



**ADAPTATION**<sup>™</sup>  
**LEDGER**

# **ADAPTATION, BLOCKCHAIN AND SOCIAL GOOD**

**BLOCKCHAIN FOR SOCIAL IMPACT**

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**LEADER, ADAPTATION AND RESILIENCE SUBGROUP**

**INATBA CLIMATE ACTION WORKING GROUP**



# CLIMATE ADAPTATION IS A SOCIAL IMPACT ISSUE

CLIMATE CHANGE IS CAUSING RISKS AND PRESSURES THAT INCREASINGLY FORCE SOCIETIES TO RETHINK THEIR PRIORITIES AND PRINCIPLES FOR ACHIEVING SOCIETAL WELL-BEING AND ECONOMIC DEVELOPMENT.

*WORLD BANK, ADAPTATION PRINCIPLES, 2020*

# TWO SIDES OF “CLIMATE ACTION”

## MITIGATION

REDUCE  
EMISSIONS

REDUCE GHGs

REDUCE  
GLOBAL  
HEATING

MITIGATION IS ABOUT  
HOW TO REDUCE  
COMPOUNDS IN THE  
ATMOSPHERE (WHICH  
IS VERY CHALLENGING)

## ADAPTATION

ADJUST OR GET  
OUT OF THE WAY

ADAPT HUMAN  
SYSTEMS

STRENGTHEN AND  
RESTORE NATURAL  
SYSTEMS

ADAPTATION IS  
ABOUT ADDRESSING  
SOCIAL, ECONOMIC,  
ENVIRONMENTAL AND  
GOVERNANCE  
STRUCTURES

state of the climate



energy

insurance

APPLICATIONS



health



coastal areas



infrastructure



tourism



agriculture and forestry



water

# WHERE DOES ADAPTATION HAPPEN?

EVERYWHERE.

# TYPES OF ADAPTATION

## ECOSYSTEM-BASED OPTIONS



Ex: Mangrove rehabilitation, reforestation

## ECOSYSTEM-BASED HYBRID OPTIONS



Ex: Bamboo fences, flood-resistant parks

## INFRASTRUCTURE BASED OPTIONS



Ex: Dams, dikes, berms, sea walls

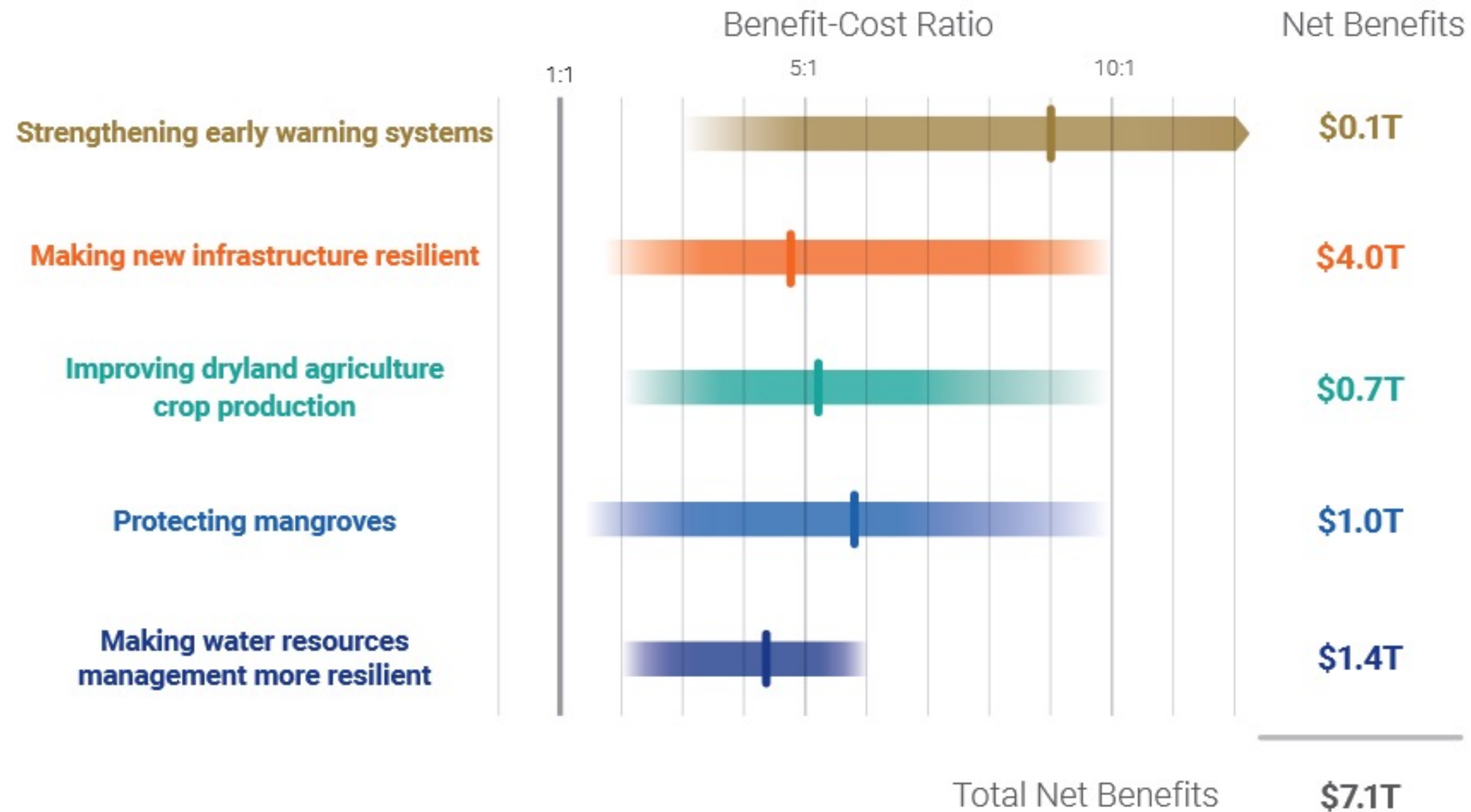
## POLITICAL AND SOCIAL OPTIONS



Ex: Land use management, disaster planning

# IS ADAPTATION WORTH IT?

**FIGURE 1.2** Benefits and Costs of Illustrative Investments in Adaptation

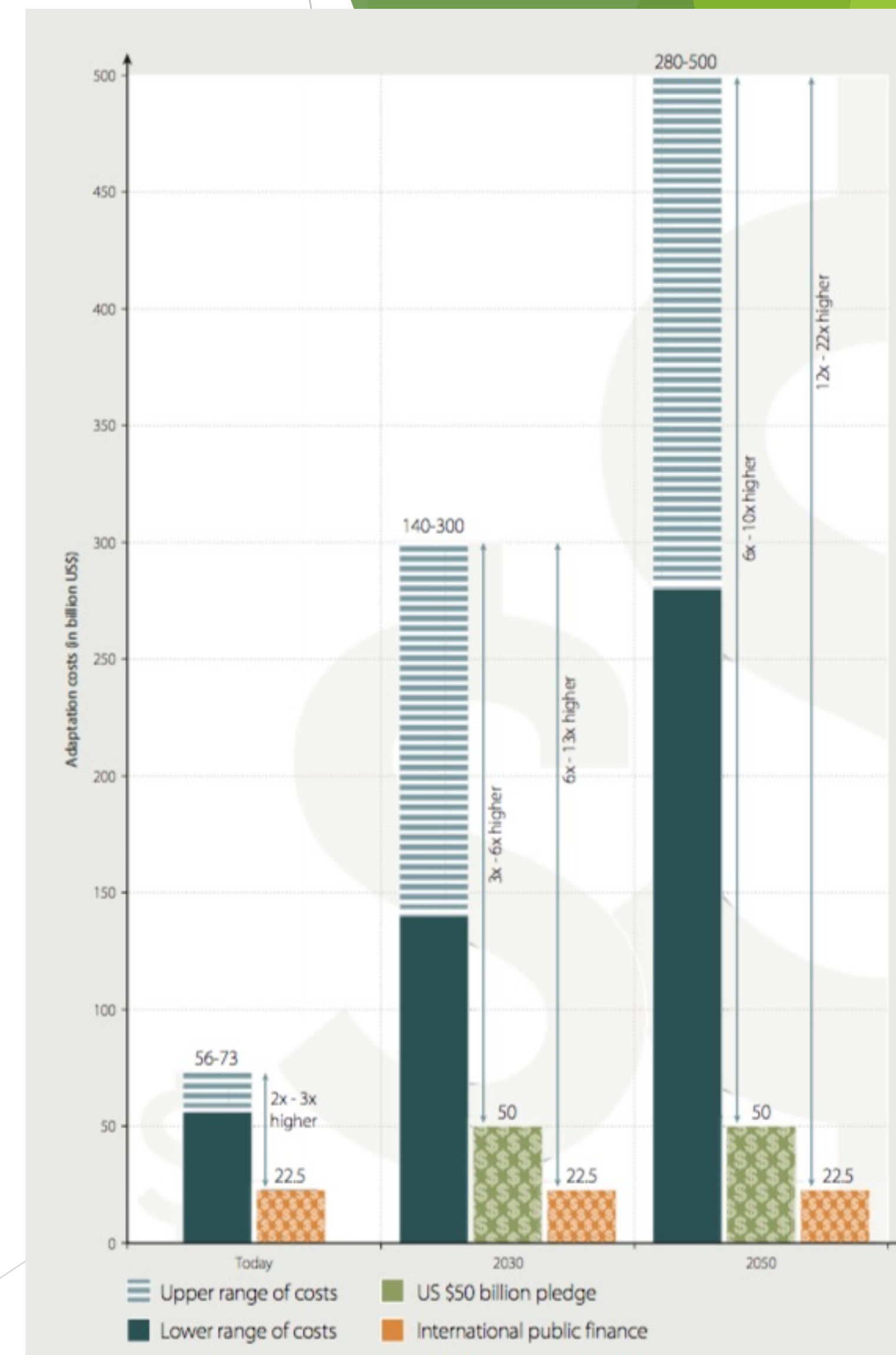


**YES, DEFINITELY  
BUT HOW, WHERE, AND WHY  
ARE CRITICAL ISSUES.....**

# CHALLENGES...AND OPPORTUNITIES

THE ADAPTATION SIDE OF THE CLIMATE CHANGE EQUATION IS STILL LAGGING...

- THE FINANCIAL SECTOR HAS YET TO MOBILIZE ON ADAPTATION IN A MEANINGFUL WAY. **VERY LITTLE/NO ATTENTION TO ADAPTATION IN ESG REPORTING.**
- BEST PRACTICES FOR ADAPTATION IN SPECIFIC CONTEXTS ARE LACKING; SUCH STANDARDS ARE ONLY BEGINNING TO BE DRAFTED (NOT COHESIVELY FOR EFFICIENT APPLICATION). **MALADAPTATION MUST BE AVOIDED.**
- INTEGRATION IS LACKING. **MUST FOCUS ON A COHERENT APPROACH FOR ADAPTATION**
- IN SPITE OF ABOVE...**ADAPTATION IS RISING ON THE GLOBAL AGENDA**
- **NO TIME FOR INCREMENTAL CHANGE: TRANSFORMATIONAL CHANGE IS AN IMPERATIVE**



Source: UNEP Adaptation Finance Gap Report, 2016

# OVERVIEW OF RELATED SYSTEMS

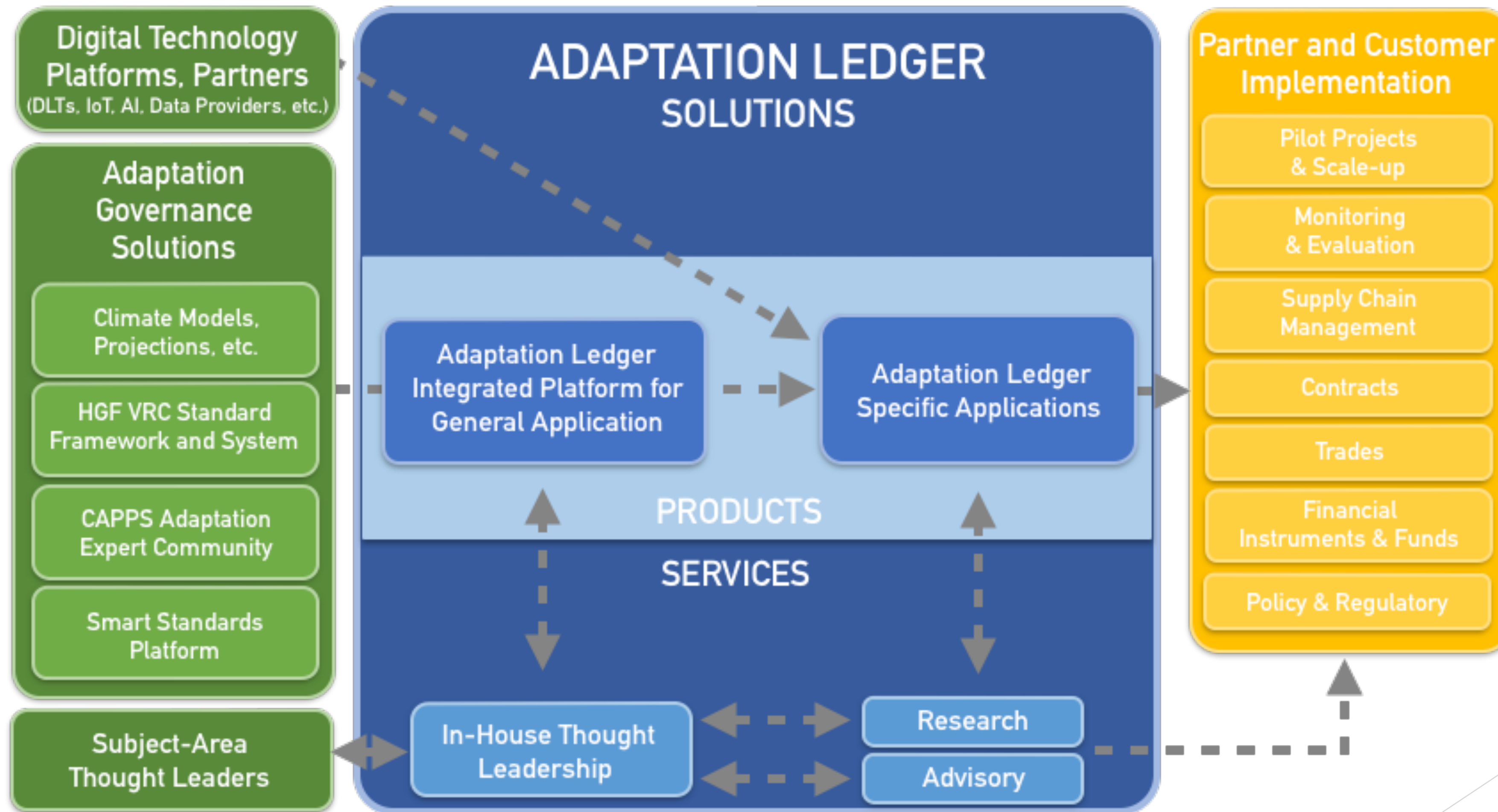
THE FOLLOWING SYSTEMS OVERLAP - THERE ARE MANY CHALLENGES AND OPPORTUNITIES:

- CLIMATE SERVICES
- CLIMATE ACTIONS (PROJECTS, PROGRAMS, PRODUCTION, CONSUMPTION, BEHAVIOR...)
- CLIMATE FINANCE
- CLIMATE GOVERNANCE (MULTI-LEVEL GOVERNANCE)
- ADAPTATION FRAMEWORKS (PLANNING, IMPLEMENTATION, M&E...)
- THEORY OF CHANGE / TRANSFORMATIONAL CHANGE
- MRV AND M&E FRAMEWORKS AND STANDARDS
- SUSTAINABILITY / SDGS / CLIMATE / DISASTER RISK REDUCTION ... POLICY COHERENCE
- DIGITAL AND GOVERNANCE INNOVATIONS (AND ADAPTATION FINANCE INNOVATIONS - VRCs)

INTEGRATED PLATFORM (SYSTEM) NEEDED TO OVERCOME CHALLENGES AND REALIZE OPPORTUNITIES



# HOW INTEGRATE FOR TRANSFORMATIONAL CHANGE? ADAPTATION LEDGER ECOSYSTEM



# PURPOSE FOR INTEGRATED PLATFORM

- **AIM: TRANSFORMATIONAL CHANGE FOR SYSTEM-LEVEL SCALE/SPEED**
- **SUPPORTS URGENT NEED FOR MASSIVE INVESTMENT INTO CLIMATE ADAPTATION**
- **OVERCOME CHALLENGES OF CURRENT SYSTEMS THAT ARE IMMATURE, POORLY-CONNECTED, SLOW-MOVING...TO**

*REDUCE COSTS*

*IMPROVE DATA AND ENVIRONMENTAL INTEGRITY*

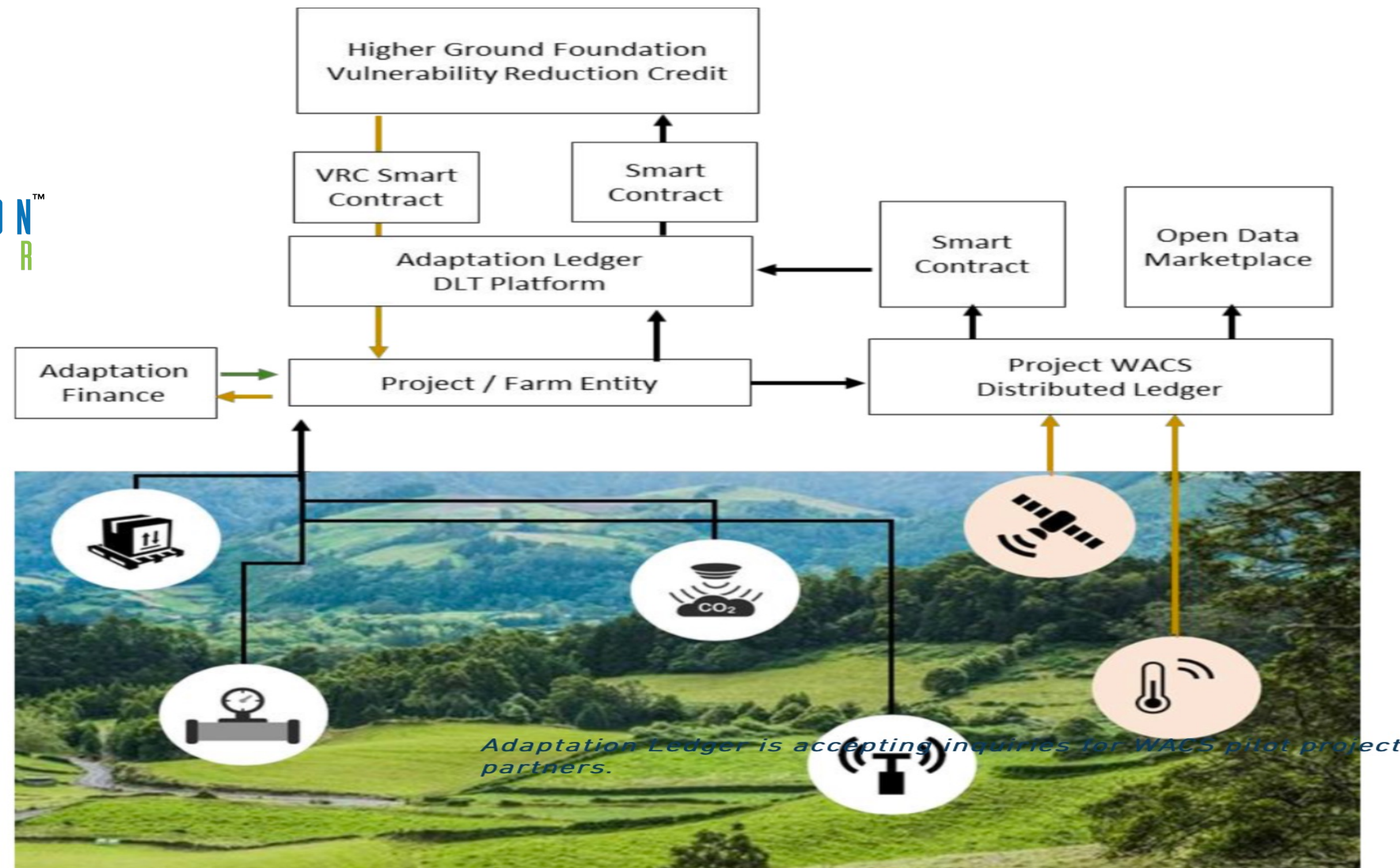
*INCREASE TRANSPARENCY AND TRACKING TO*

*INCREASE ACCESS TO FINANCE*

# **SPECIFIC APPLICATIONS: ADAPT IT™ SUITE OF ADAPTATION TOOLS**

- **ADAPT IT™ IS A CUSTOMIZABLE FOUNDATION FOR APPLICATION DEVELOPERS**
  - **TO MOBILIZE FINANCE WITH BLOCKCHAIN-ENABLED INFORMATION CONVEYANCE**
  - **SMART STANDARDS**
  - **INNOVATIVE GOVERNANCE APPROACHES**
  - **ADAPTATION METRIC – VULNERABILITY REDUCTION CREDIT (VRC™)**

# EXAMPLE: WELL ADAPTED COFFEE SUPPLY (WACS) APPLICATION



# WACS:

## WHAT DOES IT DO? WHO BENEFITS?

- *WACS PROVIDES DLT-ENABLED, ROBUST, VERIFIABLE INFORMATION ON PROVENANCE OF COFFEE SUPPLY TO REDUCE CLIMATE VULNERABILITY OF ENTIRE COFFEE SUPPLY CHAIN*
- **PRODUCERS CAN ACCESS FINANCE/SUBSIDIES TO SUPPORT ADAPTATION EFFORTS AND ACCESS MARKETS, REPORT THEIR ADAPTATION ACTIONS**
- **BUYERS HAVE BETTER DATA FOR IMPROVED SOURCING AND ADAPTATION SUPPORT OPTIONS**
- **FINANCIERS HAVE BETTER RISK PROFILE INFORMATION**
- **CONSUMERS CAN SUPPORT VULNERABLE FARMERS WITH SPECIFIC INFORMATION**

**FEEL FREE TO GET IN TOUCH:**

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**ADAPTATION LEDGER IS ADVANCING CLIMATE  
ADAPTATION SOLUTIONS AND MOBILIZING FINANCE  
THROUGH THE INTEGRATION OF EMERGING  
TECHNOLOGIES, SMART STANDARDS AND A UNIFIED  
METRIC FOR VULNERABILITY REDUCTION**

