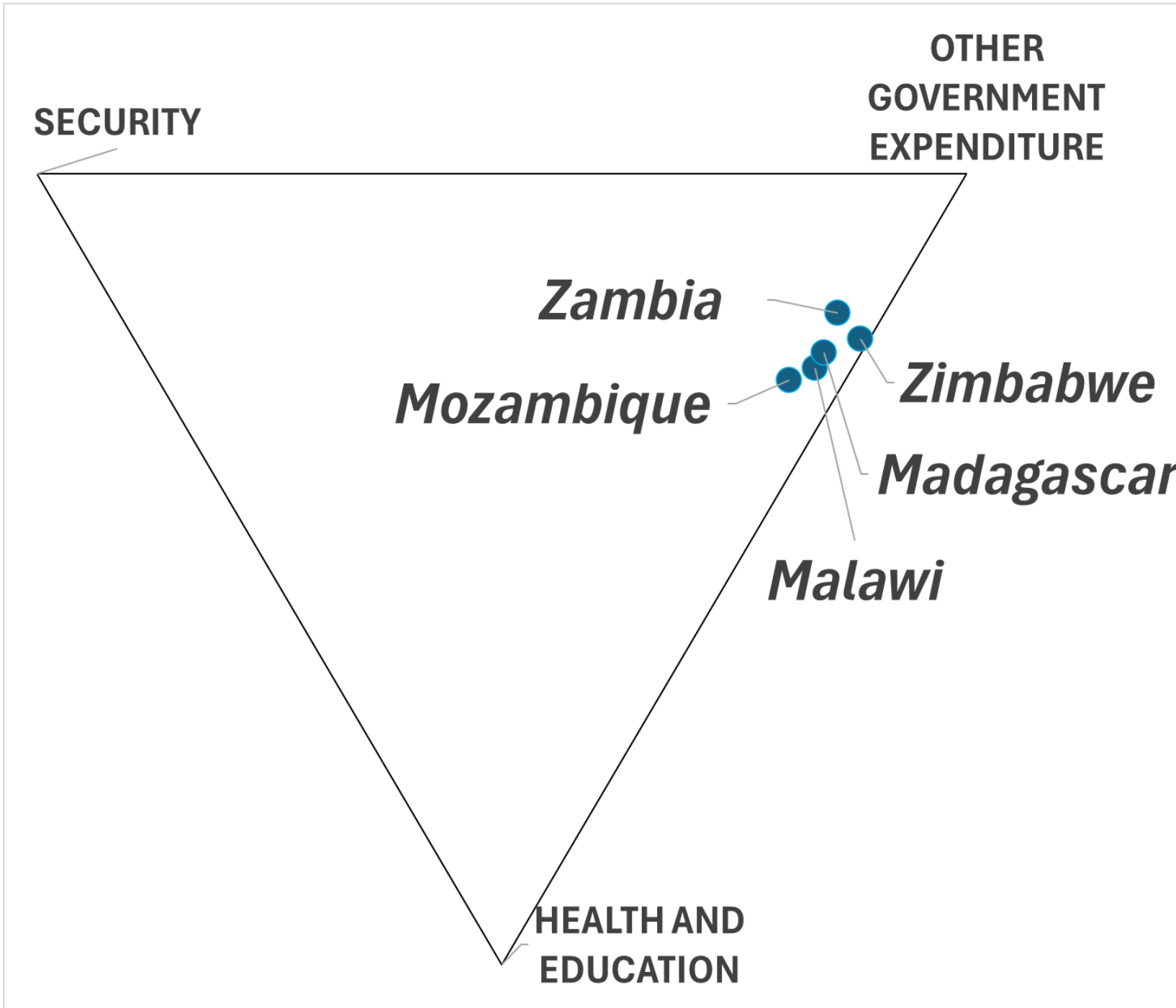
*Mozambique*

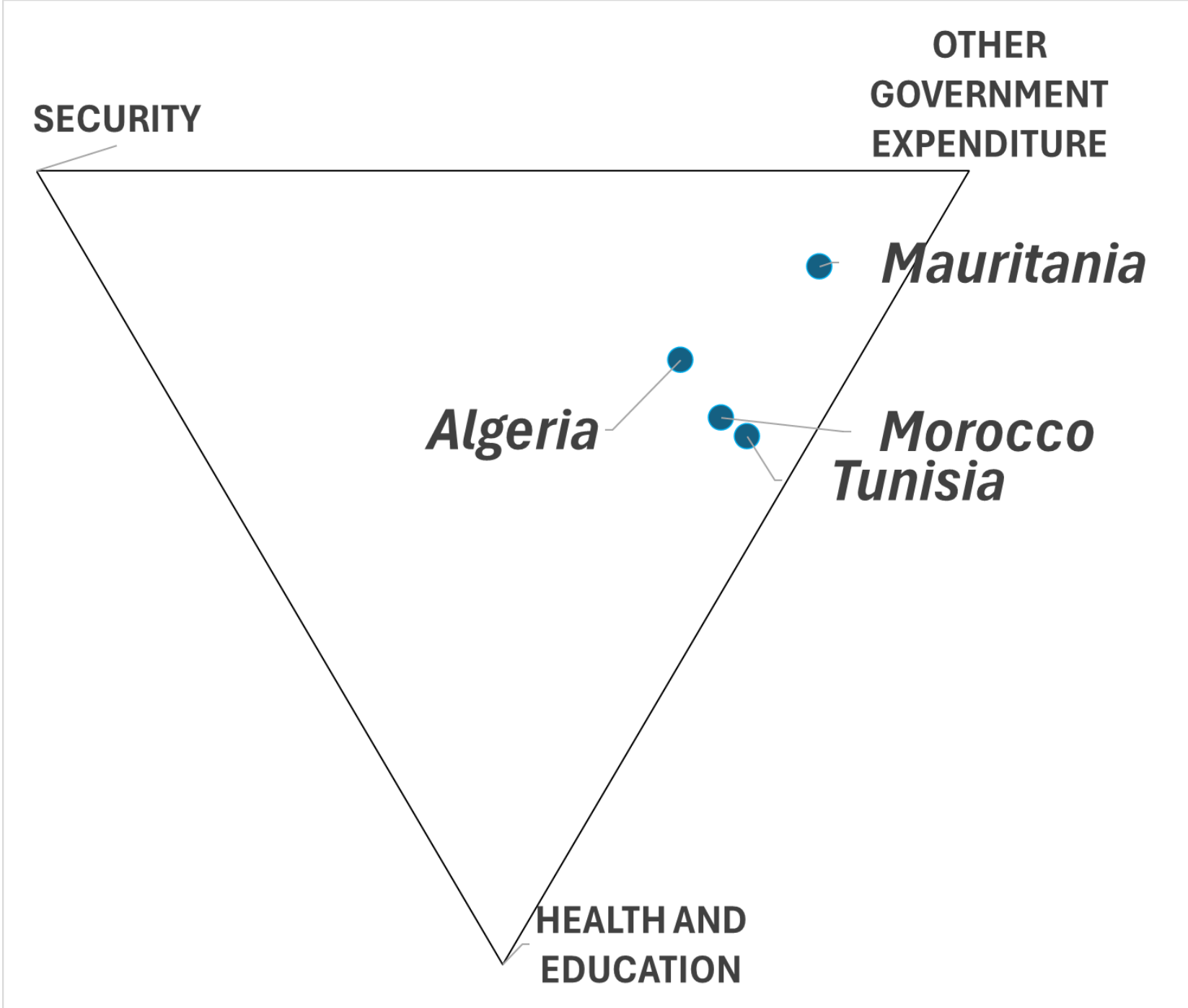
*Zimbabwe*

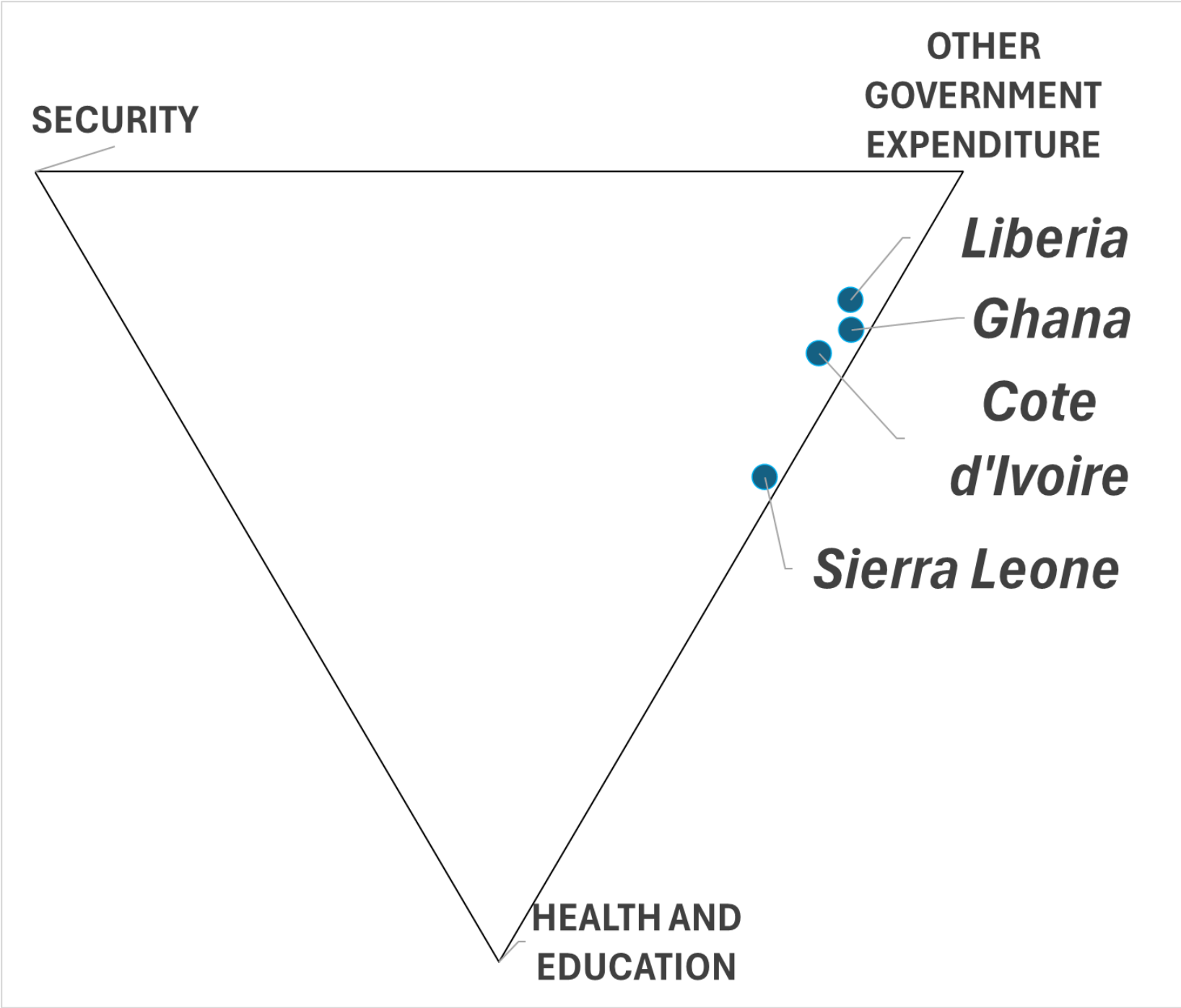
*Madagascar*

*Malawi*

**HEALTH AND  
EDUCATION**









**SECURITY**

**OTHER  
GOVERNMENT  
EXPENDITURE**

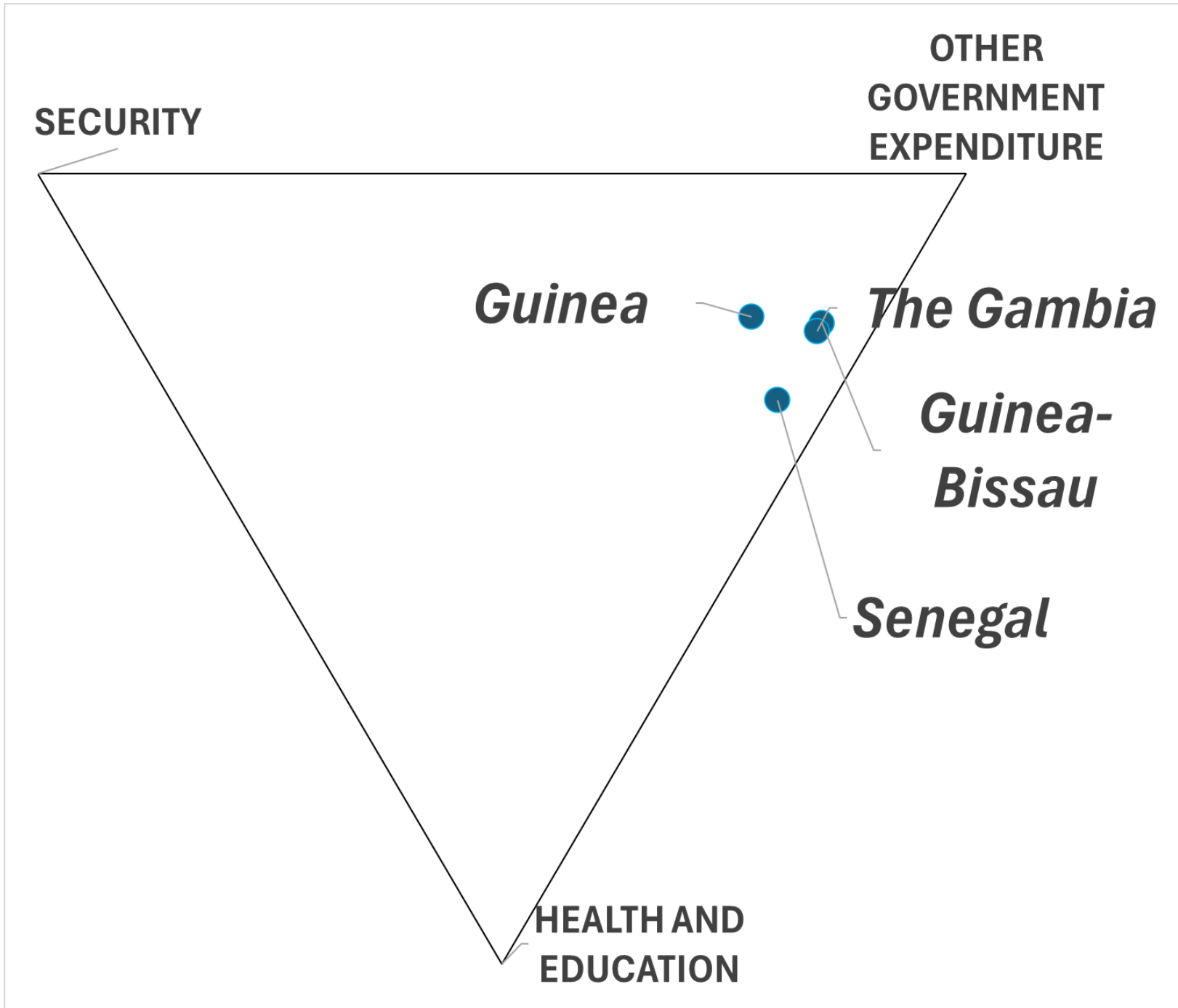
***Guinea***

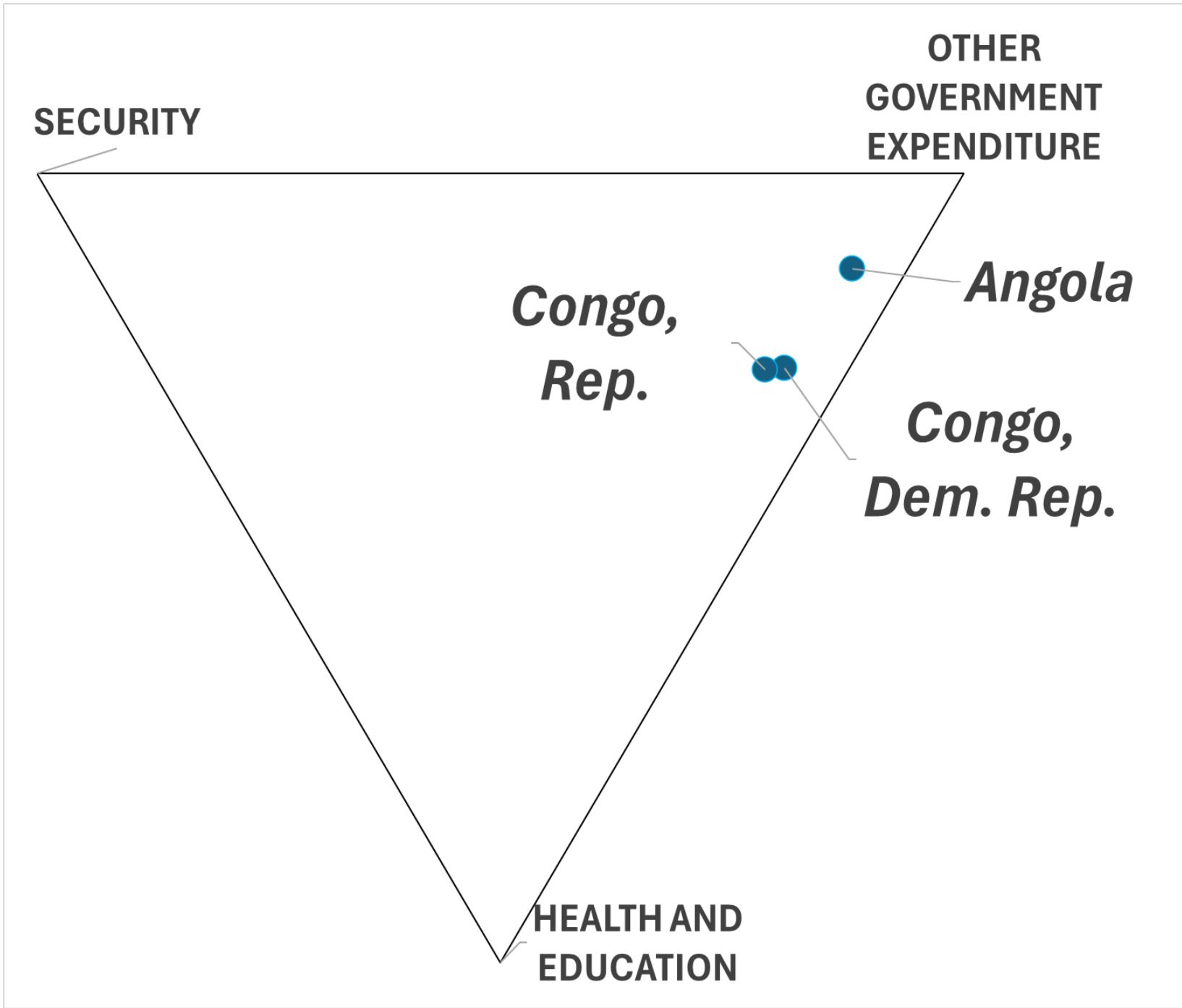
***The Gambia***

***Guinea-  
Bissau***

***Senegal***

**HEALTH AND  
EDUCATION**





**SECURITY**

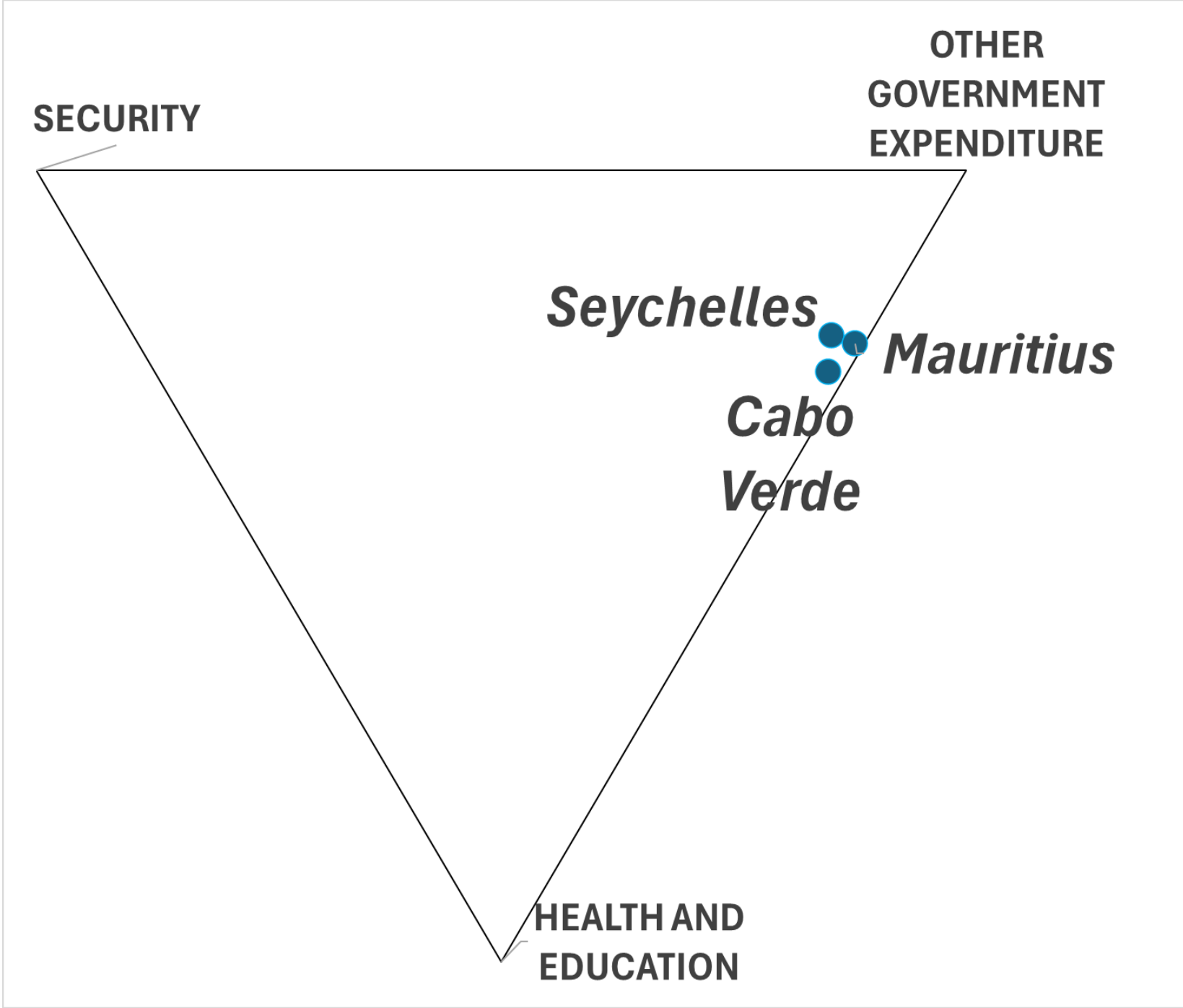
**OTHER  
GOVERNMENT  
EXPENDITURE**

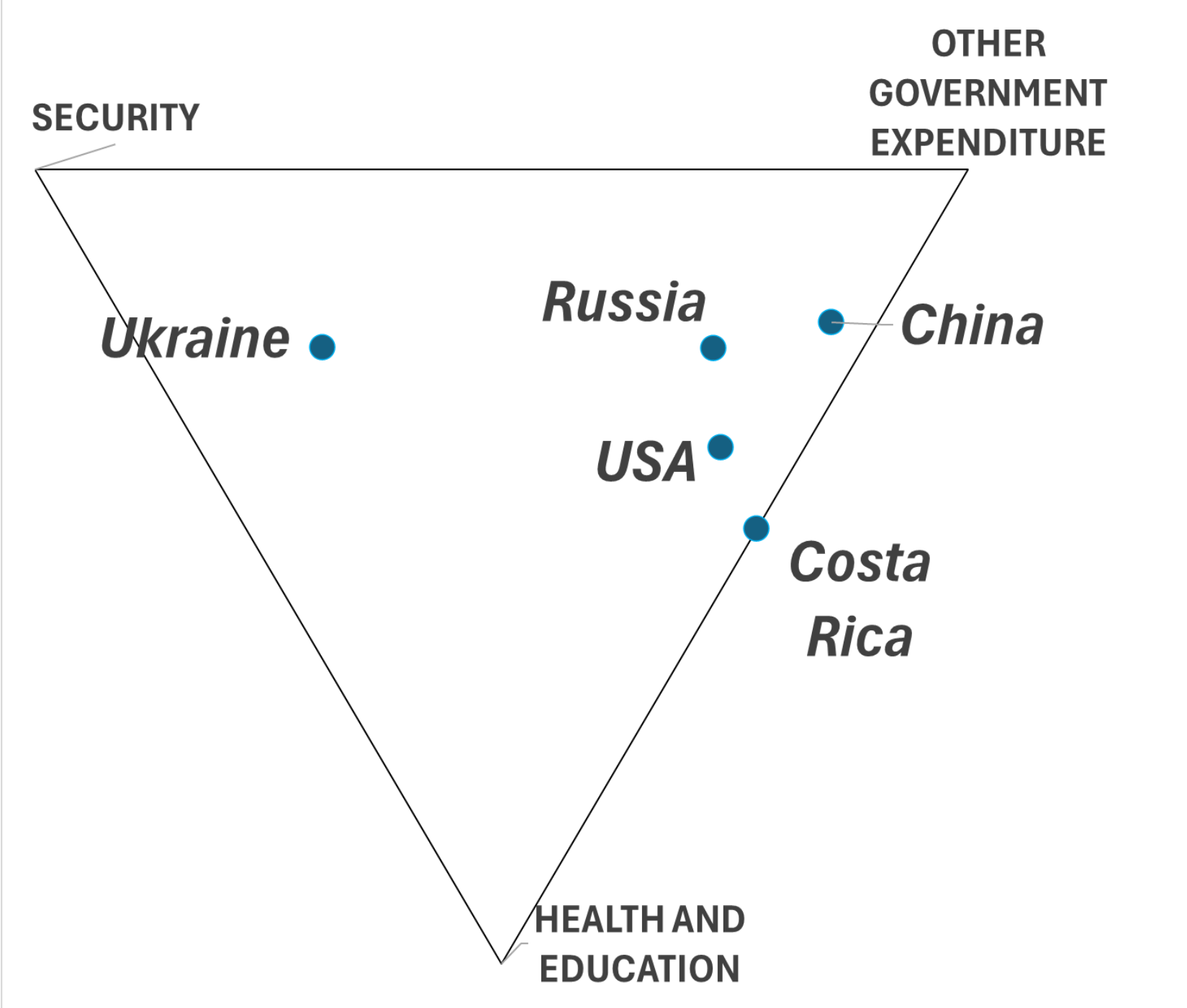
*Seychelles*

*Mauritius*

*Cabo  
Verde*

**HEALTH AND  
EDUCATION**







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