



# Taxonomy for Climate Adaptation and Resilience Activities

September 2026 Update

# About Tailwind Futures

**Tailwind Futures is a strategic investment firm focused on resilience technologies.**

Extreme weather and natural disasters, combined with geopolitics, tariffs and other disruptors bring dramatic changes in how corporations source, manufacture and conduct business.

We invest in technologies that help corporations futureproof the infrastructure, workforce, and supply chain of today and tomorrow.

We back exceptional founders with a proven solution, commercial traction and deep commitment to deploying solutions that are beneficial to businesses and communities.

# September 2026 Update: Overview

**This deck contains the September 2026 version of the Taxonomy**, addressing feedback from the market, our own experience using the Taxonomy in tracking market developments and to foster alignment with other taxonomies that have since been published. While the theme count, structure and intent remain the same, there are some changes worth noting:

## **Changes to Themes and Sectors**

- Themes: Cities & Settlements is now Cities & Communities.
- Sectors: We've adjusted several sector names and definitions and have added the following new sectors: Housing, Waste Management, Energy, and Commerce.
- We have consolidated the sectors in the Social Systems theme to reduce redundancies.
- See below for a comprehensive table of the sector changes.

## **Changes to Technology Categories**

- Technology examples are now sorted into more granular categories: Digital Solutions & Analytics; Sensing and Autonomous Technologies; Advanced Materials and Engineered Solutions; Nature-Based Solutions; Financial and Insurance Solutions; and Services.
- See below for definitions for each category.

## **Changes to External Indicator Mapping**

- For the [Global Goal on Adaptation](#), we replaced Sharm-El-Sheik indicators with the [Belém indicators](#)

# Sector Updates

| v2026 Theme                  | Theme Update | v2024 Sector                       | V2026 Updated Sector                             | Nature of Update                         |
|------------------------------|--------------|------------------------------------|--------------------------------------------------|------------------------------------------|
| Agriculture, Food & Forestry | None         | Food Systems                       | Food Processing, Logistics & Retail              | Name changed                             |
| Cities & Communities         | Name Change  | Buildings                          | Housing                                          | More granular breakdown                  |
|                              |              | Buildings                          | Public Buildings                                 | More granular breakdown                  |
| Water & Sanitation           | None         | Water Infrastructure               | Water Supply & Treatment                         | Name changed                             |
|                              |              | Sanitation Infrastructure          | Stormwater & Wastewater Management               | Name changed                             |
| Social Systems               | None         | Government Operations              | Public Policy and Government Operations          | Name changed                             |
|                              |              | Peace & Security                   | Peace, Security & Defense                        | Name changed                             |
|                              |              | Human Migration & Resettlements    | Disaster Risk Reduction (DRR) & Human Migrations | Combined with DRR                        |
|                              |              | Disaster Risk Reduction (DRR)      |                                                  | Combined with Human Migrations           |
|                              |              | Employment and Livelihoods         | Employment and Livelihoods                       | Combined with Financial Inclusion        |
|                              |              | Financial Inclusion                |                                                  | Combined with Employment and Livelihoods |
|                              |              | Education, Information & Knowledge | Education, Science and Cultural Heritage         | Combined with Cultural Heritage          |
|                              |              | Cultural Heritage                  |                                                  | Combined with Education                  |
| Infrastructure               | None         | ICT Infrastructure                 | Datacenters & Telecom                            | Name changed                             |
|                              |              | N/A                                | Waste Management                                 | New sector                               |
| Industry & Commerce          | None         | N/A                                | Energy                                           | New sector                               |
|                              |              | Information technology             | Software/AI & IT Services                        | Name changed                             |
|                              |              | Tourism                            | Tourism & Hospitality                            | Name changed                             |
|                              |              | N/A                                | Commerce                                         | New sector                               |

Note: This table only includes the Themes and Sectors where we have made changes. Please refer to the [spreadsheet](#) for a full list of Themes and Sectors.

# Technology Categories

Much has changed in the technology world since we published the first version of the Taxonomy in January 2024. The preponderance of AI, datacenters, and physical AI (autonomous drones, robotics, etc.) calls for a more nuanced breakdown of technologies than the traditional software/hardware divide, which this new set of categories captures.



## Digital Solutions and Analytics

Software/AI platforms and digital tools whose value is delivered through the processing and application of data.



## Advanced Materials and Engineered Solutions

Physical technologies and manufactured goods whose resilience value is delivered through their physical operation or material composition.



## Sensing and Autonomous Technologies

Technologies that pair physical hardware with embedded software/AI intelligence to sense, monitor, or interact with the physical environment.



## Nature-based Solutions

Interventions that use or restore ecological systems and processes to deliver resilience outcomes.



## Financial and Insurance Solutions

Finance products and mechanisms that price, transfer, or pool climate risk and direct capital toward resilience investment.



## Services

Professional, technical, and skilled trade services that protect or restore physical assets and communities against climate impacts, with human expertise and labor as the primary input.

# Taxonomy Overview

# A Taxonomy for Adaptation & Resilience

- This deck presents Tailwind Futures' sector-based taxonomy to organize and track activities and financing across sectors. By outlining this starting point for a common language across a range of A&R activities and investor types, we aim to increase alignment and, ultimately, investment.
- The 2024 edition taxonomy was developed with funding and support from ClimateWorks Foundation, and peer-reviewed by a broad group of investors and philanthropies for usability and completeness. Key partners in this effort include the Global Adaptation and Resilience Investor group (GARI)'s [Climate Resilience Investment in Solutions Principles](#), the Climate Bonds Initiative's [Resilience Taxonomy](#), the Climate Policy Institute's [adaptation and Resilience Finance practice](#), and Vibrant Data Labs' [Climate Finance Tracker](#).
- The 2026 update was conducted in-house but was informed by feedback from practitioners and our own experience.
- Several partner organizations work on related initiatives intended to help scaffold the growing adaptation and resilience market – including investment guidance, finance tracking, and investment eligibility criteria. We coordinated closely with these partners to ensure the coherence and interoperability of our respective efforts. While the use cases and final products may be different, users will find a consistent sector breakdown across these initiatives, which will help investors and funders navigate the market and identify areas to deploy capital.
- We extend our warmest thanks to the many partners and reviewers who contributed their time and expertise to this project. Any error or omission is our sole responsibility. Feedback and questions are welcome: [info@tailwindfutures.com](mailto:info@tailwindfutures.com)

# Target Audience and Use Cases

- **This taxonomy is a classification and exploration tool:**
  - It should be used in tandem with the definition provided below to determine whether individual projects or investments are, in fact, adaptation. We also encourage users to consider [maladaptation](#) when assessing projects of investment opportunities.
- **The intended audience(s) of this taxonomy include:**
  - Investors, Donors and Researchers looking to classify projects, activities, solutions or companies in a structured, consistent set of themes and sub-themes of relevance to adaptation and resilience.
  - Investors and Donors looking to identify whether an existing or new project, company or product could have adaptation and resilience benefits.
  - Anyone curious about climate adaptation and resilience, who is interested in understanding how climate change may impact different economic sectors, ecosystems, or society. Users can explore examples of technologies, products, services, financial and insurance products or enabling interventions that may help mitigate these impacts.
- **What this taxonomy is not:**
  - It is NOT a white-list of solutions or activities that are *always* beneficial for adaptation and resilience. Adaptation is almost always location- and context- dependent. Some technologies and solutions listed as examples may in fact lead to maladaptation if used inadequately, at the wrong place or time.
  - It is NOT an exhaustive and final list of 'qualifying' A&R activities. It contains examples intended to help the reader broaden their horizon as to the breadth of interventions required to enhance adaptation and resilience globally, but the examples are neither exhaustive nor exclusive.

# Use Cases

## Investors and Funders

This taxonomy provides examples of investment opportunities across asset classes, financial instruments, and sectors. Investors and funders will find examples of investment opportunities that include, among others:

- Infrastructure/ project finance
- VC/PE
- Bonds and public equities
- Blended finance and other innovative instruments
- Grants and philanthropic investments

## Researchers

This taxonomy may be used to categorize existing companies, products and services, or philanthropic grants. It provides a common platform to track adaptation finance across sectors, and is used to inform, among others:

- Tracking private investments in A&R startups
- Tracking global climate finance flows (public and private)

# Definitions: Adaptation & Resilience (A&R)

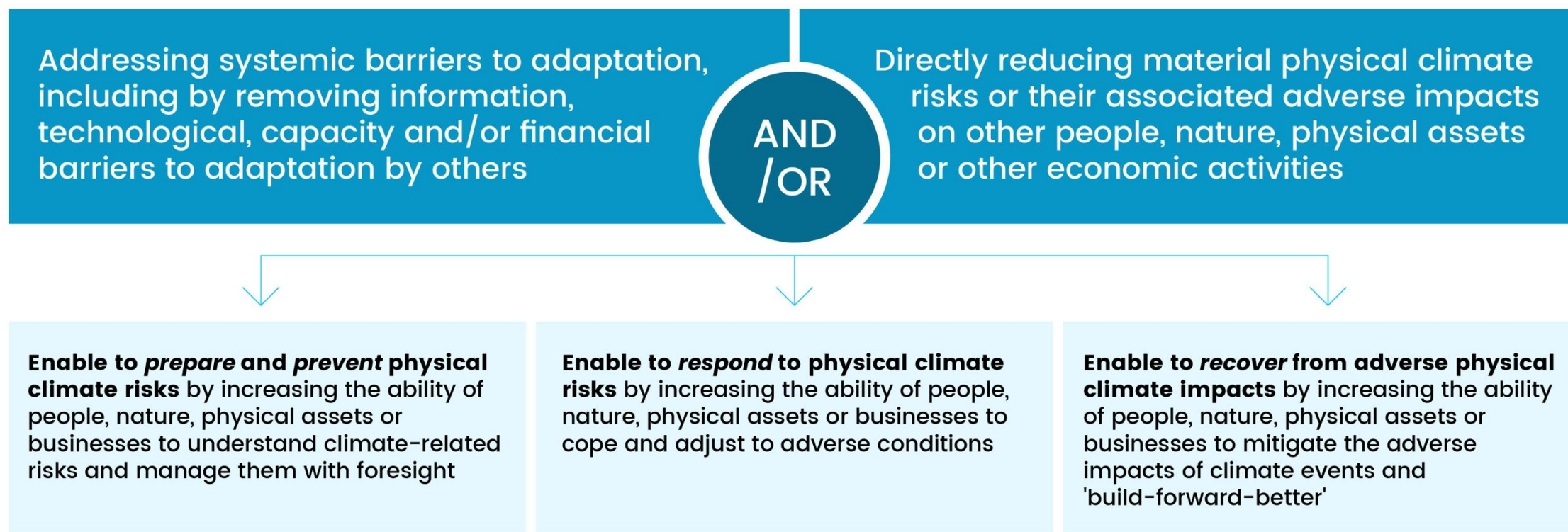
We refer to activities and investments committed to advancing climate change adaptation and building climate resilience as 'Adaptation and Resilience' (A&R)

The terms climate change adaptation and climate resilience are sometimes used interchangeably. Although there is overlap in how the terms are used, one may not necessarily substitute for the other. (Source: IPCC AR6)

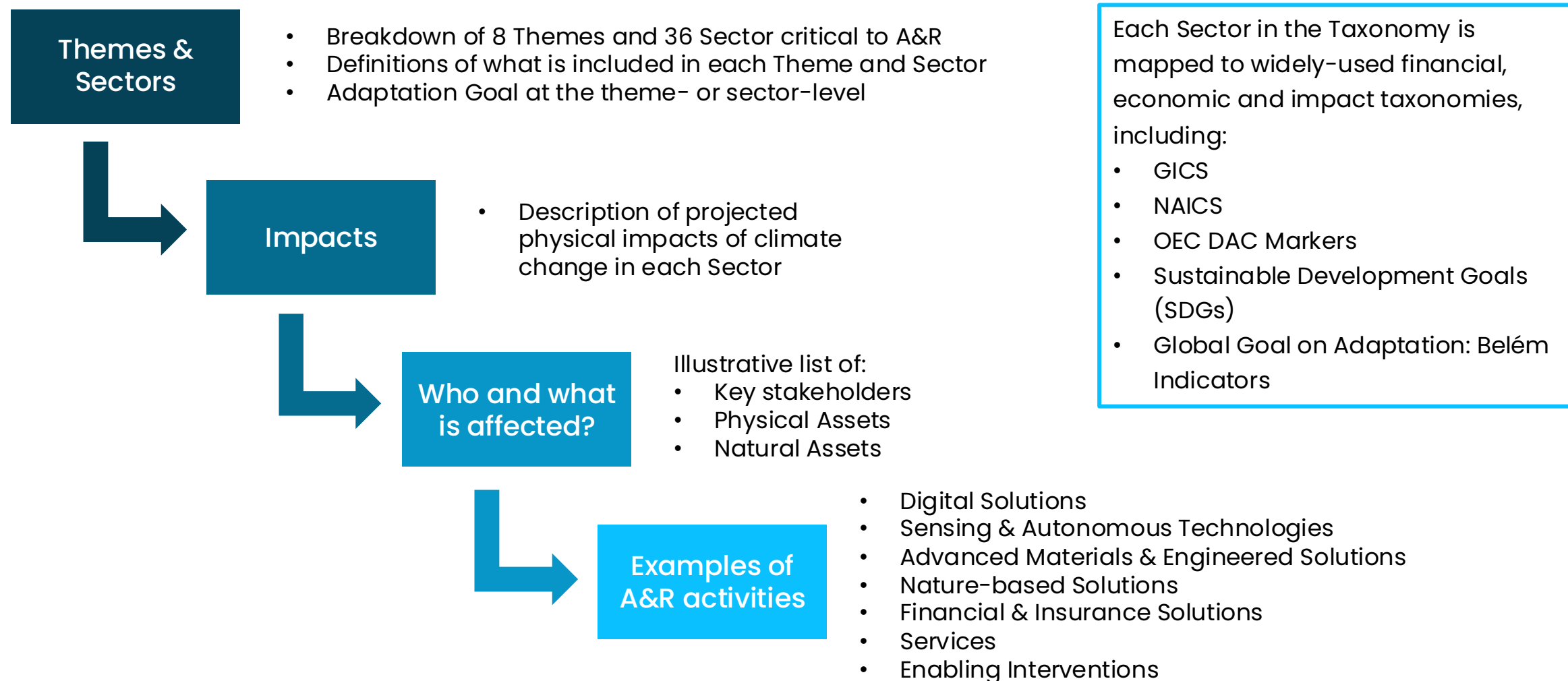
- **Adaptation is the process of adjusting to actual or expected climate change and its effects.** Climate adaptation seeks to minimize harm from climate change impacts and promote economic, social and natural ecosystems' co-benefits. (adapted from IPCC 2022)
- **Resilience is the ability of a human or natural system to withstand the impacts of exogenous shocks** and to cope with or rebound from them.
  - The term describes the capacity of a system to withstand multiple shocks and stressors (socioeconomic, market-related, climate-related).
  - Resilience is associated with system-wide changes, including a range of solutions to enhance social, human, natural, physical and financial capacities (LSE 2022).
- **Climate resilience is strengthening a system to withstand current or expected climate-related shocks or stressors.**
- **Maladaptation** refers to "actions that may lead to increased risk of adverse climate-related outcomes, including through increased GHG emissions, increased vulnerability to climate change, or diminished welfare, now or in the future. Most often, maladaptation is usually an unintended consequence." (IPCC AR6 2022). For more information about addressing maladaptation, see Tailwind Futures' [Maladaptation Diligence Toolkit](#).

# Definitions: A&R Solutions

Adaptation and Resilience (A&R) solutions are products or services that prepare, prevent, respond to and/or enable recovery from climate shocks and stressors.

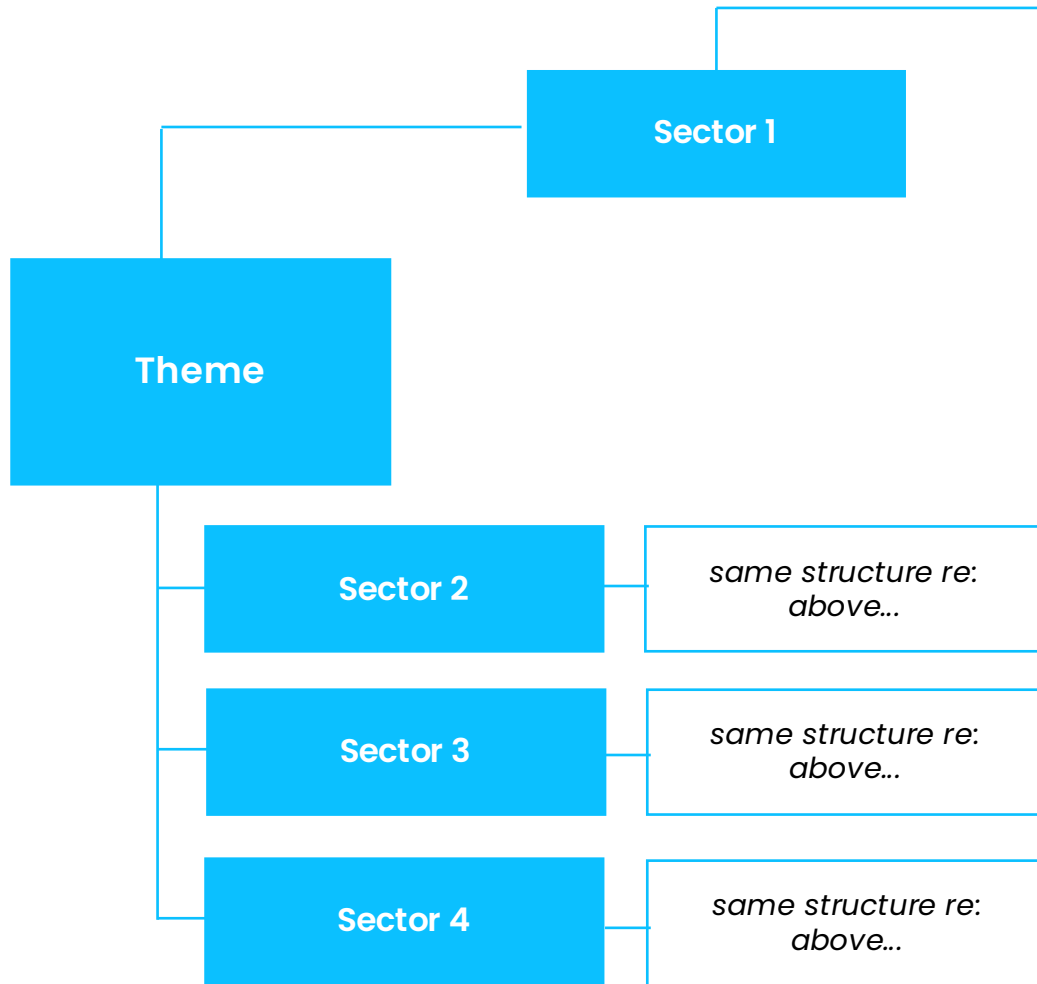


# Taxonomy Structure



# Taxonomy Definitions

## Activities & Assets



|                                           |                                                                                                                                                                 |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical & Natural Assets                 | Examples of the primary physical and natural assets that require investments or interventions to become resilient and/or reduce climate risk for others.        |
| Digital Solutions & Analytics             | Examples of software/AI platforms and digital tools whose value is delivered through the processing and application of data software                            |
| Sensing & Autonomous Technologies         | Examples of technologies that pair physical hardware with embedded software/AI intelligence to sense, monitor, or act on the physical environment               |
| Advanced Materials & Engineered Solutions | Examples of physical technologies and manufactured goods whose resilience value is delivered through physical operation or material composition                 |
| Nature-based Solutions                    | Examples of interventions that use or restore ecological systems and processes to deliver resilience outcomes                                                   |
| Finance & Insurance Solutions             | Examples of products and mechanisms that price, transfer, or pool climate risk and direct capital toward resilience investment.                                 |
| Services                                  | Examples of professional & trade services that protect or restore assets & communities from climate hazards, with human expertise & labor as the primary input. |
| Enabling Interventions                    | Examples of policies, social interventions and community activities that increase adaptive capacity and/or reduce climate risk                                  |

# Taxonomy Themes and Sectors

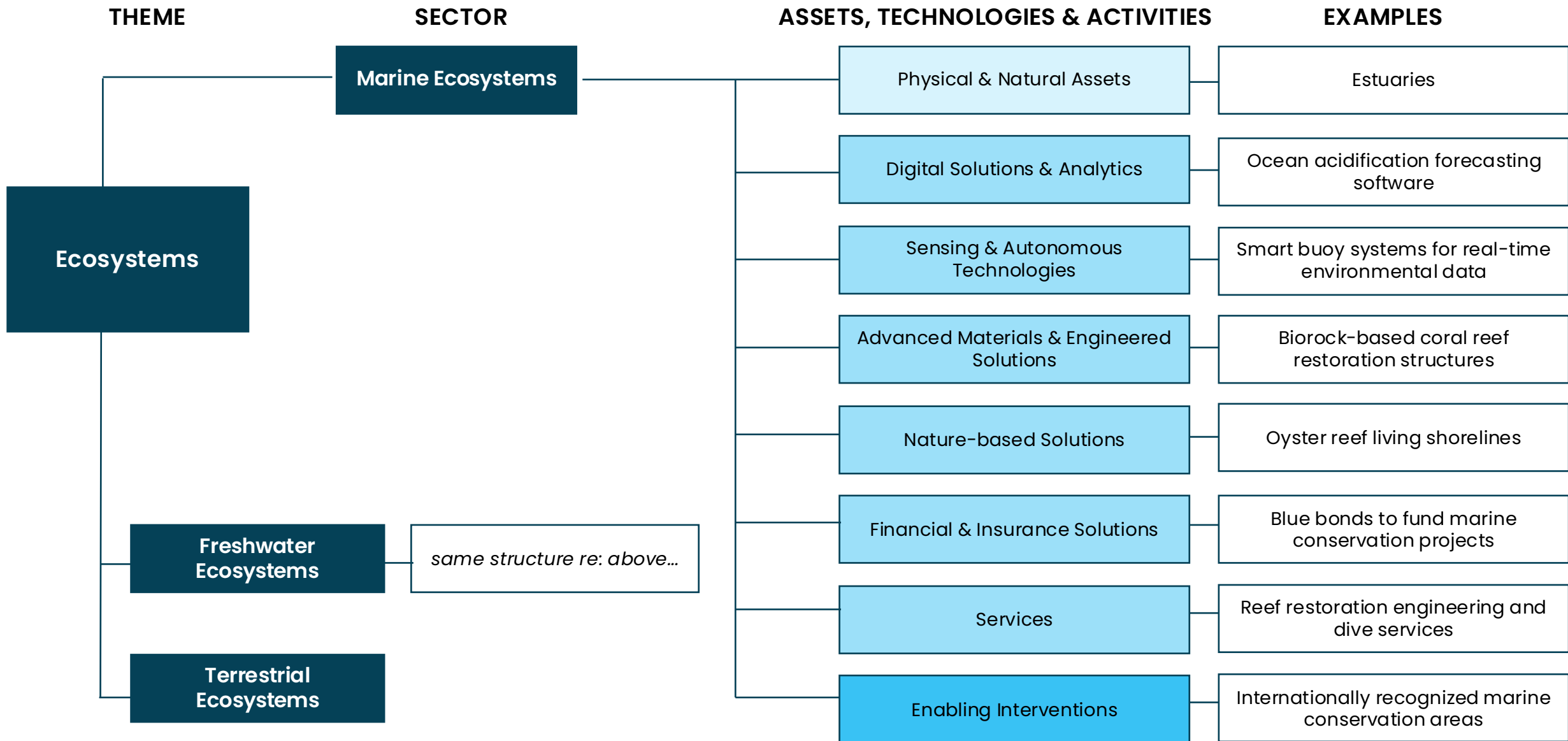


# Alignment with the Global Goal on Adaptation & SDGs

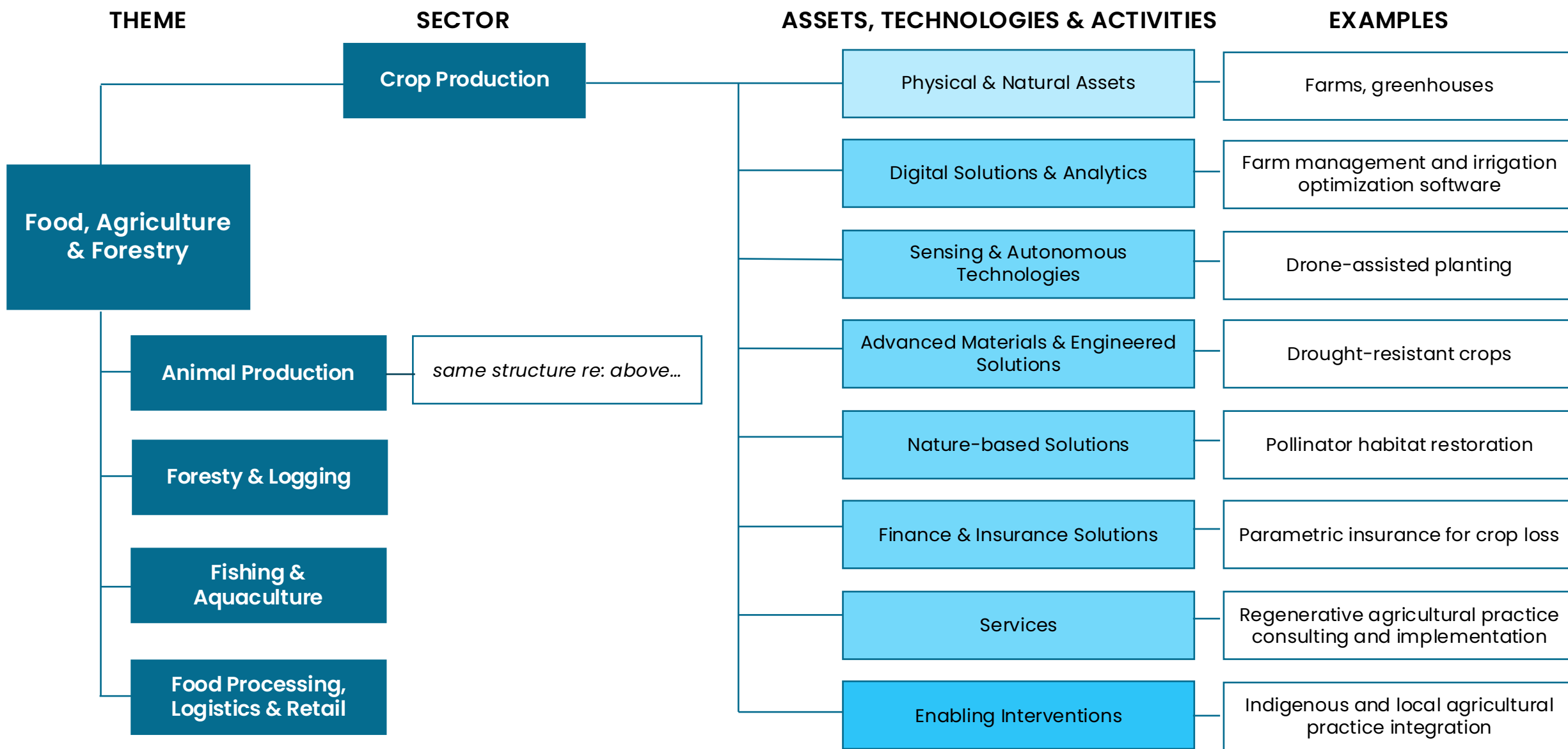
| Theme                        | Global Goal on Adaptation Framework (COP28: <a href="#">CMA5</a> , art. 9)                                                                                                                                                                                                                                                                                                                                                                                                                                      | Alignment with SDGs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ecosystems                   | (d) Reducing climate impacts on ecosystems and biodiversity, and accelerating the use of ecosystem-based adaptation and nature-based solutions, including through their management, enhancement, restoration and conservation and the protection of terrestrial, inland water, mountain, marine and coastal ecosystems;                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                               |
| Food, Agriculture & Forestry | (b) Attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all;                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Cities & Settlements         | (e) Increasing the resilience of infrastructure and human settlements to climate change impacts to ensure basic and continuous essential services for all, and minimizing climate-related impacts on infrastructure and human settlements;                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Water & Sanitation           | (a) Significantly reducing climate-induced water scarcity and enhancing climate resilience to water-related hazards towards a climate-resilient water supply, climate-resilient sanitation and towards access to safe and affordable potable water for all;                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Health                       | (c) Attaining resilience against climate change related health impacts, promoting climate-resilient health services, and significantly reducing climate-related morbidity and mortality, particularly in the most vulnerable communities;                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Social Systems               | (f) Substantially reducing the adverse effects of climate change on poverty eradication and livelihoods, in particular by promoting the use of adaptive social protection measures for all;<br>(g) Protecting cultural heritage from the impacts of climate-related risks by developing adaptive strategies for preserving cultural practices and heritage sites and by designing climate-resilient infrastructure, guided by traditional knowledge, Indigenous Peoples' knowledge and local knowledge systems; |   <br>   |
| Infrastructure               | (e) Increasing the resilience of infrastructure and human settlements to climate change impacts to ensure basic and continuous essential services for all, and minimizing climate-related impacts on infrastructure and human settlements;                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                           |
| Industry & Commerce          | Not included in GGA. We borrow language from the Climate Bonds Initiative/UNDRR white paper: "ensur[ing] that industrial and commercial operations are resilient to the projected and future impacts of climate change so that their economic output, operational safety, affordability of products and services and the provision of employment are not adversely affected by such impacts"                                                                                                                    |                                                                                                                                                                                                                                                                      |

# Theme & Sector Highlights

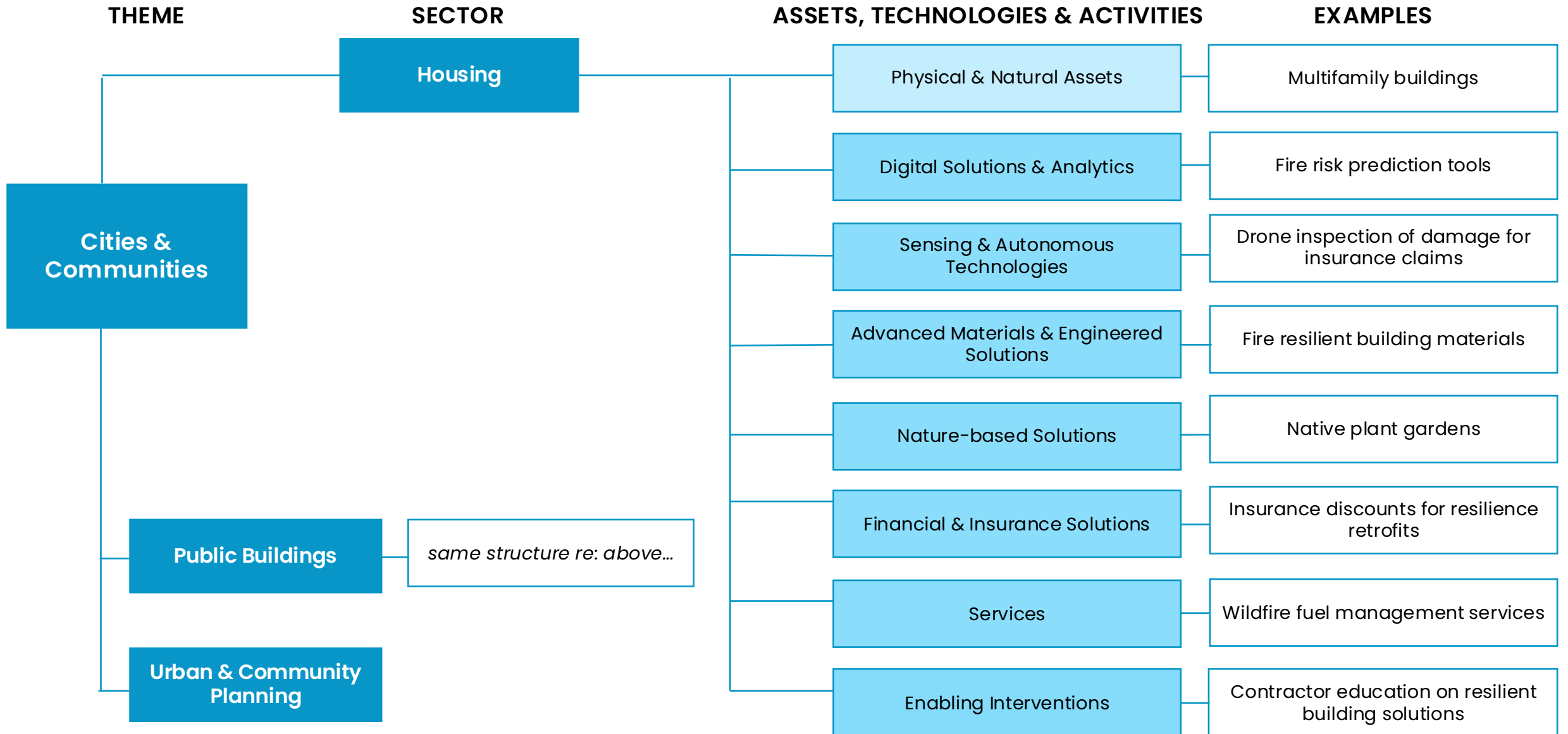
# Theme Highlight: Ecosystems



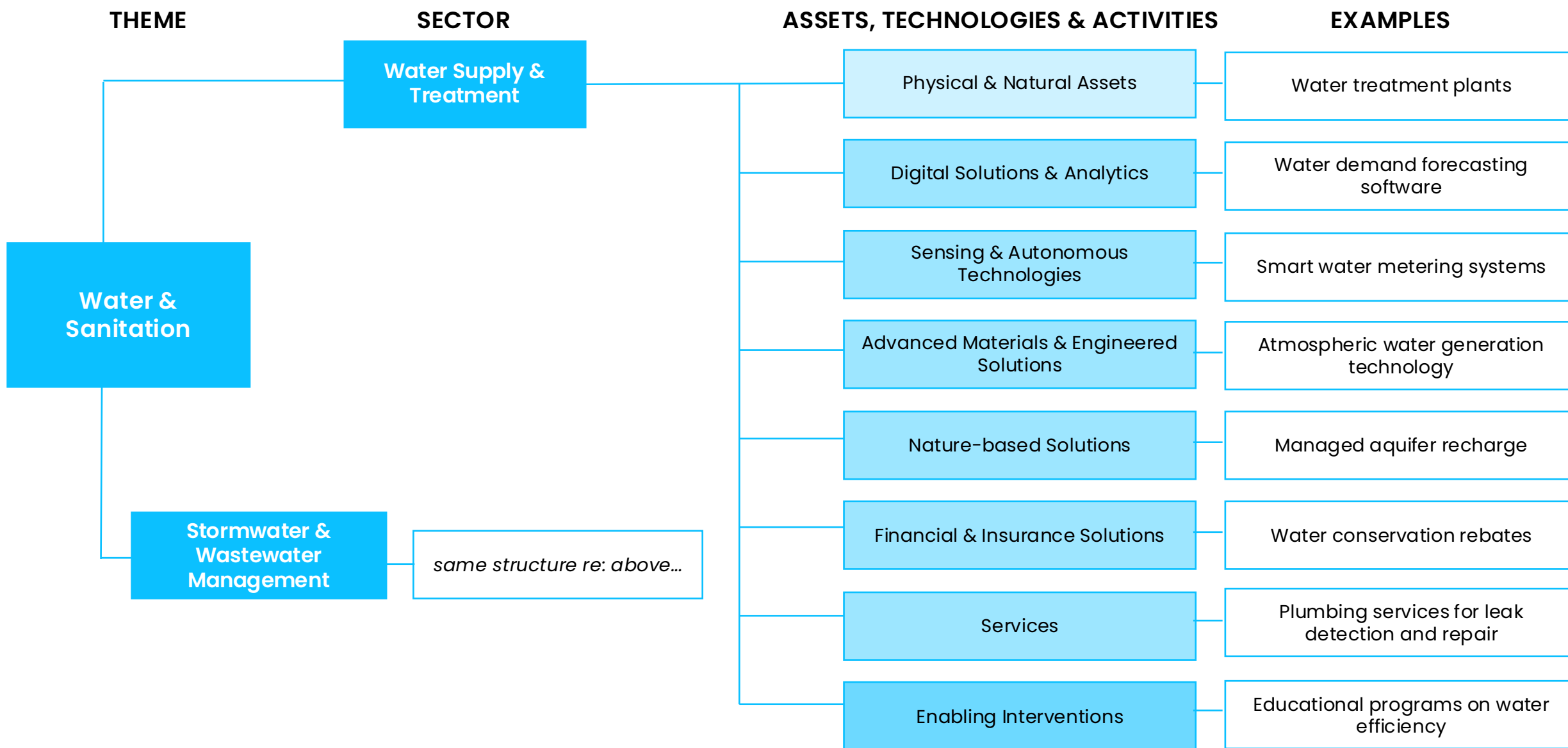
# Theme Highlight: Food, Agriculture & Forestry



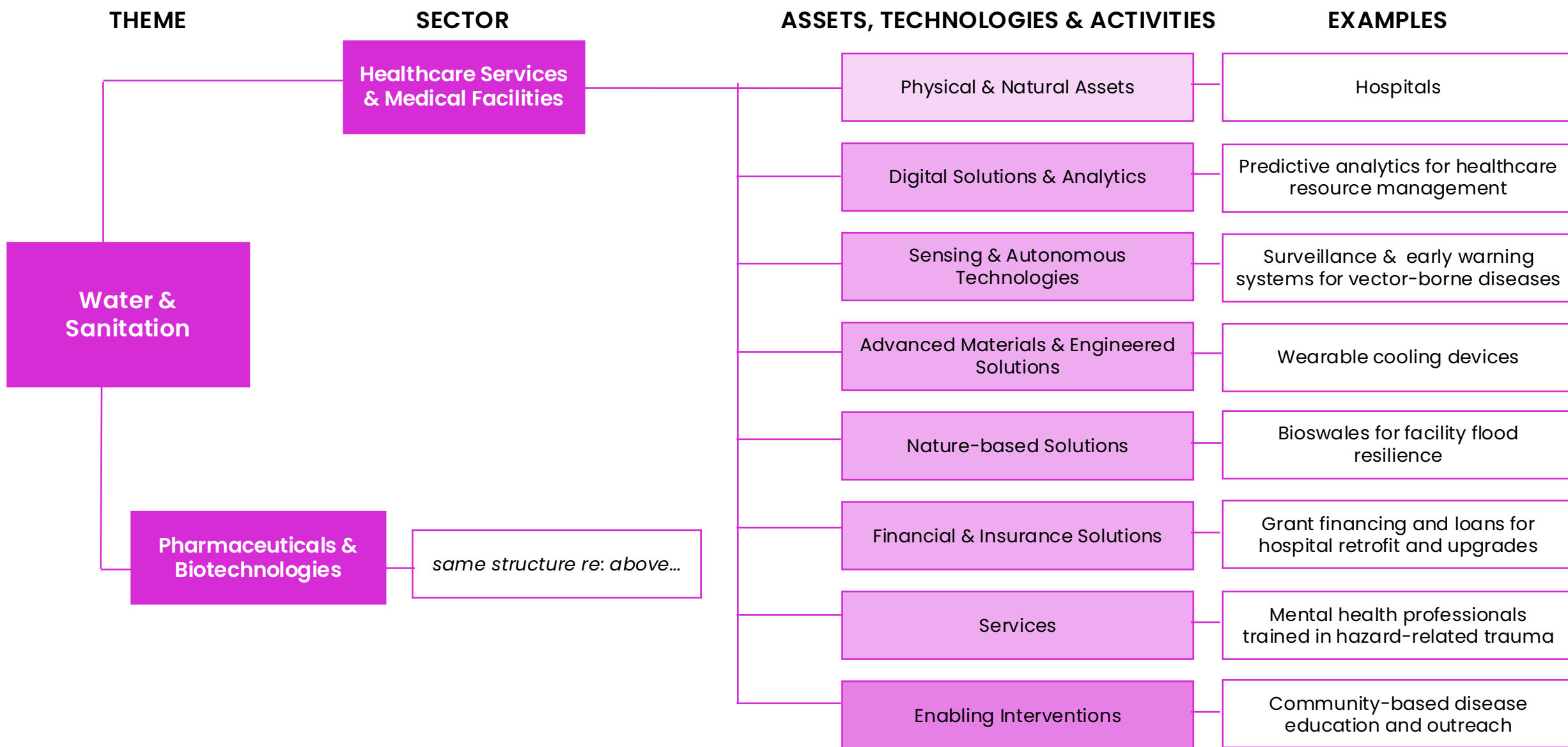
# Theme Highlight: Cities & Communities



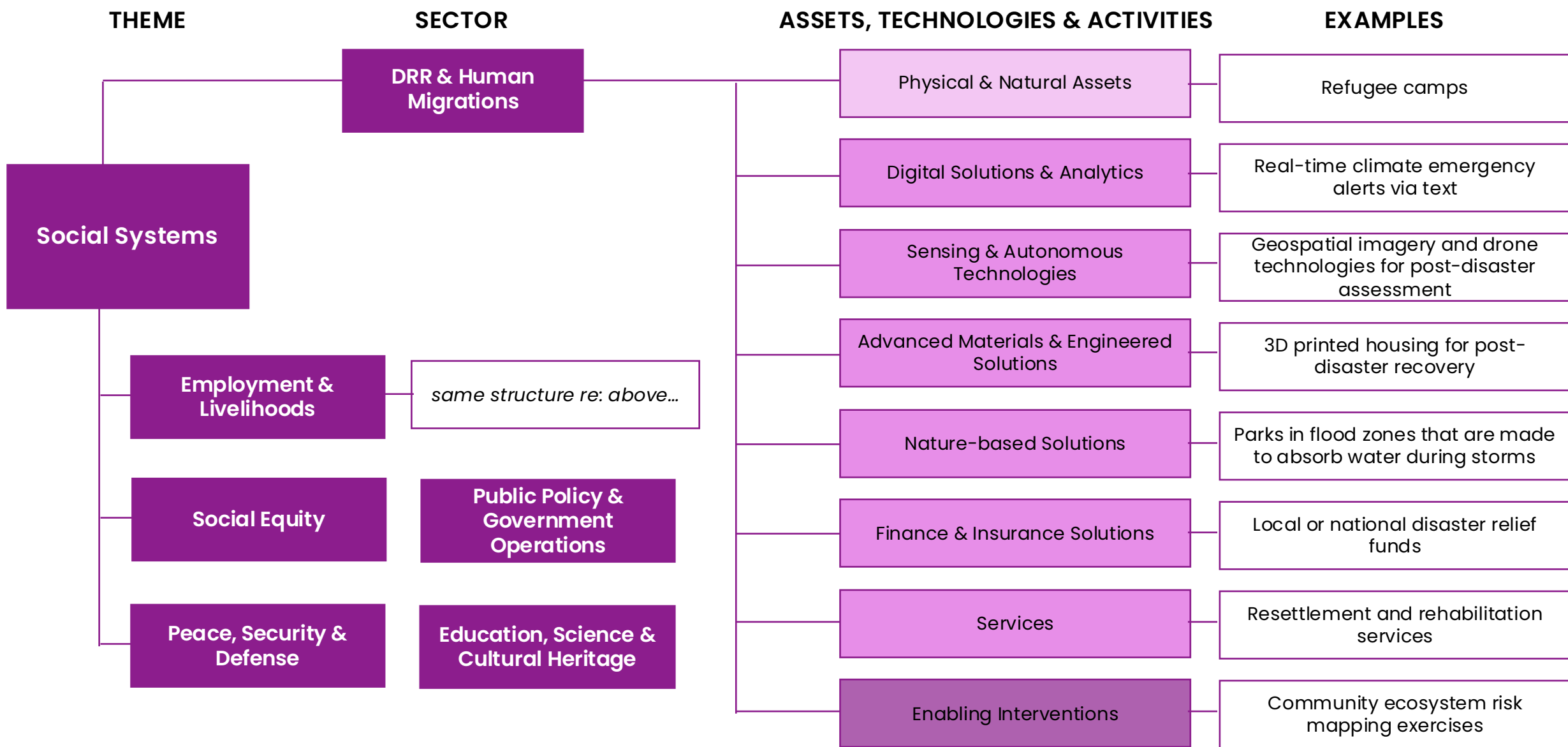
# Theme Highlight: Water & Sanitation



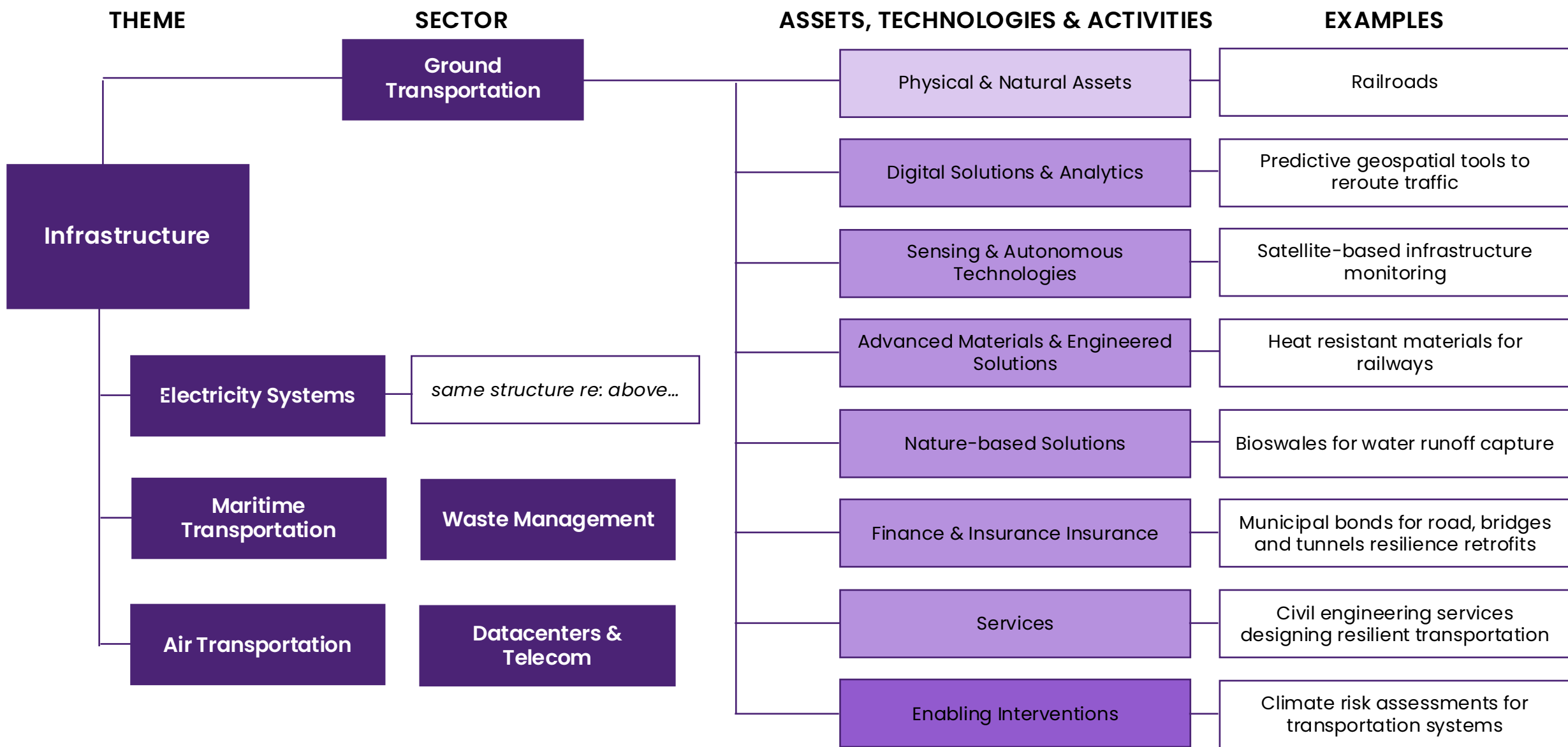
# Theme Highlight: Health



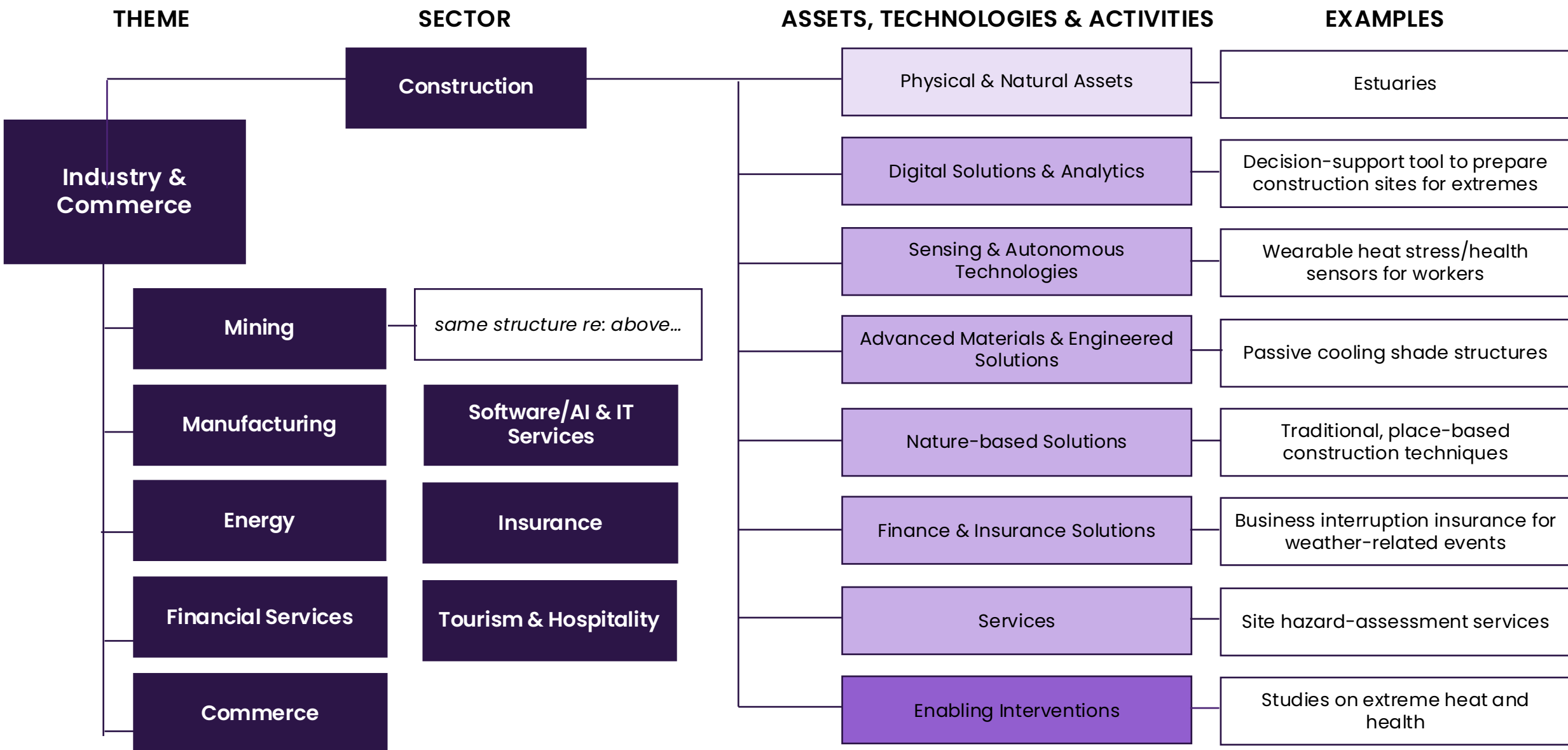
# Theme Highlight: Social Systems



# Theme Highlight: Infrastructure



# Theme Highlight: Industry & Commerce



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