



ADAPTATION PATHWAYS TRAJECTORY

APT NARRATIVES

GENERAL DESCRIPTION

Brief summary of the document

APT A MINIMUM INTERVENTION (MI)

Low investment, low commitment to policy change

APT B ECONOMIC CAPACITY EXPANSION (ECE)

High investment, low commitment to policy change

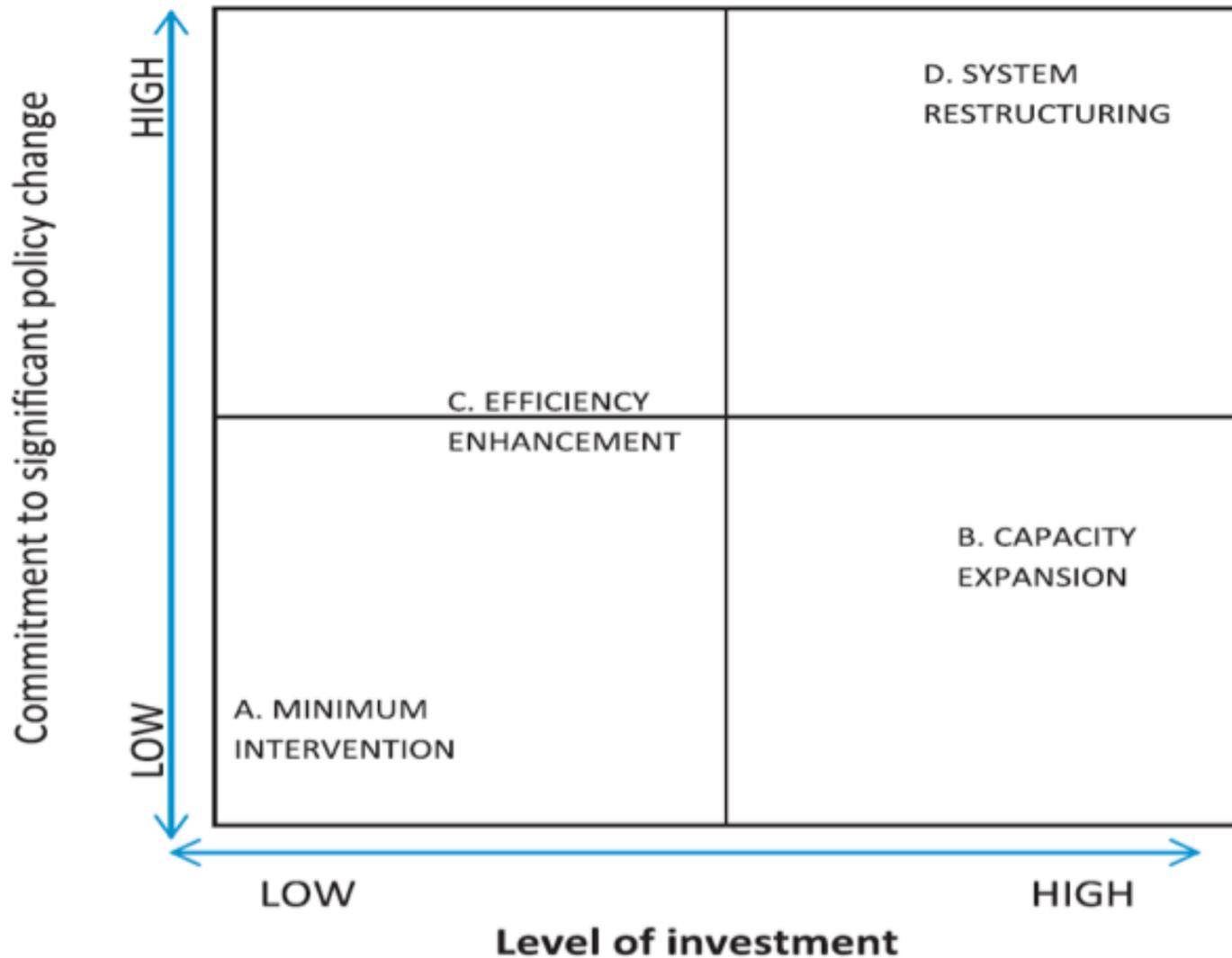
APT C EFFICIENCY ENHANCEMENT (EE)

Medium investment, medium commitment to policy change

APT D SYSTEM RESTRUCTURING (SR)

High investment, high commitment to policy change

GENERAL DESCRIPTION



Adaptation Policy Trajectories are distinct visions (scenarios) of future policy adaptation choices (Kebede et al., 2018). When assessing different alternative directions for adaptation policy and practice, two key limiting variables, or drivers, directly influence decision-making: the level of investment on adaptation, and the extent to which commitment to a significant policy change is required (Suckall et al., 2018)

Therefore, adapting to climate change may range from minimal to high cost, and from requiring a small or incremental change to a significant change from the status quo (Suckall et al., 2018).

The figure to the left depicts these two drivers (level of investment x commitment to policy change) and the respective four quadrants created by their intersection.

Drawing on this four-quadrant categorization, different combinations of level of investment and commitment to policy change were developed for SOCLIMPACT. Each combination represents a distinct Adaptation Policy Trajectory (APT) (Kebede et al., 2018):

- A. Minimum intervention (MI) (low investment/low commitment)
- B. Economical Capacity Expansion (ECE) (high investment/low commitment)
- C. System Efficiency Enhancement (SEE) (medium investment/medium commitment)
- D. System Restructuring (SR) (high investment/high commitment)

Each Adaptation Policy Trajectory (APT) has a specific associated narrative. The objective of using narratives is to provide the scenario context against which stakeholders will develop their Sector Adaptation Pathways during the workshop and encourage thinking about different portfolios of adaptation responses. For SOCLIMPACT these narratives were adapted from Kebede et al. (2018), Suckall et al. (2018) and Hall et al. (2016).

APT A MINIMUM INTERVENTION (MI)

NARRATIVE

This policy trajectory assumes a no-regrets strategy where the lowest cost adaptation policies are pursued to protect citizens from some climate impacts. This APT address those areas where maximum impact can be achieved for the lowest cost. It requires low levels of commitment to policy change and promotes adaptations that require little investment. This APT reflects either a fundamental preference for a non-interventionist local government, or a government lacking ambition or the capacity to act locally. It may also reflect the position of a government that feels that no further action is required locally. In this policy trajectory, there is little planning for climate events, but instead, the government provides basic emergency response when disaster strikes.

The Minimum Intervention APT takes a general approach that reflects historical levels of investment, continue maintenance and incremental change in the performance of the current system.

KEY ELEMENTS

Vulnerability Reduction

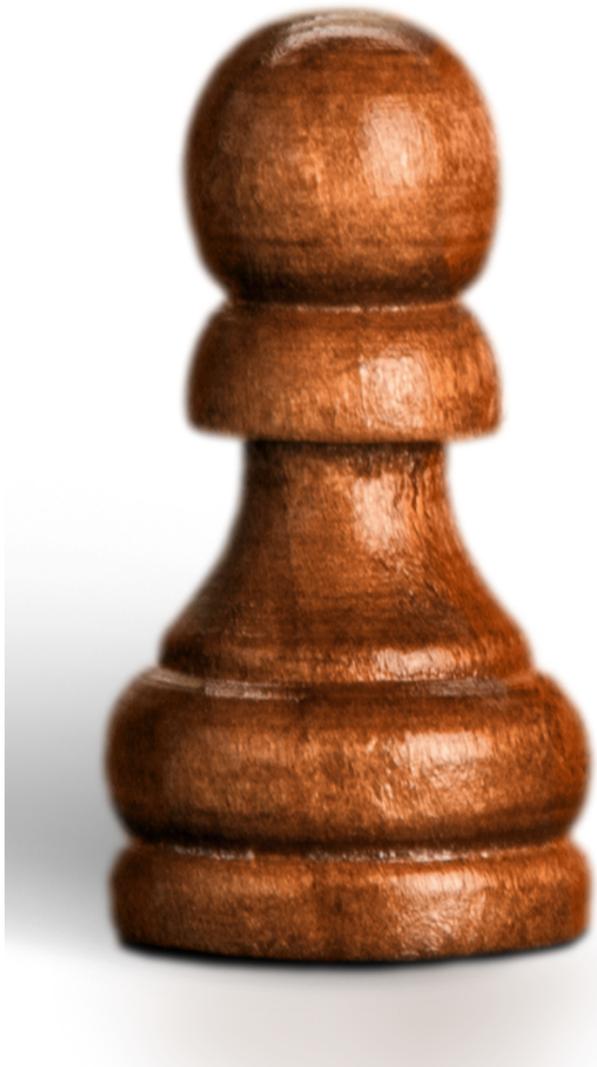
Vulnerability is reduced through investing in human capital. There is little or no investment in other forms of capital. Investment in human capital may include basic training on how to increase income at the household level, such as learning new agricultural or fishing techniques.

Disaster Risk Reduction

Disaster Risk Reduction (DRR) is delivered in three ways. First, through simple measures to address long term risk, such as training populations to use future flooded areas for recreational purposes. Second, through disaster response such as temporary evacuation, emergency responders and the secondment of the army or national resources. Third, basic services are provided during post disaster recovery and rehabilitation, such as post disaster mobile water treatment plants and post disaster house construction for the worst affected households.

Social-Ecological Resilience

Ecosystem resilience is delivered through some basic provisioning services, which are partially supported through training services such as potable water management. There is no support for other ecosystem services.



APT B ECONOMIC CAPACITY EXPANSION (ECE)

NARRATIVE

This policy trajectory focuses primarily on encouraging climate-proof economic growth but does not seek to make significant changes to the current structure of the economy. In this APT a high level of investment is required to prepare the economy for future change, but adaptation policy does not aim to reorient the economy or create significant change. Instead, the focus is on climate proofing industry and enhancing ability to adapt to changes. In this policy trajectory the increased financial capacity is used to protect the economic system from climate-induced harms.

The Economic Capacity Expansion APT focuses on planning for the long-term by increasing investment in infrastructure capacity.

KEY ELEMENTS

Vulnerability Reduction

Vulnerability is reduced by focusing on improving financial capital. This is done at the household level, for example training on post-harvest production and storage, governmental and private insurance schemes. Vulnerability reduction is also done at the government level, for example, by encouraging private sector investment in ecotourism. There is also an emphasis on human capital as the government invests in training that in turn will ensure households are able to better address the impacts of extreme events and on physical capital by ensuring that appropriate infrastructure exists to support economic growth (e.g. roads, storage, rural electricity).

Disaster Risk Reduction

Disaster Risk Reduction (DRR) focuses on easing long term risk through hard and soft measures. For hard DRR, the focus may be on the provision of river/coastal infrastructure to protect economically important areas. For soft DRR, the focus is on preparedness and risk mitigation, for example through agriculture- and fisheries-based insurance schemes. Post disaster recovery efforts focus on getting the economy functioning quickly after disasters and reducing the impact of natural hazards on economic sectors. For example, by rapidly releasing funds to rebuild damaged economic resources such as ports, roads and key stores.

Social-Ecological Resilience

Ecosystem resilience is delivered through investment in provisioning services. This is to enable income from food and water production under future climate change, for example, by using saline tolerant crops. There is also a focus on regulating services, for example, the use of agrochemicals or creation of private sector incentives for tree planting.



APT C EFFICIENCY ENHANCEMENT (EE)

NARRATIVE

This policy direction is based on an ambitious strategy that promotes adaptation consistent with the most efficient management and exploitation of the current system, looking at ways of distributing labour, balancing livelihood choices, and best utilising ecosystem services to enhance livelihoods and wellbeing under climate change. As this APT is about efficiency, it requires less investment than other interventionist approaches (i.e. capacity enhancement and system restructuring). However, there is a reasonable commitment to significant policy change as the system moves toward supporting people to adapt to long term change.

The Efficiency Enhancement APT focuses on deploying the full range of technological and policy interventions to optimise the performance and efficiency of the current system, targeting both supply and demand.

KEY ELEMENTS

Vulnerability Reduction

Vulnerability is reduced by focusing on human and social capital at the household and community level. In terms of human capital, livelihood diversification in farming is promoted as is the teaching of climate resilient farming and post-harvest production methods. In terms of social capital, local farming and fishing cooperatives ensure maximum production benefits. Finally, by improving access to natural capital, for example through fishing permits, households can make the most efficient use of income generating resources.

Disaster Risk Reduction

Disaster Risk Reduction (DRR) is provided through investments in long term risk management using relatively low-cost interventions such as early warning systems and storm shelters, development of building codes for buildings in risk areas, establishment of no build zones and funds to reduce risks to agriculture, such as government run support schemes. Communities are trained to prepare for events through relatively low-cost initiative, such as DRR education at school, evacuation training and stakeholder engagement in DRR plans. There is little emphasis on response or recovery.

Social-Ecological Resilience

Ecosystem resilience is a priority as it supports efficient management and exploitation major natural systems. All four ecosystem services are recognised as contributing to wider system efficiency and all are the focus of government interventions. The focus is on low cost interventions. In terms of provisioning, mixed land use and irrigation are promoted. In terms of regulating, tree planting is the focus. In terms of habitat, biological corridors are created, as are green spaces with native species along waterways. Finally, in terms of cultural services the conservation of wildlife and biodiversity in natural heritage sites and protected areas is promoted.



APT D SYSTEM RESTRUCTURING (SR)

NARRATIVE

This policy direction embraces a pre-emptive fundamental change at every level in order to completely transform the current social-ecological and economic systems and thus changing the social and physical functioning of archipelago/islands sectors. In this APT there is a guiding belief that significant/radical landscape and societal modifications are justified to create long term system restructuring despite the short-term costs that may be accrued, among some social groups or economic sectors. This policy direction focuses on fundamentally restructuring and redesigning the current mode of infrastructure service provision and deploying a combination of targeted centralisation and decentralisation approaches.

Within the System Restructuring APT it is possible to set out three broad examples of policy intervention. Although seeking a different end goal, all these highly transformational and restructuring policies require a high level of investment and a high commitment to significant policy change:

Protect: broadly following the Dutch model with use of extensive protective infrastructure and significant landscape changes to protect the current status quo in terms of livelihoods. Under this policy sub-direction, land and the blue economy sectors are protected from any further change so that communities can continue to maintain business as usual livelihoods.

Accommodate: under this policy sub-direction livelihoods may significantly change in order to 'live with nature' and assume the aspiration to 'work with nature' to adapt to changes to the natural environment.

Retreat: this sub-policy direction means a policy of population and infrastructural relocation, for example, the abandonment of coastal areas at risk by populations and services.

KEY ELEMENTS

Vulnerability Reduction

This policy direction can mean a significant change to the natural system (i.e. protect) or a significant change to livelihoods (i.e. accommodate and/or retreat) to make sure populations are protected from major climate impacts. Vulnerability is reduced by focusing on financial and human capital (accommodate and/or retreat) to which natural capital can be added (in the case of protect). Development and use of open spaces, green belts and other ecologically sensitive areas for farming (protect), promotion of private sector investments in eco-tourism (accommodate) and financial incentives to relocate and pursue other income sources (retreat) are possible examples.

Disaster Risk Reduction

In this policy direction Disaster Risk Reduction (DRR) can focus on managing long term risk (protect and/or accommodate) or in post disaster recovery and rehabilitation (retreat). Example of this policy direction include the creation of dikes to manage flood water (protect), infrastructure that allows people to remain in potentially dangerous locations, such as early warning systems and shelters (accommodate) and government-led reallocation financial schemes (retreat).

Social-Ecological Resilience

This policy direction may target social-ecological resilience by allowing traditionally based agricultural livelihoods to continue or by promoting river course management (protect). Additionally, new habitats may be created as an incidental impact of the policy (accommodate and/or retreat).

