



Financing Natural Infrastructure For Coastal Flood Damage Reduction

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The Nature
Conservancy

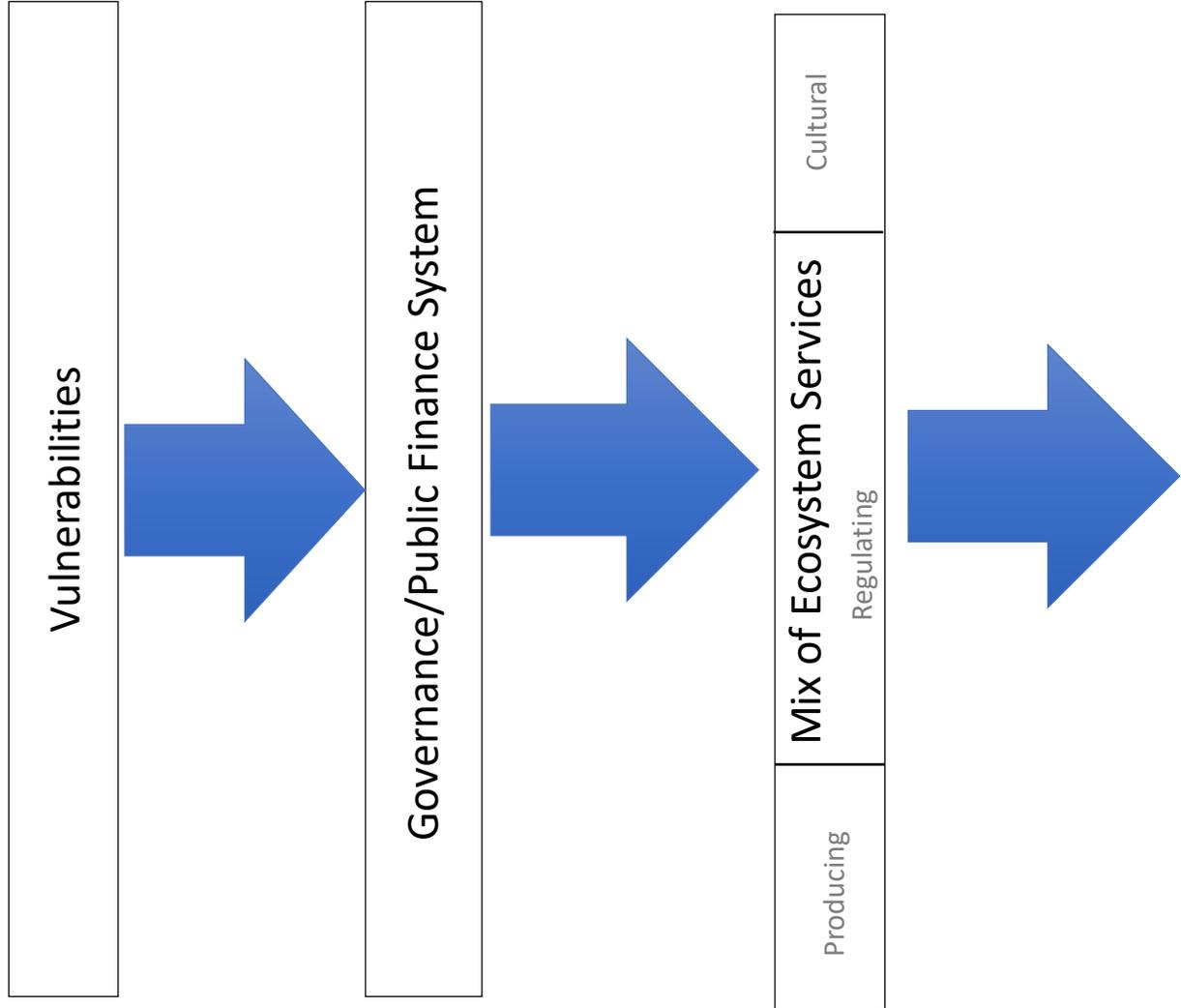


Wildlife
Conservation
Society

It's all about the packaging



Feasibility Screening (Package Construction)



		Who Pays?	
		Public	Private
Who Benefits?	Public	<p>1</p> <p>Benefits are purely public Cannot be meaningfully divided among users to allocate costs</p> <p>Options</p> <ul style="list-style-type: none"> General Tax Revenues General Obligation Bonds Specialized Consumption Tax 	<p>2</p> <p>Private funds provide benefits greater than the private funder realizes</p> <ul style="list-style-type: none"> Impact Investing <ul style="list-style-type: none"> Green Bonds <p>Private organization created to share benefits among organization members/funders</p> <ul style="list-style-type: none"> Hazard Assessment Districts Tax Increment Financing Districts Water/Sewer Stormwater
	Private	<p>3</p> <p>Publicly subsidized private expenditures</p> <ul style="list-style-type: none"> Tax Subsidies <ul style="list-style-type: none"> Income Tax Credits Property Tax Credits Revenue Bonds Moral Obligation Bonds 	<p>4</p> <p>Private charges for service in proportion to private benefits</p> <ul style="list-style-type: none"> Goods/Service Charges Insurance/Reinsurance Catastrophe Bonds/Resilience Bonds

Vulnerabilities/Exposure

Developed/undeveloped

Urban-rural

Shorefront v. inland
property

Topography

SLR-Flood/Inundations
Risks

		Who Pays			
Who Benefits		Public	Private		
		1	3		
	Public	General Infrastructure Spending that Could Incorporate Flood Protection	Pre and Post Disaster Funding		Public
		Transportation	Green Bonds		
		Water related infrastructure	US: State and Local Governments		
		Energy	4		
		Pre-Disaster Flood or Natural Features Related	Infrastructure Finance		
		Army Corps of Engineers	Special Purpose Districts		
		Coastal Wetlands Restoration Fund	Flood Control Districts		
		Estuary Habitat Restoration Act Funds	Storm water Districts		
		Louisiana Coastal Wetlands Restoration	Tax Increment Financing Districts		
		FEMA Pre-Disaster Mitigation Grants	Public-Private Infrastructure Partnersh		
	Private	Oil Spill Wetlands Restoration Funds	Insurance		Private
		State Infrastructure Banks	Pre-Disaster		
		Post-Disaster Funding	FEMA Community Rating System		
		Specific disaster related recovery funding	Post Disaster		
		FEMA Flood Mitigation Assistance Program	Insurance and Reinsurance Payouts		
			2	Catastrophe Bonds	
	Private	Tax Expenditures	Resilience Bonds		
		Disaster Recovery Deductions			
Deductions for Contributions To Conservation					

Creating a Finance Package That Works

- It's flood protection but can provide multiple benefits
 - Flood protection as co-benefit
- It's a multi-decade process
 - How can disasters reduce vulnerability
 - What might not work now might work in a decade
- Think outside the NOFA
 - Combine public and private resources
 - Create new jurisdictions to achieve scale and go global
- Policy Reforms
 - NFIP
 - Recovery -> Resilience