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Federal Ministry for the
Environment, Nature Conservation,
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State of the Art



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Bundesamt für Umwelt BAFU
Office fédéral de l'environnement OFEV
Ufficio federale dell'ambiente UFAM
Uffizi federal d'ambient UFAM



*Empowered lives.
Resilient nations.*

The Biodiversity Finance Initiative (BIOFIN)

International Technical Expert Workshop on Biodiversity Finance

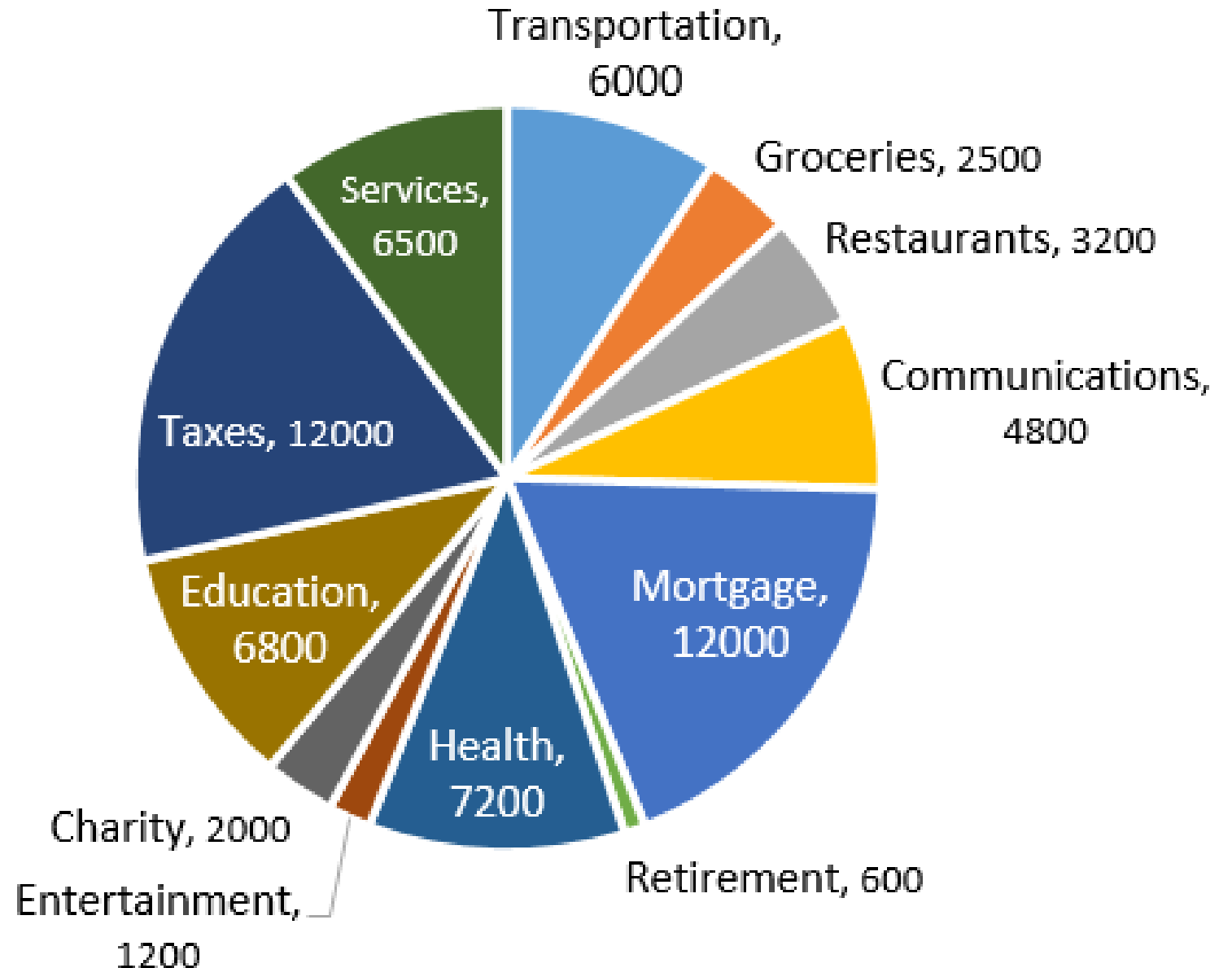
Mexico City, 5-7 May, 2015



We are all economic actors; we all spend money...

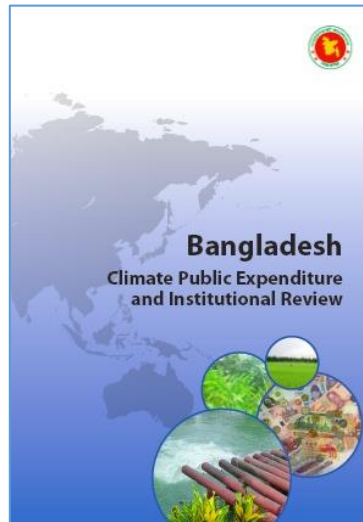


...and many of us review our expenditures annually

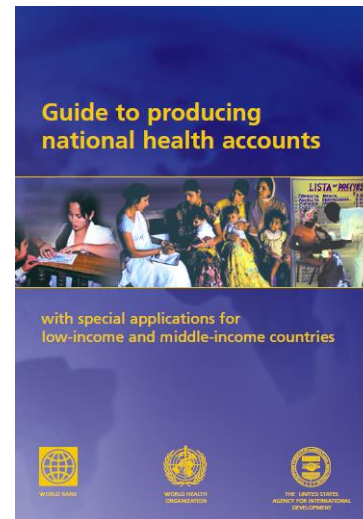


SIMPLE DEFINITION OF EXPENDITURE REVIEW:

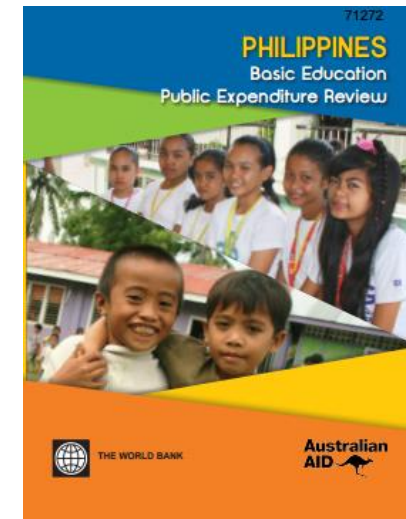
A review of how much finance actors spend within a given field, both annually and over time



Climate



Health

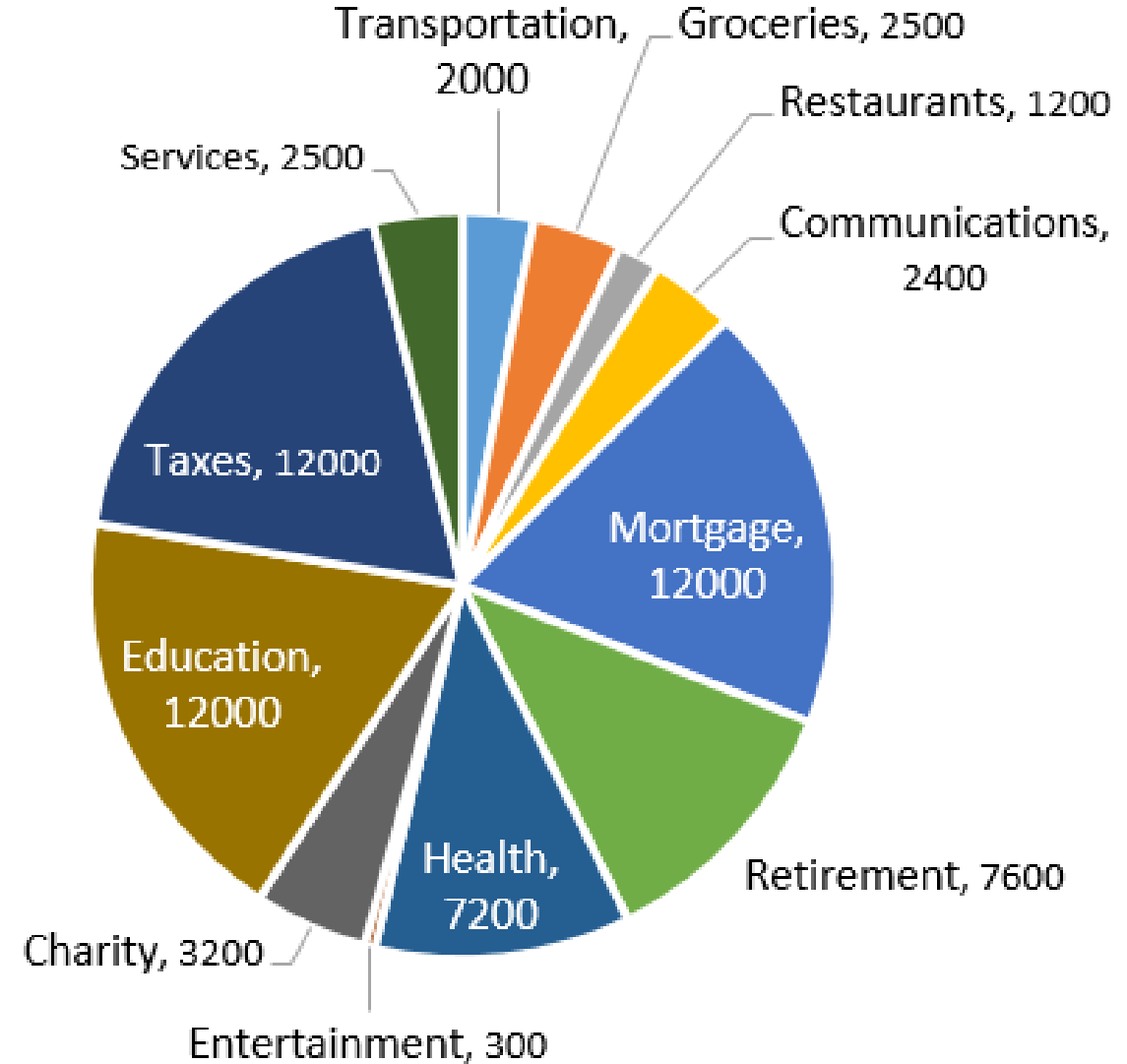
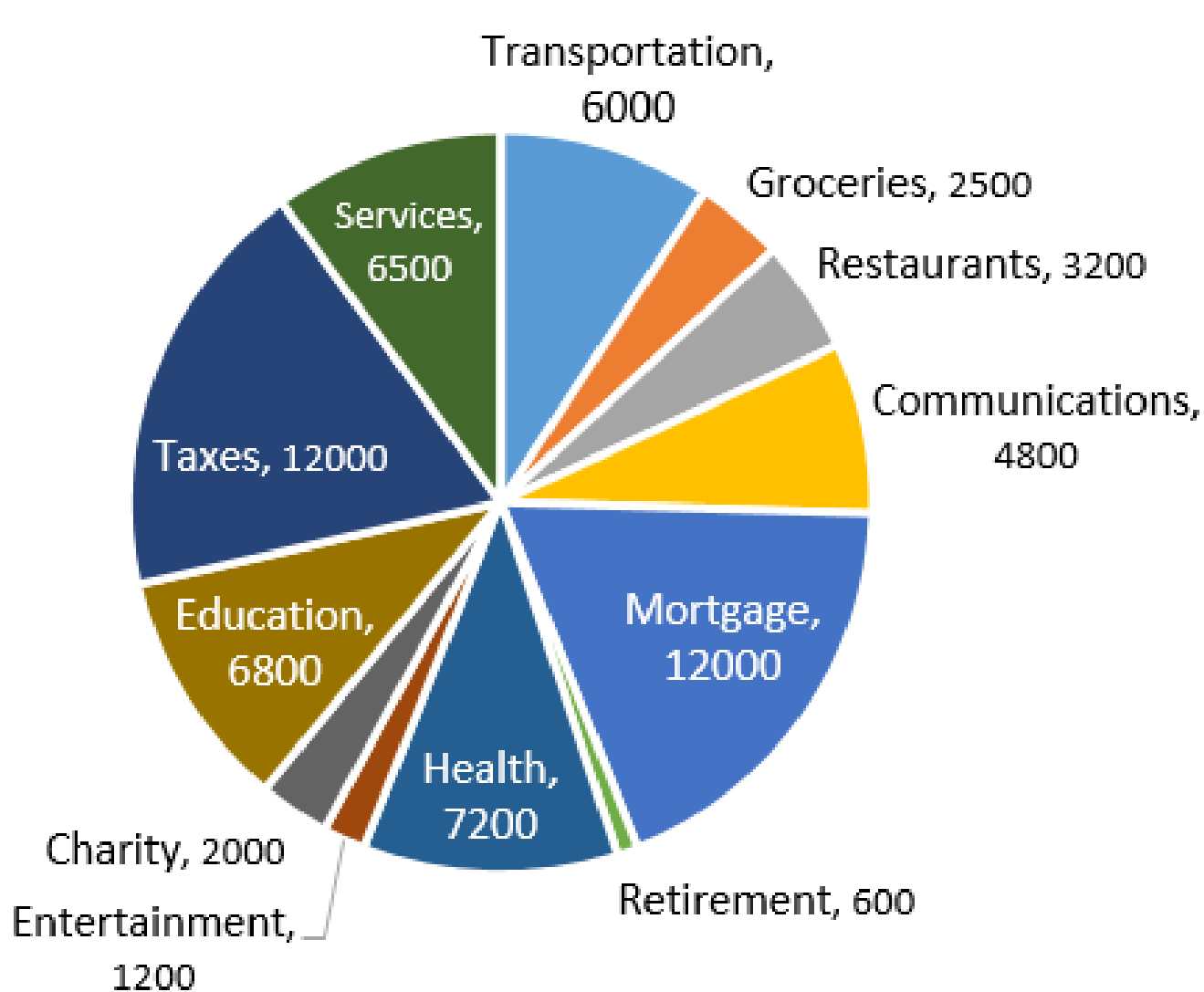


Education

But we are not just economic actors; we have hopes, dreams, priorities, aspirations, and long-term goals



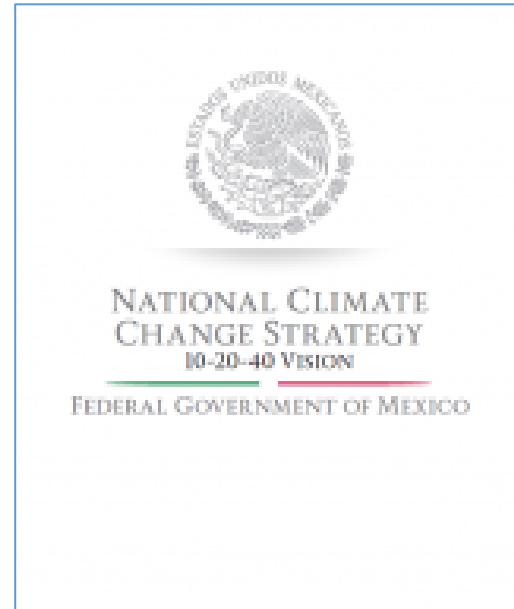
...and regular reviews helps us **align our spending** with our values and long-term goals, and **set budgets**



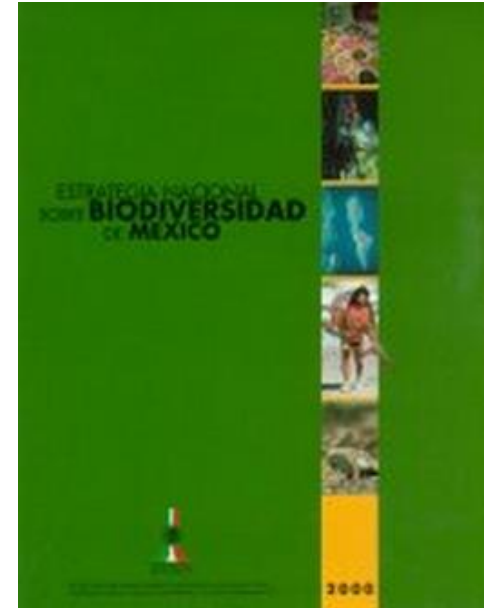
Governments also have hopes, aspirations, values, priorities and long-term goal that are embodied in national strategies and plans



Sustainable development

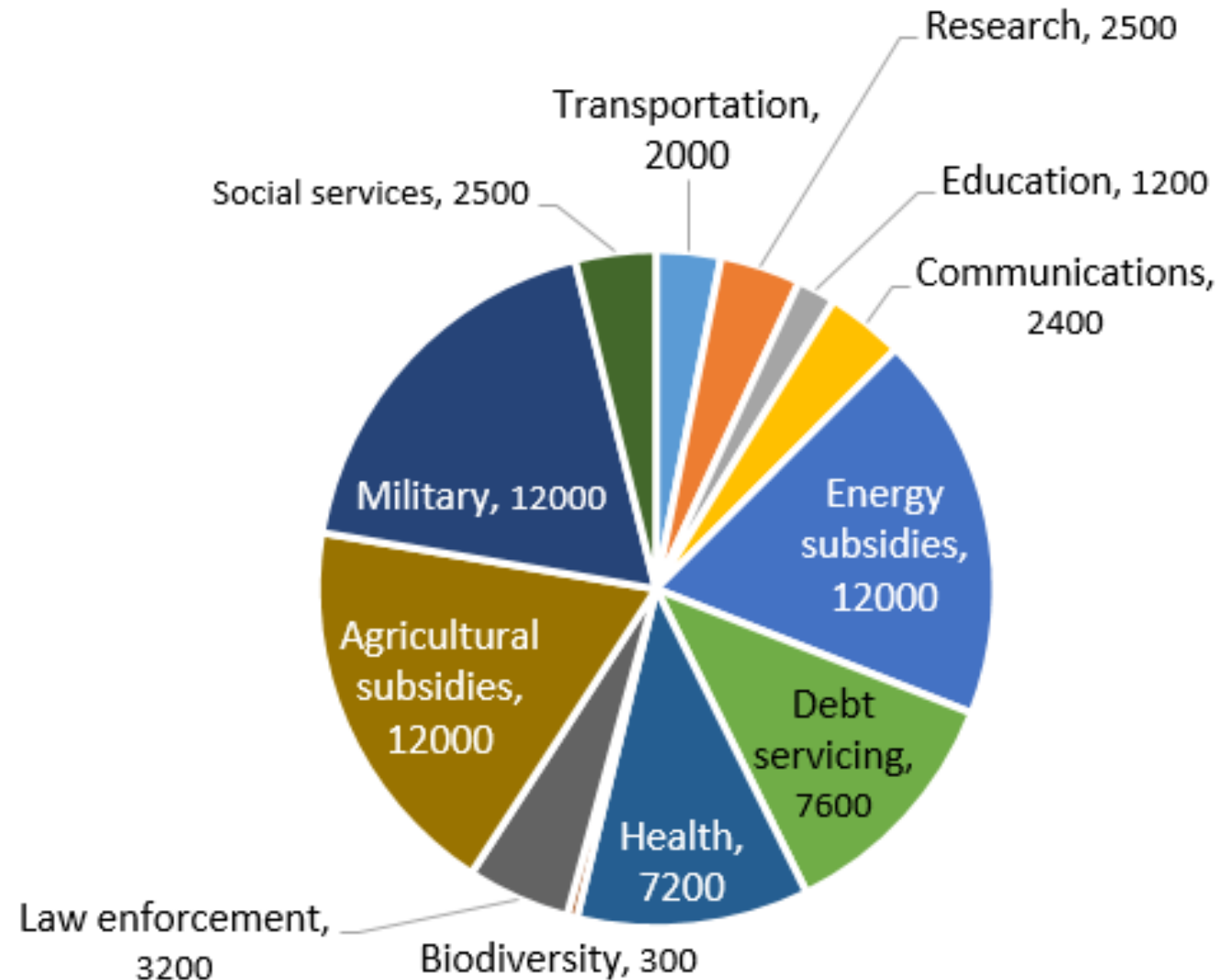


Climate



Biodiversity

...and regular expenditure reviews help governments **align spending** with long-term plans, and **set budgets**



A more nuanced definition of biodiversity expenditure review:

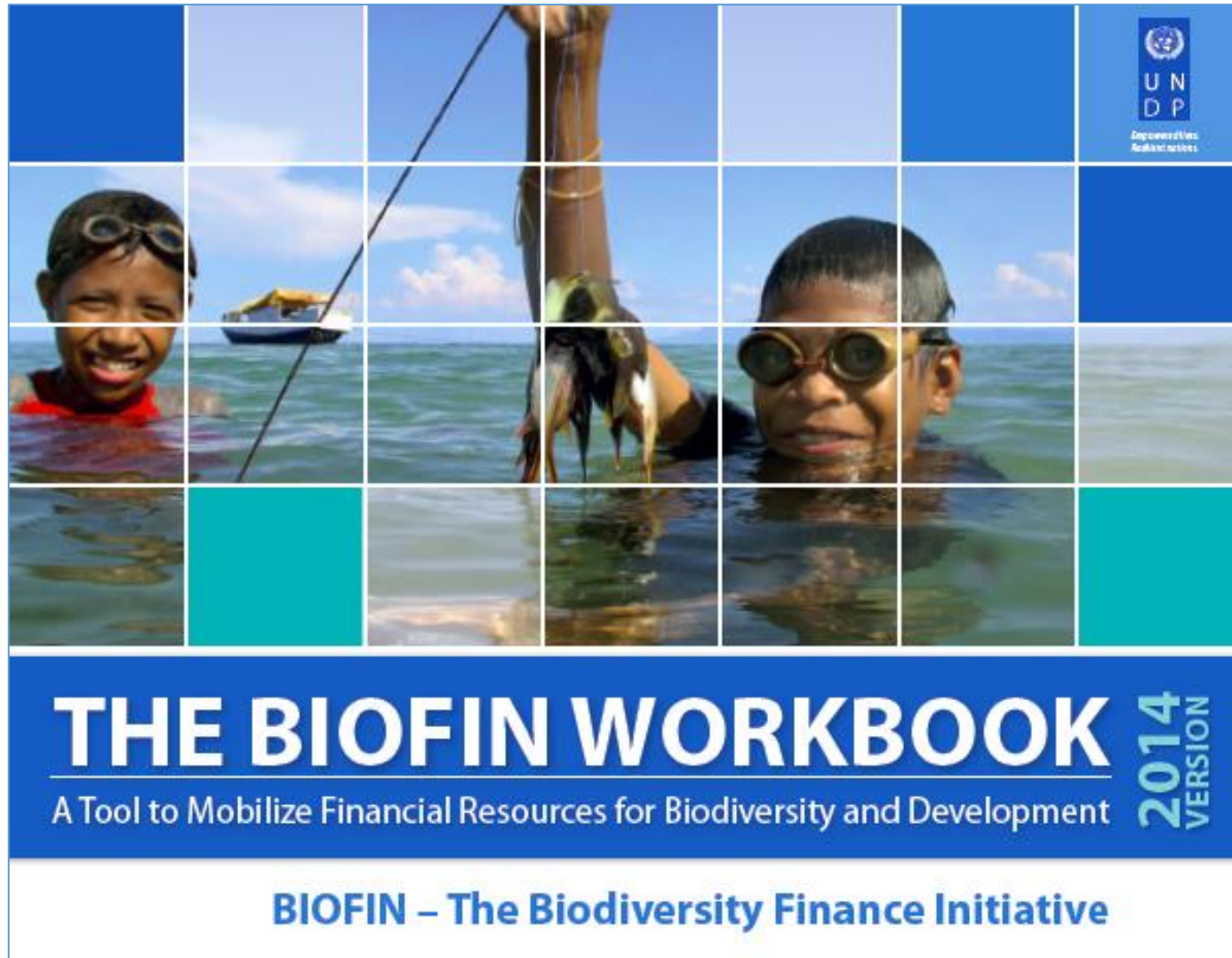
A systematic review and critical analysis of the amount of biodiversity-related expenditures, both positive and harmful, by key finance actors within a country in order to align expenditures with national goals, and to develop a baseline for past and future biodiversity finance.

A more nuanced definition of biodiversity expenditure review:

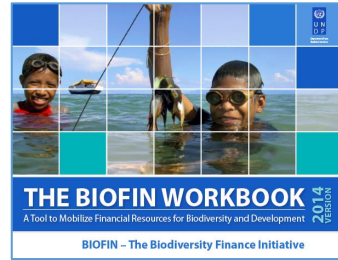
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THE BIOFIN WORKBOOK

(www.biodiversityfinance.net)



Steps in an expenditure review



STEP 1: Conduct a policy and institutional review

STEP 2: Identify key finance actors

STEP 3: Identify and tag biodiversity-related expenditures

STEP 4: Identify other related attributes of expenditures

STEP 5: Develop future expenditure baseline

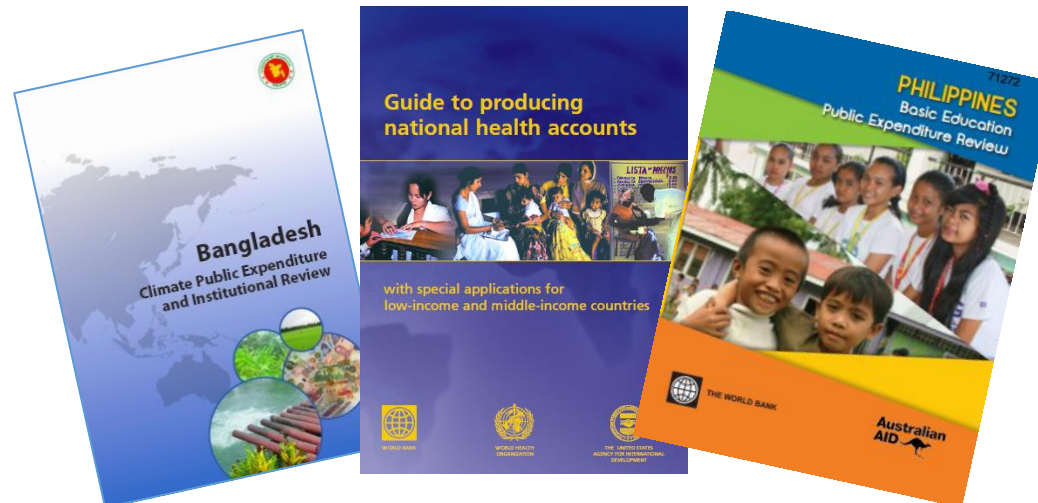
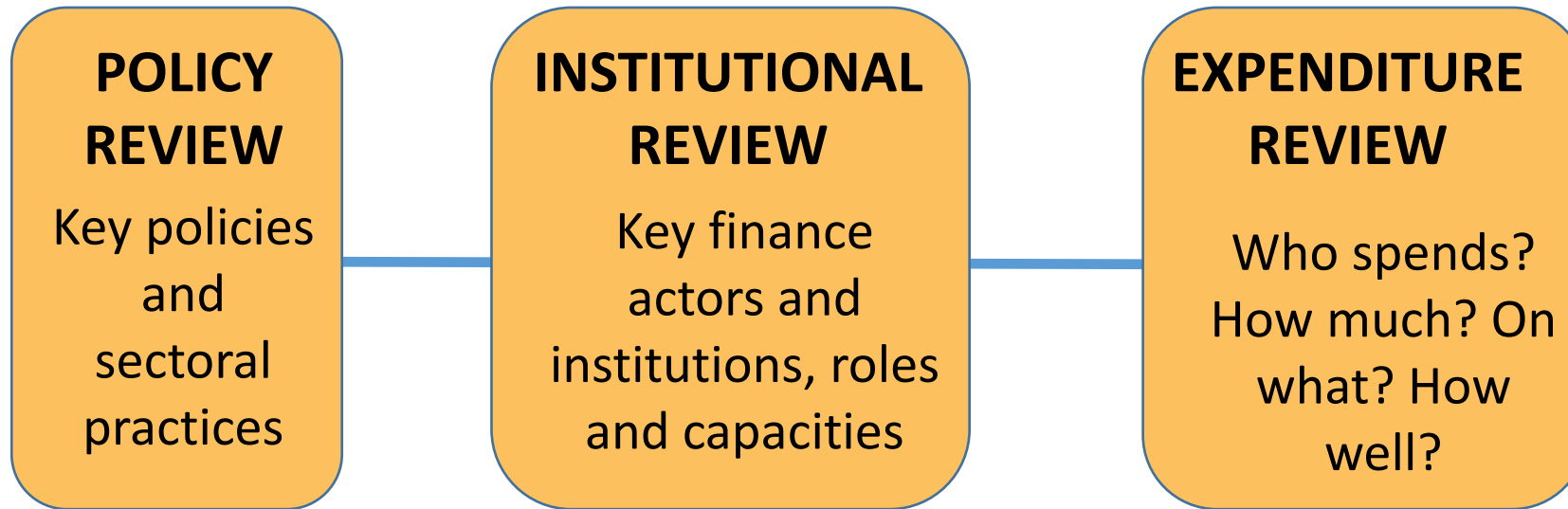
STEP 6: Aggregate all data into cohesive framework

STEP 7: Analyze and review results

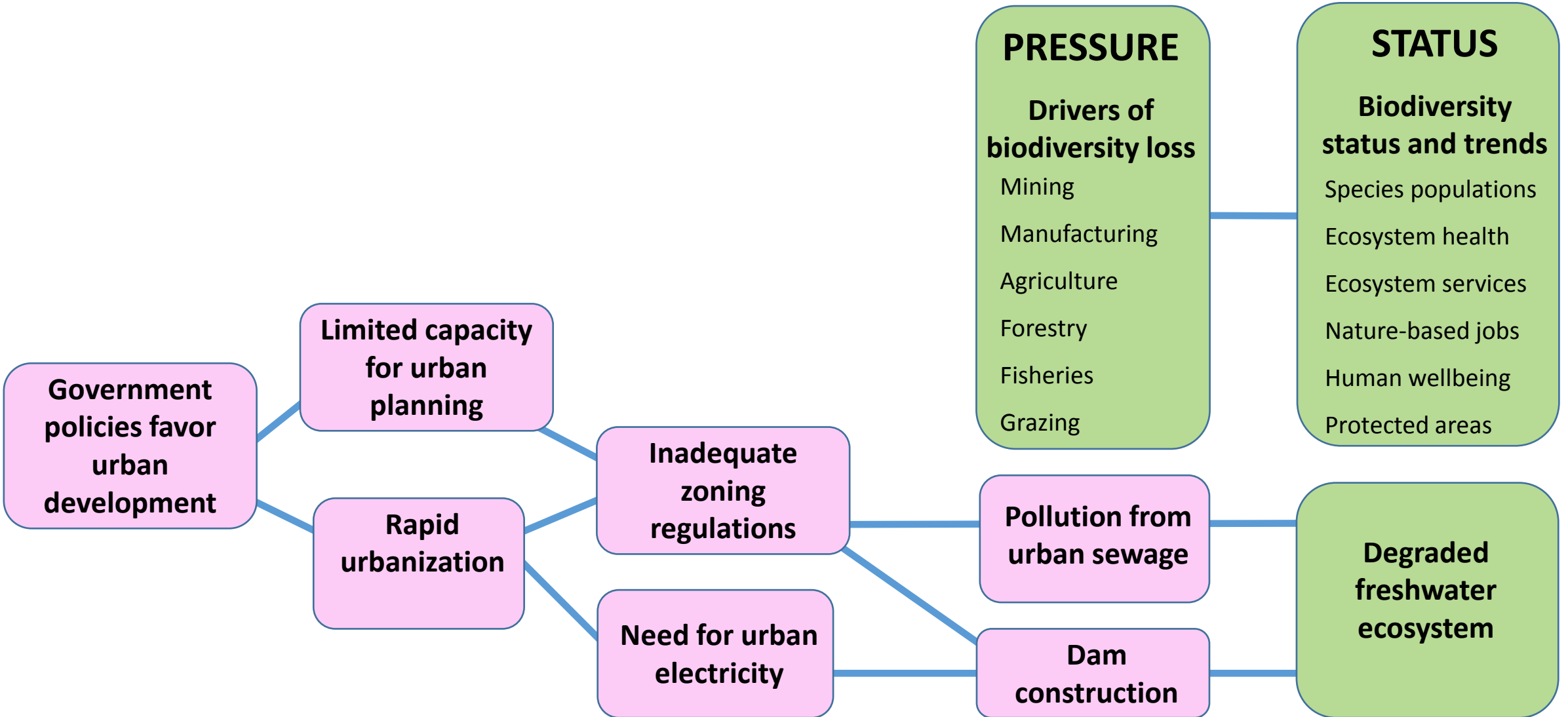
STEP 1: Conduct a policy and institutional review



Conceptual framework for public and private expenditure reviews



Key issue 1: We need to start with key trends and root causes as part of an expenditure review



Key issue 2: Coherent taxonomy



Understand values



Mainstream biodiversity



Address incentives



Sustainable production



Halve rate of loss



Sustainable fisheries



Manage within limits



Reduce pollution



Reduce invasive spp.



Minimize reef loss



Protected areas



Prevent extinctions



Conserve gene pool



Restore ecosystems



Enhance resilience



Implement Nagoya Prot.



Revise NBSAPs



Respect and conserve TK



Improve knowledge

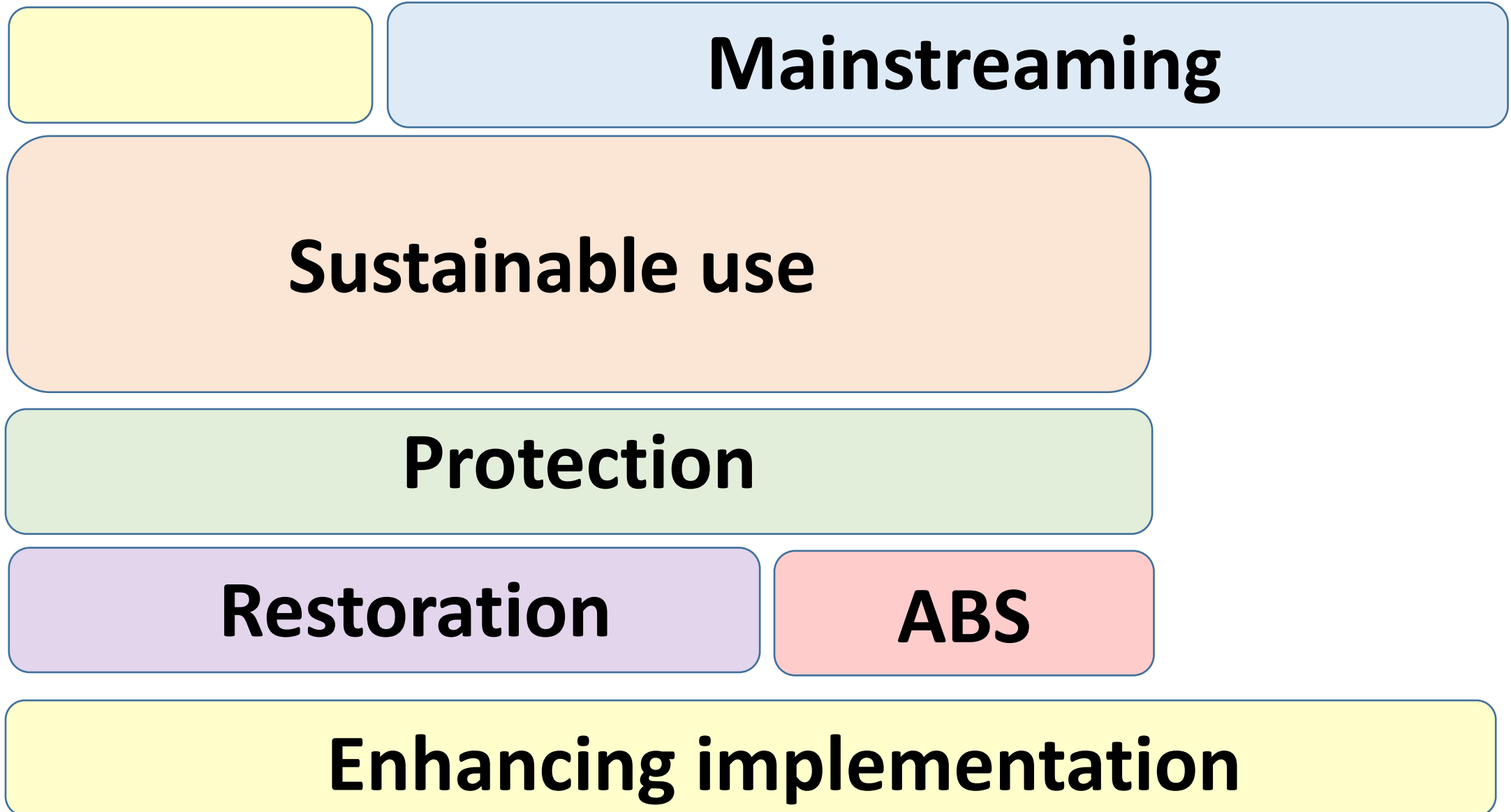


Mobilize resources

Key issue 2: Coherent taxonomy



Key issue 2: Coherent taxonomy



Key issue 2: Coherent taxonomy

Taxonomy for biodiversity actors and expenditures (Workbooks 1B, 1C and 2A)

	SECTORAL MAINSTREAMING	NATURAL RESOURCE USE	PROTECTION	RESTORATION	ACCESS AND BENEFITS SHARING	ENHANCING IMPLEMENTATION	OTHER
Biodiversity actors, expenditures and costs	Manufacturing mainstreaming actors, expenditures, and costs Energy mainstreaming actors, expenditures, and costs Mining mainstreaming actors, expenditures, and costs Transportation mainstreaming actors, expenditures, and costs Infrastructure mainstreaming actors, expenditures, and costs Waste mainstreaming expenditures, costs and actors Tourism mainstreaming actors, expenditures, and costs Other sectoral mainstreaming actors, expenditures, and costs	Forestry actors, expenditures, and costs Agriculture actors, expenditures, and costs Grazing actors, expenditures, and costs Water actors, expenditures, and costs Fisheries actors, expenditures, and costs Invasive species actors, expenditures, and costs Other natural resource use actors, expenditures, and costs	Government and co-managed protected areas actors, expenditures, and costs Community protected areas expenditures, costs actors, expenditures, and costs Private protected areas actors, expenditures, and costs Trans-boundary protected area actors, expenditures, and costs Other conserved areas actors, expenditures, and costs Corridor protection actors, expenditures, and costs Buffer protection actors, expenditures, and costs Ex-situ protection actors, expenditures, and costs Trade and enforcement efforts actors, expenditures, and costs Other types of land, water, species and habitat protection actors, expenditures, and costs	Government-lands restoration actors, expenditures, and costs Private restoration actors, expenditures, and costs Community restoration actors, expenditures, and costs Industrial restoration actors, expenditures, and costs Production lands restoration actors, expenditures, and costs Corridor restoration actors, expenditures, and costs Buffer restoration actors, expenditures, and costs Other restoration actors, expenditures, and costs	Prior informed consent actors, expenditures, and costs Mutually agreed terms actors, expenditures, and costs Benefit sharing actors, expenditures, and costs Traditional knowledge actors, expenditures, and costs Status of conservation actors, expenditures, and costs	Communication and outreach actors, expenditures, and costs Research actors, expenditures, and costs Monitoring actors, expenditures, and costs Legal actors, expenditures, and costs Finance actors, expenditures and costs Policy actors, expenditures, and costs Other expenditures and costs related to implementation	All other expenditures and costs

Key issue 2: Coherent taxonomy

SECTION 1: NEGATIVE DRIVERS OF BIODIVERSITY AND ECOSYSTEMS			
Describe key <i>negative</i> trends in biodiversity and ecosystems	Succinctly describe the driver in 15 or fewer words	Select the category of driver that is causing the negative trend	Select the specific sector or driver causing the negative trend
Decline in key fish populations	Unsustainable fishing practices	Use	Fisheries
Increase in invasive alien species	Increased habitat fragmentation from road development	Mainstreaming	Transportation
Increase in forest fragmentation	Unsustainable logging practices and illegal logging	Use	Forestry
Loss of sensitive habitat within protected areas	Mining occurs in protected areas	Mainstreaming Use Protection Restoration ABS Implementation Other	Mining
Decline of key species (elephants) within protected areas	Poaching		Government

Step 2: Identify relevant finance actors



Tourism



Forestry



Agriculture



Fisheries

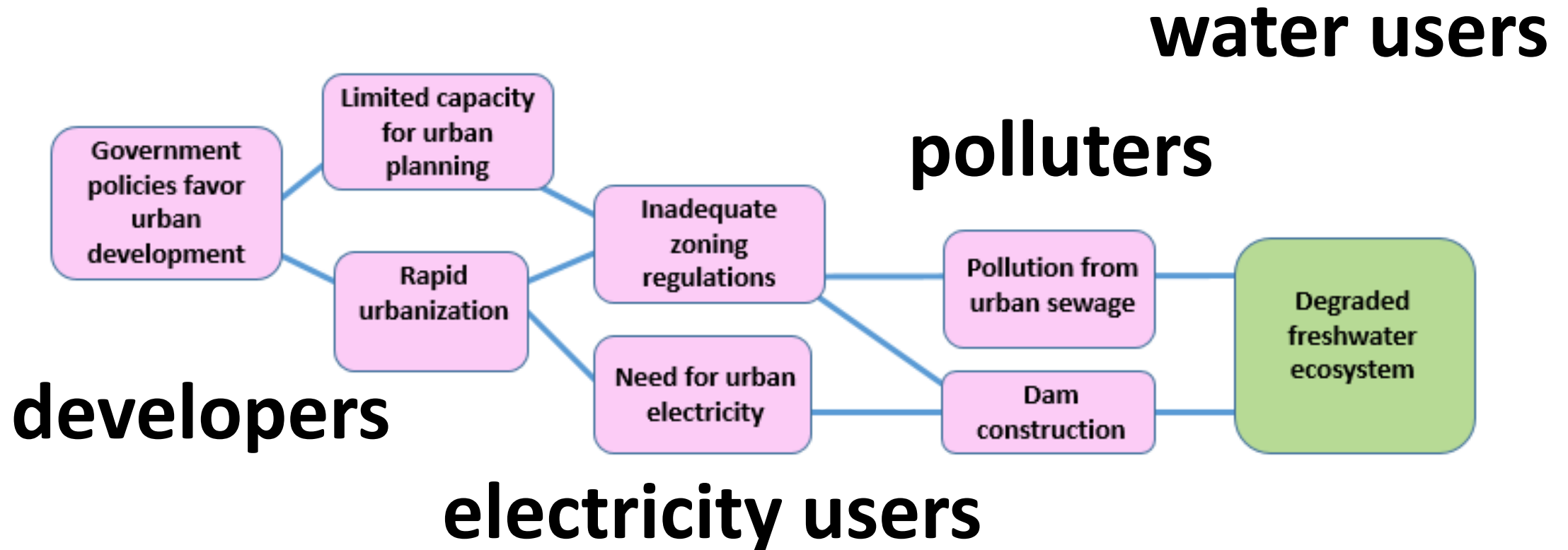


Protected areas



Water

Key issue 3: We need to look at *existing* and *potential* finance actors

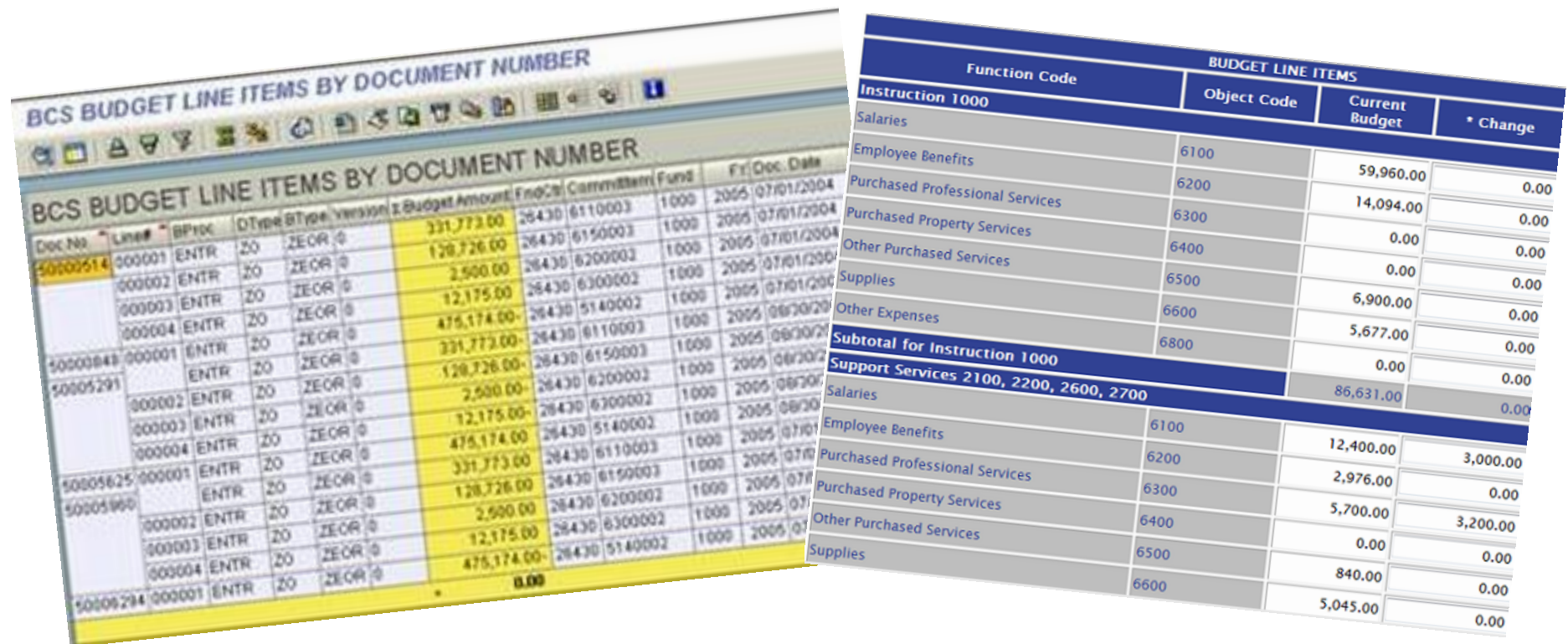


Key issue 4: We need to look at both *public* and *private* finance actors (where possible)

- Because private finance for **positive** biodiversity actions (e.g., mainstreaming; private reserves) are high
- Because private finance for **harmful** biodiversity actions (e.g., mining) are high

STEP 3: Identify and tag biodiversity-relevant expenditure reviews

Extract budgetary data from relevant finance actors, including ministries, agencies, private entities



The image shows a screenshot of a software interface titled "BCS BUDGET LINE ITEMS BY DOCUMENT NUMBER". The interface displays a table of budget line items with columns for Doc No, Line#, BProc, DType, BType, Version, Budget Amount, FncCd, CommBttn, Fund, and Fr Dec. Date. The table is filtered to show items for document number 50000514. A summary table is overlaid on the right side of the screenshot, showing the breakdown of budget line items by function code and object code.

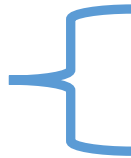
Function Code		BUDGET LINE ITEMS	
Instruction 1000	Object Code	Current Budget	* Change
Salaries	6100	59,960.00	0.00
Employee Benefits	6200	14,094.00	0.00
Purchased Professional Services	6300	0.00	0.00
Purchased Property Services	6400	0.00	0.00
Other Purchased Services	6500	0.00	0.00
Supplies	6600	6,900.00	0.00
Other Expenses	6800	5,677.00	0.00
Subtotal for Instruction 1000		0.00	0.00
Support Services 2100, 2200, 2600, 2700		86,631.00	0.00

Function Code		BUDGET LINE ITEMS	
Instruction 1000	Object Code	Current Budget	* Change
Salaries	6100	12,400.00	3,000.00
Employee Benefits	6200	2,976.00	0.00
Purchased Professional Services	6300	5,700.00	3,200.00
Purchased Property Services	6400	0.00	0.00
Other Purchased Services	6500	840.00	0.00
Supplies	6600	5,045.00	0.00

Key issue 5: The granularity of data may be variable depending on the finance actor

Major programs

Activity clusters

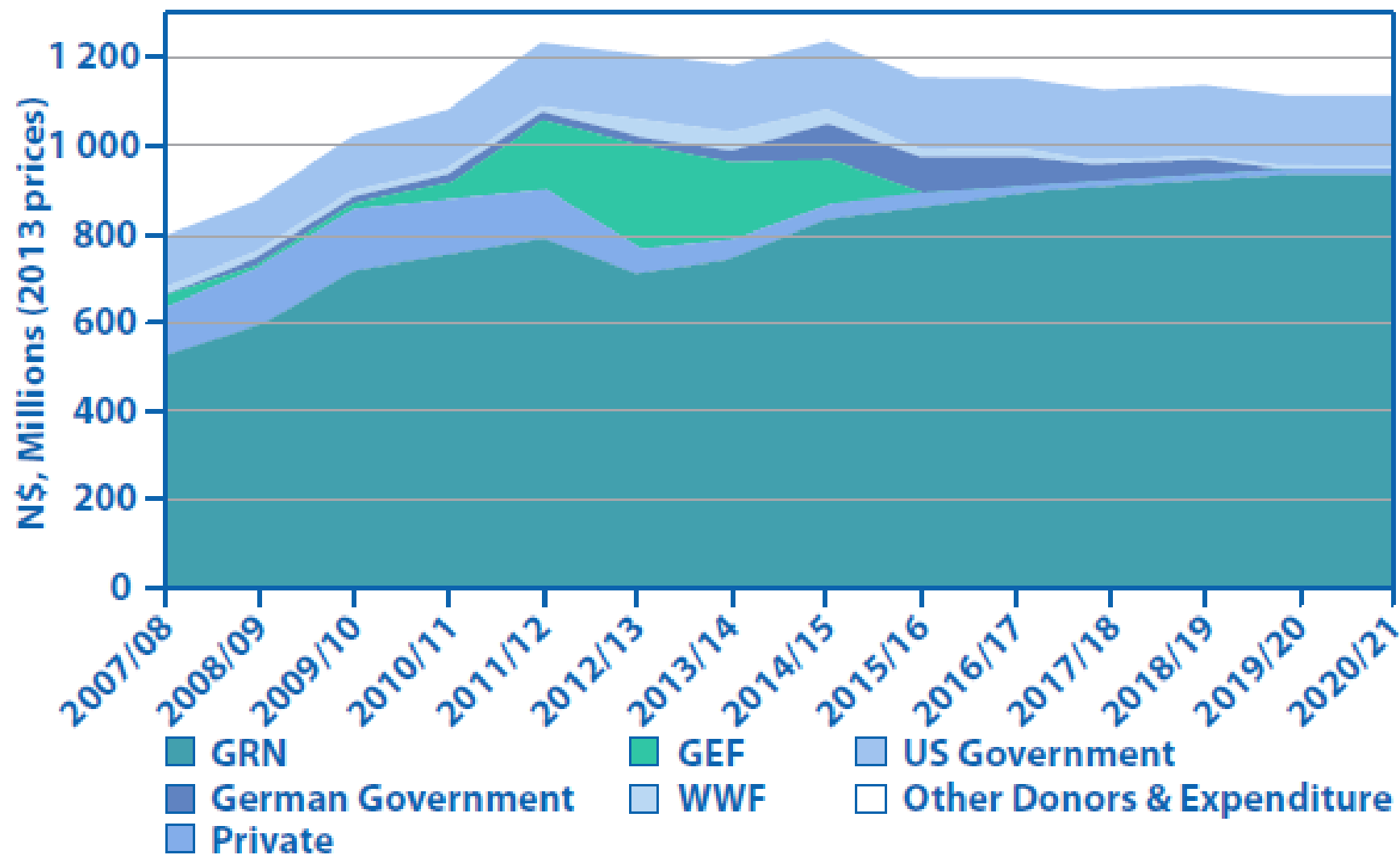


Line items



BCS BUDGET LINE ITEMS BY DOCUMENT NUMBER										
Doc No	Line#	BProc	DType	BType	Version	Budget Amount	FnDCh	CommItem	Fund	Fr Doc Date
50000514	000001	ENTR	Z0	ZEOR	0	331,773.00	26430	6110003	1000	2005 07/01/2004
	000002	ENTR	Z0	ZEOR	0	128,726.00	26430	6150003	1000	2005 07/01/2004
	000003	ENTR	Z0	ZEOR	0	2,500.00	26430	6200002	1000	2005 07/01/2004
	000004	ENTR	Z0	ZEOR	0	12,175.00	26430	6300002	1000	2005 07/01/2004
50000843	000001	ENTR	Z0	ZEOR	0	475,174.00	26430	5140002	1000	2005 07/01/2004
50005291		ENTR	Z0	ZEOR	0	331,773.00	26430	6110003	1000	2005 08/30/2004
	000002	ENTR	Z0	ZEOR	0	128,726.00	26430	6150003	1000	2005 08/30/2004
	000003	ENTR	Z0	ZEOR	0	2,500.00	26430	6200002	1000	2005 08/30/2004
	000004	ENTR	Z0	ZEOR	0	12,175.00	26430	6300002	1000	2005 08/30/2004
50005625	000001	ENTR	Z0	ZEOR	0	475,174.00	26430	5140002	1000	2005 08/30/2004
50005960		ENTR	Z0	ZEOR	0	331,773.00	26430	6110003	1000	2005 07/01/2004
	000002	ENTR	Z0	ZEOR	0	128,726.00	26430	6150003	1000	2005 07/01/2004
	000003	ENTR	Z0	ZEOR	0	2,500.00	26430	6200002	1000	2005 07/01/2004
	000004	ENTR	Z0	ZEOR	0	12,175.00	26430	6300002	1000	2005 07/01/2004
50006294	000001	ENTR	Z0	ZEOR	0	475,174.00	26430	5140002	1000	2005 07/01/2004
						0.00				

Key issue 6: Duration of data period



Key issue 7: Assigning percentage of expenditure attributable to biodiversity

BIOFIN Options:

100%

75%

50%

25%

10%

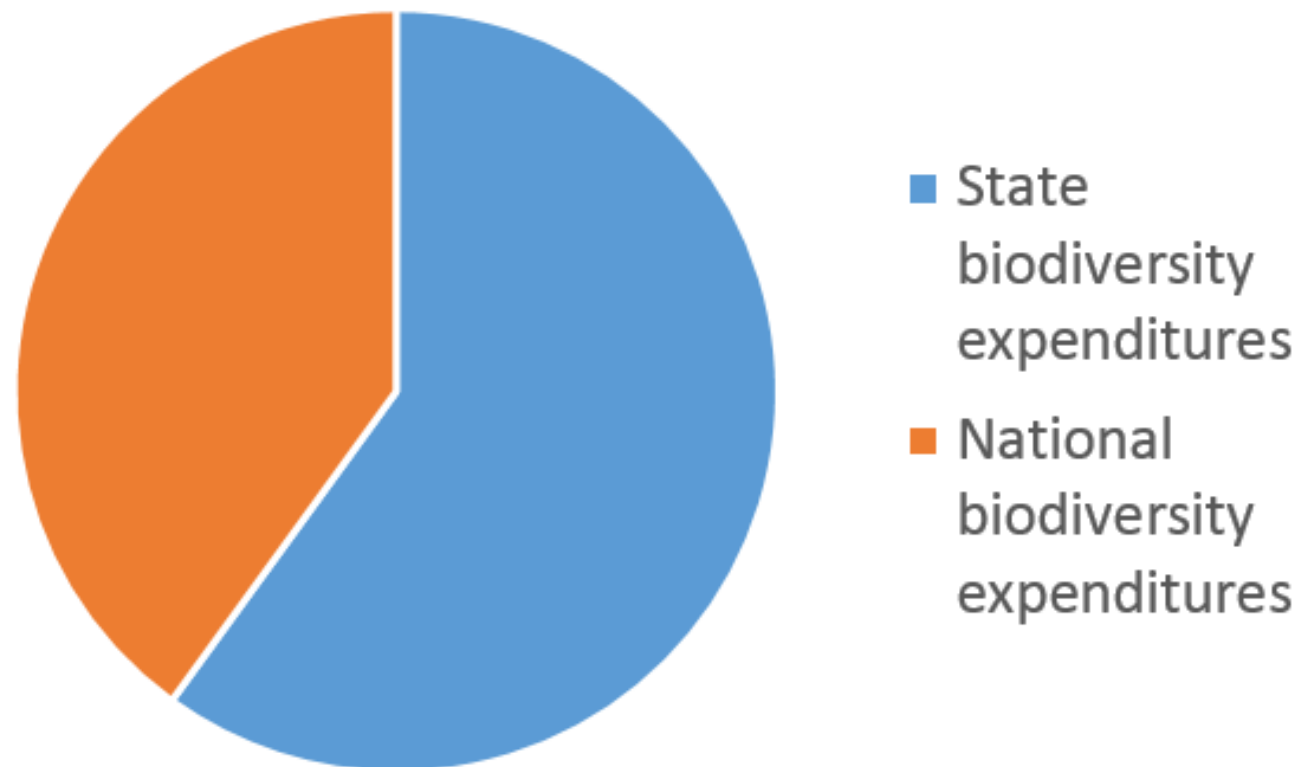
5%

Or variable



Example: Protected area management has high relevancy to biodiversity; water quality control efforts might have only low relevancy

Key issue 8: National vs. sub-national – in some cases sub-national is more important



STEP 4: Identify other related attributes of expenditures



Effectiveness



Harmfulness

Key issue 9: Gauging effectiveness

BIOFIN Options:

Highly (100%)

Mostly (75%)

Moderately (50%)

Marginally (25%)

Not effective (0%)

Unknown

Or variable

Definition of effectiveness: The degree to which the expenditure achieved the specific intended results in a cost-effective and efficient manner

Use of effectiveness: Mostly as a flag, or marker, for further review and analysis

Key issue 10: Gauging harmfulness

BIOFIN Options:

Extremely (100%)

Very (75%)

Moderately (50%)

Somewhat (10%)

Not at all (0%)

Unknown

Or variable

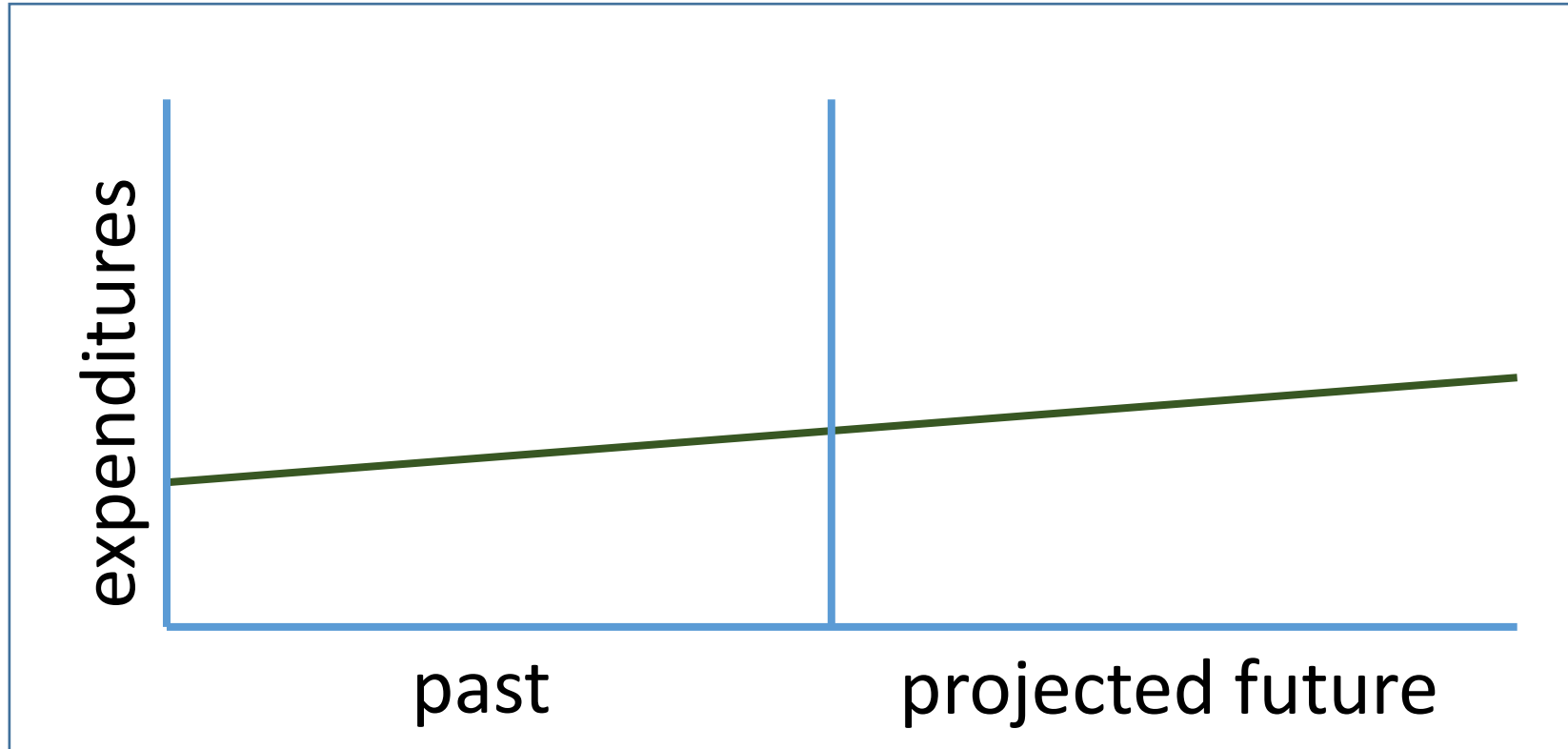
Definition of biodiversity-harmful expenditure: Expenditures that are in opposition to national biodiversity objectives

Use of harmfulness: Mostly as a flag, or marker, for further review and analysis

BIOFIN Excel Workbook for Expenditure Review

		2006	2007	2008	2009	2010	2011	2012	2013
Expenditure 1	Amount of actual expenditure	25000	27000	32000	33000	34000	39000	41000	22000
	General description (few words)	Protected area boundary demarcation							
	NBSAP strategy category	Protection							
	Sub-strategy category	Government							
	Specific element	Staff costs	Staff costs	Staff costs	Staff costs	Staff costs	Staff costs	Staff costs	Staff costs
	National Budget Code	PA-A1	PA-A1	PA-A1	PA-A1	PA-A1	PA-A1	PA-A1	PA-A1
	Agency or other code	NPA a.12	NPA a.12	NPA a.12	NPA a.12	NPA a.12	NPA a.12	NPA a.12	NPA a.12
	% attributable to biodiversity	100	100	100	100	100	100	100	100
	Effectiveness of expenditure	Highly	 Highly	Highly	Highly	Highly	Highly	Highly	Highly
	Harm to biodiversity	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all
Additional notes, assumptions	Assume effective because all PAs were properly demarcated								

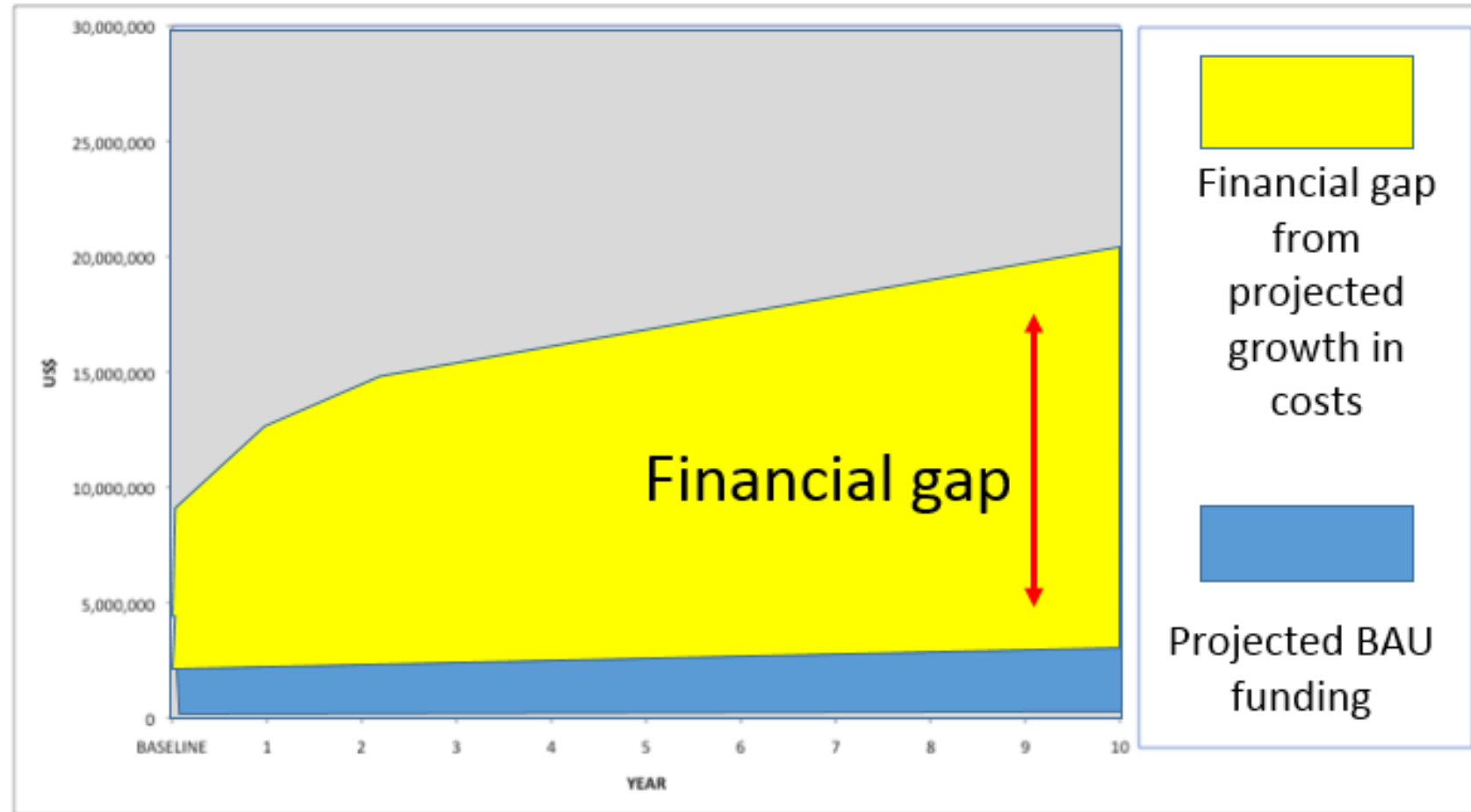
STEP 5: Develop future expenditure baseline



Key issue 11: Identifying a 'status quo' or 'business as usual' scenario

BIOFIN Options:

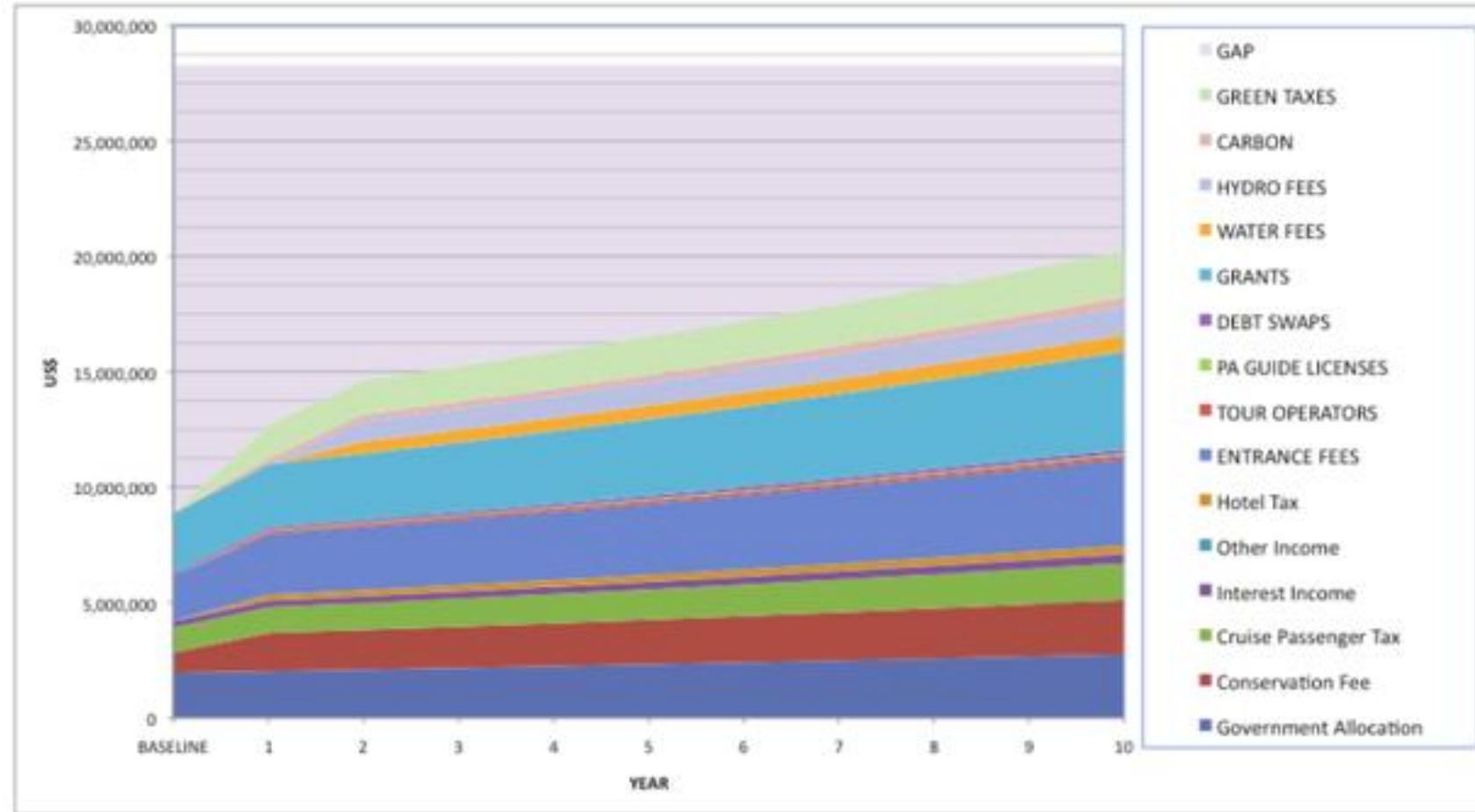
- Predict **trends** (same, increase, decrease, new) and select **rate** (2%, 5% 10%, 50%, 100%, or variable)
- Use past trends and rates to hindcast the future



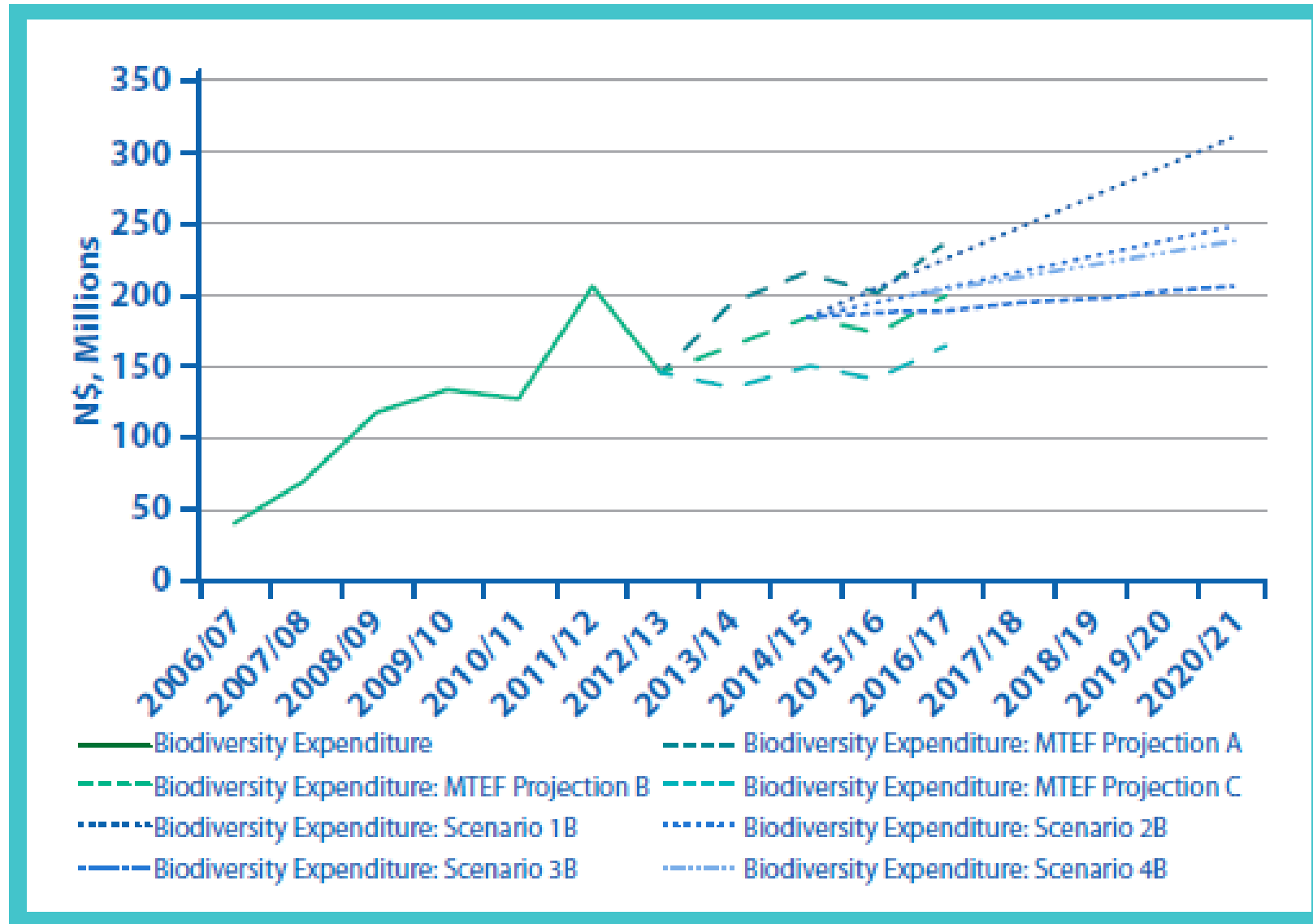
Key issue 11: Identifying a 'status quo' or 'business as usual' scenario

BIOFIN Options:

- Predict **trends** (same, increase, decrease, new) and select **rate** (2%, 5% 10%, 50%, 100%, or variable)
- Use past trends and rates to hindcast the future



Key issue 12: Identifying multiple scenarios



STEP 6: Aggregate all data into a cohesive framework

TOTALS		Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99
Utilities													
\$ 989.60	SCE	\$ 78.74	\$ 56.70	\$ 59.22	\$ 50.35	\$ 49.46	\$ 38.49	\$ 63.55	\$ 160.72	\$ 159.41	\$ 133.48	\$ 90.71	\$ 48.77
\$ 658.18	Gas Co.	\$ 129.04	\$ 118.36	\$ 95.68	\$ 103.88	\$ 29.13	\$ 16.43	\$ 10.39	\$ 10.02	\$ 11.97	\$ 11.91	\$ 16.86	\$ 104.51
\$ 1,003.99	Phone	\$ 127.67	\$ 108.93	\$ 80.52	\$ 82.64	\$ 58.00	\$ 81.49	\$ 75.63	\$ 82.46	\$ 71.26	\$ 92.58	\$ 75.51	\$ 67.30
\$ 796.08	Sewer/Trash/Water	\$ 62.24	\$ 62.24	\$ 56.84	\$ 65.48	\$ 60.08	\$ 62.24	\$ 60.08	\$ 61.00	\$ 79.36	\$ 86.92	\$ 80.60	\$ 59.00
\$ 366.86	Cable	\$ 28.98	\$ 28.98	\$ 28.98	\$ 28.98	\$ 28.98	\$ 31.66	\$ 31.65	\$ 31.73	\$ 31.73	\$ 31.73	\$ 31.73	\$ 31.73
\$ 3,814.71	TOTAL	\$ 426.67	\$ 375.21	\$ 321.24	\$ 331.33	\$ 225.65	\$ 230.31	\$ 241.30	\$ 345.93	\$ 353.73	\$ 356.62	\$ 295.41	\$ 311.31
Auto													
\$ 109.00	AAA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 109.00	\$ -	\$ -
\$ 1,032.00	Car Insurance	\$ -	\$ -	\$ -	\$ -	\$ 516.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 516.00	\$ -
\$ 79.00	DMV - Truck	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 79.00	\$ -
\$ 215.00	DMV - Honda	\$ -	\$ -	\$ 215.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 919.51	Unocal	\$ 61.73	\$ 60.70	\$ 73.37	\$ 73.08	\$ 116.21	\$ 89.37	\$ 116.13	\$ 79.42	\$ 52.06	\$ 65.25	\$ 66.58	\$ 65.61
\$ 100.08	Mobil	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11.15	\$ 29.71	\$ 7.70	\$ 42.07	\$ 9.45
\$ 19.33	Shell	\$ -	\$ -	\$ 19.33	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 150.00	Honda Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150.00	\$ -	\$ -	\$ -	\$ -
\$ 22.99	Truck Maintenance	\$ -	\$ -	\$ -	\$ -	\$ 22.99	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 2,646.91	TOTAL	\$ 61.73	\$ 60.70	\$ 307.70	\$ 73.08	\$ 655.20	\$ 89.37	\$ 116.13	\$ 240.57	\$ 81.77	\$ 181.95	\$ 703.65	\$ 75.06
Credit Cards													
\$ 459.87	First USA (VISA)	\$ 12.74	\$ -	\$ 176.05	\$ -	\$ -	\$ -	\$ 52.76	\$ 38.20	\$ 93.50	\$ 41.89	\$ 44.73	\$ -
\$ 136.59	MBNA (M/C)	\$ 9.95	\$ 9.95	\$ 12.41	\$ 9.95	\$ 9.95	\$ 11.63	\$ 20.00	\$ 9.88	\$ 9.95	\$ 22.97	\$ 9.95	\$ 9.95
\$ 5,342.74	Citibank (VISA)	\$ 400.01	\$ 366.26	\$ 329.36	\$ 406.15	\$ 313.46	\$ 315.45	\$ 422.52	\$ 431.63	\$ 583.25	\$ 513.04	\$ 502.01	\$ 759.60
\$ 5,939.20	TOTAL	\$ 422.70	\$ 376.21	\$ 517.82	\$ 416.10	\$ 323.41	\$ 327.08	\$ 495.28	\$ 469.83	\$ 686.63	\$ 564.88	\$ 569.71	\$ 769.55
Groceries													
\$ 2,175.95	Statens/Albertsons	\$ 158.80	\$ 157.43	\$ 202.24	\$ 194.70	\$ 173.51	\$ 188.18	\$ 229.03	\$ 359.89	\$ 75.78	\$ 252.93	\$ 49.97	\$ 133.49
\$ 1,559.81	Costco	\$ 146.08	\$ 147.63	\$ -	\$ 130.66	\$ 161.71	\$ 244.88	\$ -	\$ -	\$ 199.85	\$ 184.51	\$ -	\$ 344.49
\$ 3,735.76	TOTAL	\$ 304.88	\$ 305.06	\$ 202.24	\$ 325.36	\$ 335.22	\$ 433.06	\$ 229.03	\$ 359.89	\$ 275.63	\$ 437.44	\$ 49.97	\$ 477.98
Retail													
\$ 1,605.10	Target	\$ -	\$ 170.47	\$ 152.10	\$ 79.95	\$ 62.39	\$ 72.40	\$ 69.62	\$ 80.66	\$ 235.46	\$ 301.56	\$ 89.77	\$ 290.72
\$ 438.45	K-Mart	\$ -	\$ -	\$ -	\$ 215.28	\$ -	\$ 85.95	\$ -	\$ 137.22	\$ -	\$ -	\$ -	\$ -
\$ 181.97	Wal-Mart	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 110.31	\$ -	\$ 71.66	\$ -	\$ -	\$ -
\$ 2,225.52	TOTAL	\$ -	\$ 170.47	\$ 152.10	\$ 295.23	\$ 62.39	\$ 158.35	\$ 179.93	\$ 217.88	\$ 307.12	\$ 301.56	\$ 89.77	\$ 290.72
House													
\$ 394.00	Home Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 394.00
\$ 814.69	Maintenance	\$ 25.00	\$ -	\$ -	\$ -	\$ 169.30	\$ 604.17	\$ -	\$ -	\$ -	\$ 16.22	\$ -	\$ -

Summarizes data and allows queries by finance actors, by categories, by harmfulness, by effectiveness

STEP 7: Analyze and review results

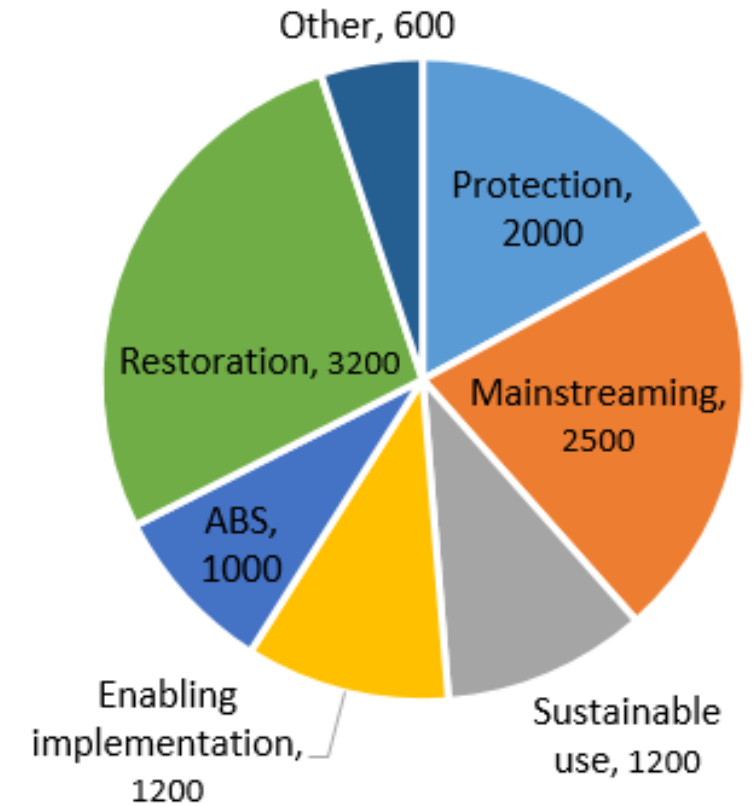
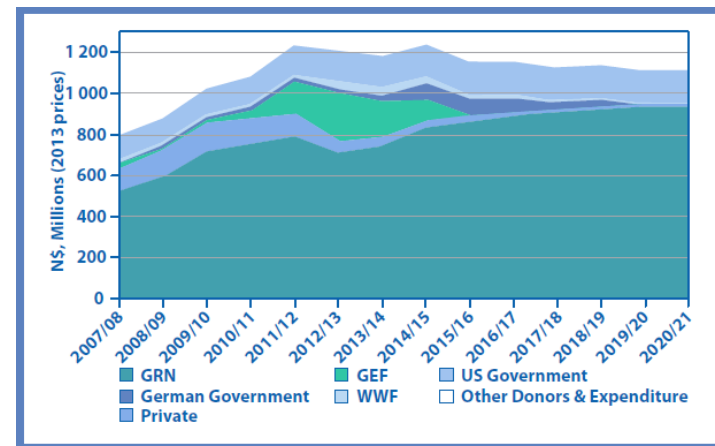
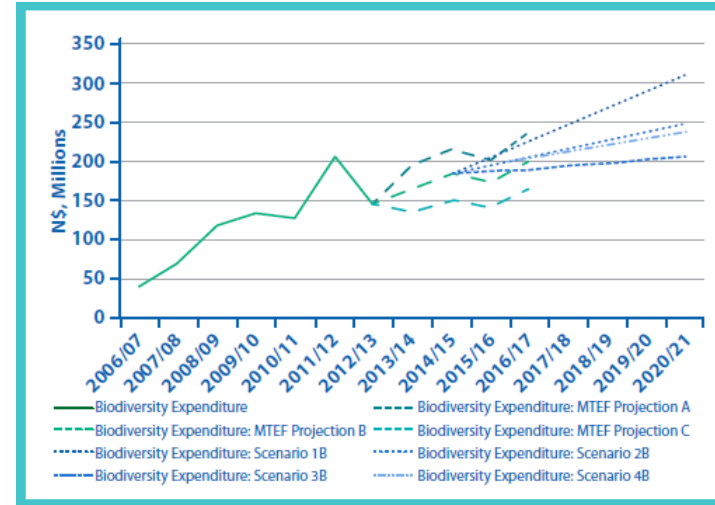
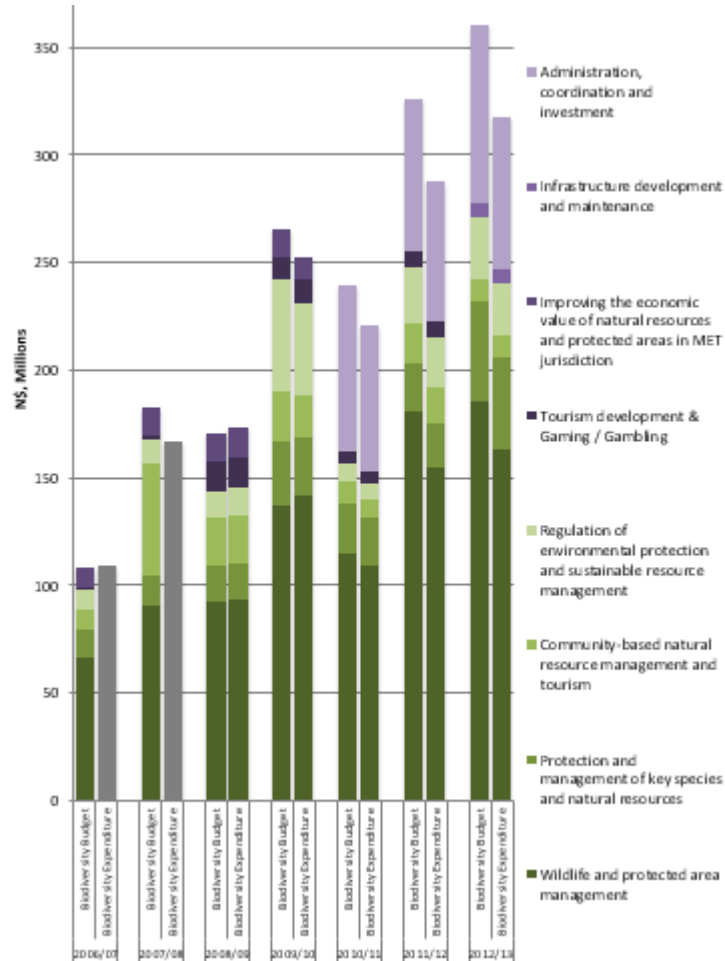
Development of a Baseline of Biodiversity Expenditure in Namibia

Annexes



Namibia Nature Foundation
August 2014

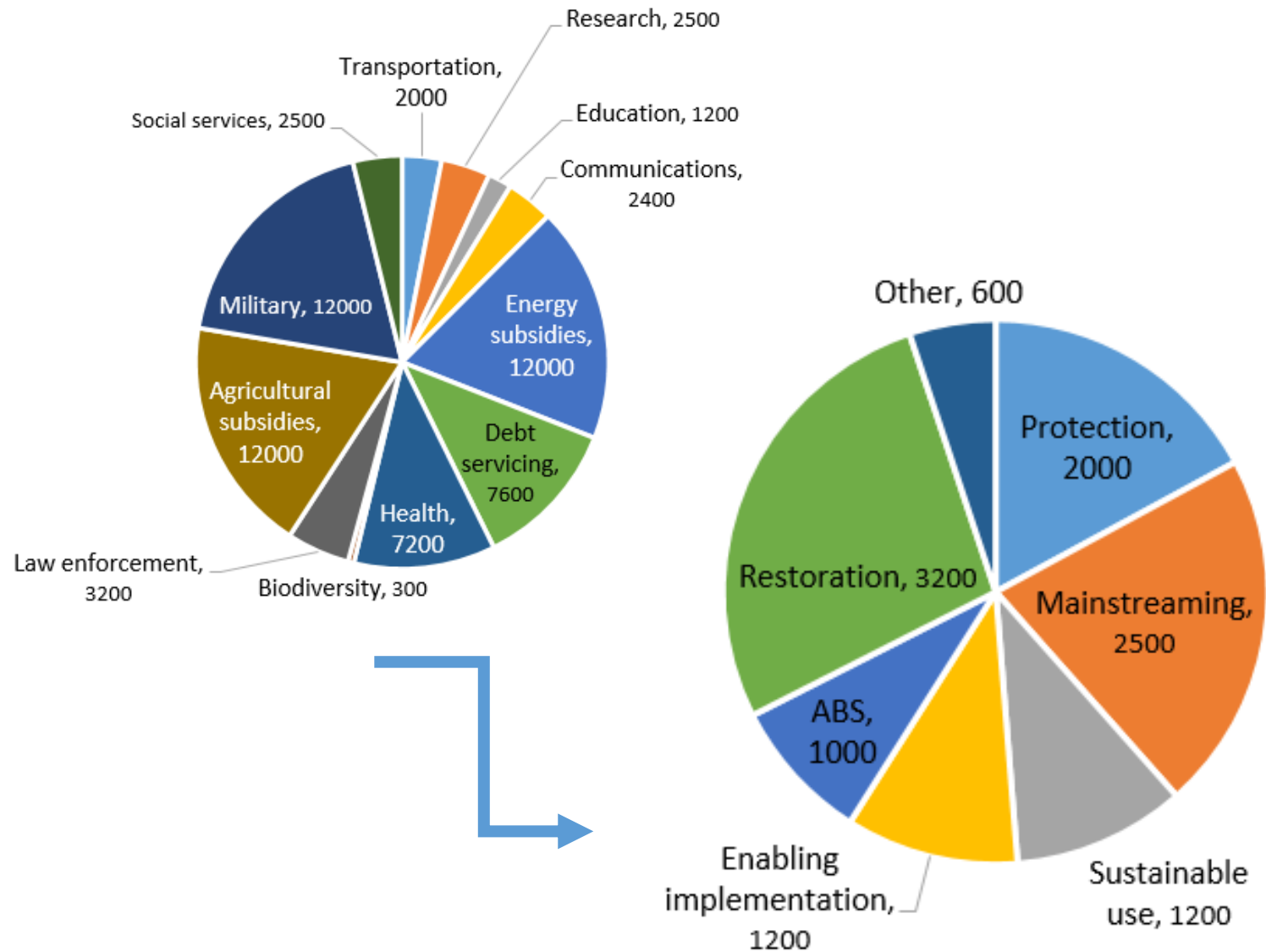
Key Issue 13: Analyzing results and their implications



Key Issue 13: Analyzing results and their implications

- **New insights**
- **Areas for further investigation**
- **Comparison between agencies, sectors**
- **Analysis of harmful expenditures**
- **Analysis of broad trends in effectiveness**

Key issue 14: Review alignment of expenditures with national goals and objectives



Key issues:

- 1. Begin with biodiversity trends and key drivers**
- 2. Coherent taxonomy for drivers, expenditures, costs**
- 3. Include existing and potential finance actors**
- 4. Look at public and private finance actors**
- 5. Variable granularity of data**
- 6. Duration of data period (past and future)**
- 7. Assigning percentage of attribution**

Key issues:

- 8. National vs. sub-national data**
- 9. Gauging effectiveness**
- 10. Gauging harmful expenditures**
- 11. Identifying a 'status quo' future baseline**
- 12. Identifying multiple future scenarios**
- 13. Analyzing results and their implications**
- 14. Reviewing alignment between expenditures and goals**

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BIOFIN

The Biodiversity Finance Initiative

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The Biodiversity Finance Initiative (BIOFIN) aims to develop and pilot a new approach and methodology for leveraging increased biodiversity investment at the national level



The \$28 million initiative, managed by UNDP, is currently working in 29 countries supporting governments to: review policies and institutions relevant for biodiversity finance; determine baseline investment and assess the costs of implementing National Biodiversity Strategies and Action Plans, thereby quantifying the biodiversity finance gap; develop comprehensive national resource mobilization strategies, and to initiate the implementation of those resource mobilization strategies. [Read more >](#)



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