

Benin

Lessons from the formulation of a National Adaptation Plan

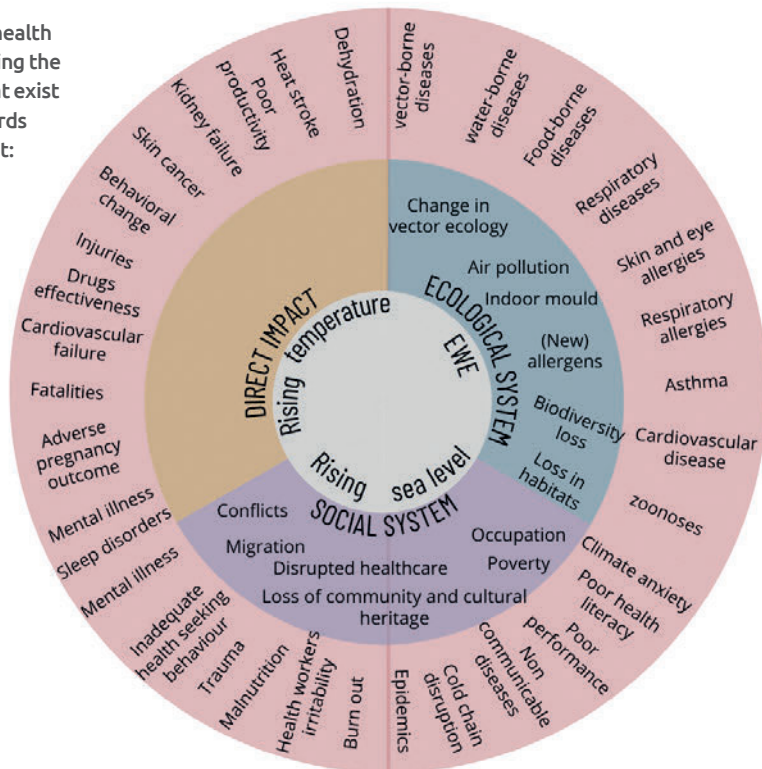
Case study prepared by:
Hashim Hounkpatin

Focus

Benin is in the top quartile of countries most vulnerable to climate change. It has a high risk of flooding (river and urban), water scarcity, extreme heat and wildfire. It has a medium risk of coastal flooding, and some risk of landslides, tsunamis and earthquakes. These geographical hazards are compounded by weak coping mechanisms.

Over the past decades, the country has experienced several extreme climatic events resulting in significant loss of life and impacts on livelihoods and the economy. An historic flood in 2010, for example, covered two-thirds of the territory resulting in major disruption that affected almost a million people. It was the country’s worst flooding event in half a century. But in 2019, Benin experienced yet another devastating flood, with damage estimated at USD 85 million. The impacts of climate change, therefore, are already being felt in Benin, and the projected consequences (Figure 1) give cause for concern (Osse *et al.*, 2019).

Figure 1: The climate health impact wheel illustrating the complex pathways that exist between climate hazards and health risks (Credit: Hashim Hounkpatin)



In May 2022, after ten years of negotiations, Benin released its National Adaptation Plan (NAP) to coordinate responses to climate change risks. Eight sectors were prioritized for adaptation: agriculture, freshwater resources, energy, infrastructures and urban design, tourism, forestry, coastlines and health. The health component of the NAP aimed to protect the population in general, and the most vulnerable people in particular, from climate change threats.

Policy content structure followed the continuum of hazards -> health risks -> adaptation measures -> implementation plans. The direct and indirect climate hazards that were investigated are summarized in Table 1.

	Type	Climate hazards
Direct	Extreme weather events	Heatwaves, heavy precipitation and flooding, windstorms
	Slower phenomenon	Temperature rise, drought, changes in season and precipitation patterns, and sea level rise
Indirect	Through socio-ecological pathways	Forced migration, food security and safety, economic activities perturbation, natural resources degradation, and coastal erosion

Table 1: Climate hazards included in Benin NAP, 2022

After listing potential hazards, the NAP prioritized three hazards in relation to health risks: heatwaves, flooding and drought. The actual health risks arising from these hazards were then identified. These were mainly physical health risks and were included alongside disruption in health service delivery (Table 2). It’s worth noting that mental and social dimensions of health and wellbeing were neglected in the NAP.

	Physical	Mental	Social
Heatwaves	Food alteration and intoxication, heat stress, acute respiratory infection, cardiovascular diseases	-	-
Flooding and drought	Vector-borne diseases (malaria in rainy seasons and meningitis in dry seasons), malnutrition and food-borne diseases, water-borne diseases	-	-

Table 2: Prioritized climate hazards and the associated health risks

The relationship between climate hazards and health risks often involves complex pathways (Figure 1), but in the NAP policy document the pathways are presented as linear. In the past, this over-simplification has indicated policies and adaptation measures that might not address health risks in a systemic way. However, a more systematic approach has been observed with the NAP policy process. Table 3 shows the measures covered in the NAP for the health risks mentioned in Table 2.

Adaptation categories	Measures in the Benin NAP
Policy and planning	Policy, legislative development, climate change mainstreaming in existing and ongoing policies and budgets at all levels
Financing and implementation	Improvement of financing mechanisms and partnerships
Information and capacity building	Early warning systems, monitoring, surveillance, research, capacity building
Citizens' and migrants' resilience	Local adaptation practices reinforcement, social protection, cultural heritage protection, awareness-raising campaigns
Disaster management	Resilient infrastructures

Table 3: Adaptation measures in the Benin NAP, 2022

The overall policy vision in the NAP states that: “by 2030 the country is climate resilient with sufficient adaptive capacity and appropriate mechanisms to anticipate and respond to climate risks, with low-carbon growth, and its institutions, organizations, businesses, and citizens adopt climate-sensitive practices, attitudes, and behaviours.”

Team

The German Ministry of Environment mandated its international co-operation agency to support Benin. The agency provided financial assistance and commissioned Ceped (a multi-disciplinary development organization) and Climate Analytics (a global climate science and policy institute) for technical assistance. Green Climate Fund (GCF) and the United Nations Development Programme (UNDP) provided additional funding. Other actors (e.g. civil society organisations) participated in workshops.

Methods

The goal of the assessment was to analyse the actors involved in the Benin NAP as well as its context, content and process. The NAP itself was used as the main information source. Reports and institutional websites served as additional complementary data sources. The research team used the Walt and Gilson health policy triangle framework (a widely used health policy analysis tool) as it allows policy investigation through the interplay of four dimensions:

1. The context in which policy was developed;
2. The process that led to policy formulation;
3. The actors involved;
4. Policy content.

This case study will mainly focus on the content of the policy.

Results

This case study, undertaken immediately after NAP policy formulation, is intended to be an entry point for further actions to support the country's implementation process. It yielded several results that deserve attention.

1. The vulnerability and adaptation assessment study (V&A) which informed the Benin NAP was inadequate when one applies the World Health Organization's (WHO) quality criteria. WHO recommends a system adaptation whereby countries are ambitious in the coverage of hazards and plan for medium to long-term actions that build on vulnerability and adaptation assessment. This allows synergy within health systems and across sectors and appreciation of potential collateral effects (WHO, 2021). Further, WHO emphasises the critical role of information about specific vulnerable groups for targeted interventions and equity.

The V&A study in Benin, however, focused on one health risk (malaria) and targeted one health district over a short (six-month) timespan (Osse *et al.*, 2019). This may have been due to limited time and financial resources, but such a narrow focus begs questions regarding the validity of the V&A in guiding the NAP. Broader health risks are covered in the NAP, but comprehensive V&A is critical for ensuring policy is evidence-based.

2. There has been limited involvement on the subregional level (i.e. West Africa), which threatens cross-national cooperation. While limited involvement on the sub-national level could challenge policy adoption and implementation.

3. Global governance bodies have a dominant role in adaptation policy making. Organisations such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC) shape policies and actions and hold asymmetric powers over many sub-Saharan African countries, like Benin. In addition, their financial, technical and ideational position informs their approaches – which are not universal and cannot capture every (sub)national reality.
4. Similar to most European countries, the Benin NAP focused on three hazards. But relevant hazards were missing. Ultraviolet (UV) radiation and wildfire were not cited (although the latter was mentioned in the country V&A). Also, the intermediate consequences of included hazards were not covered, for example indoor mould, and increased indoor and outdoor air pollutant concentration.
5. The NAP covered mostly physical health risks. However, its failure to be comprehensive resulted in incidences of cardiovascular, respiratory and neurological impacts from poor air quality, zoonoses, reactions to existing or new allergenic species, and new infectious and vector-borne diseases (ECHO, 2022). Oversights included some risks related to identified climate hazards, such as injuries from extreme weather events, skin cancers due to ultraviolet radiation or diseases from bacteria and algae in bathing water. Such omissions imply that no specific adaptation measure will target these risks.

End-users

The Beninese population, broadly, is the main target, especially those who are most vulnerable.

Lessons learned

Strong political will and commitment were in evidence throughout the process. This enabled institutional arrangements and legislative development that supported policy development. Nevertheless, the challenges are numerous.

Financing

Money is the main barrier to climate action, and resource-constrained countries, like Benin, rely on international funding. To sustain their actions, Benin is advocating for:

1. More funding;
2. Cancellation of historical debt;
3. Reform in international trade.

The other challenge facing Benin is the choice between development imperatives to meet basic human needs and adherence to the expected global fossil fuel phaseout.

Cross-sectorality

There was a clear intent for a single policy document binding the eight prioritised adaptation sectors. However, each sector was able to extract its own, standalone adaptation plan. Also, the NAP fell short at integrating subnational and subregional actors. Neighbouring countries have similar challenges and could leverage economy of scale and learn from each other.

Vulnerability

Each vulnerability factor was approached as if it was unique, per vulnerable individual. But the same people often face multiple vulnerabilities, a phenomenon which must be better considered in policy making and planning.

Learning opportunities, both positive and less positive, are ubiquitous throughout the Benin case study. The planned update of the NAP every five years is an opportunity to integrate lessons learned to enhance its robustness.

Transformative approach to adaptation

“We cannot solve our problems with the same thinking we used when we created them” – Albert Einstein

Climate change is a manifest threat to public health, but it is only one of the current converging crises. Adaptation measures require whole system thinking to address underlying mental models that guide action. Figure 2 shows an iceberg with four layers. The tip represents perceived crises (e.g. climate change, Covid-19, political instability). The next layer represents patterns and trends that might explain the crises (e.g. ecocide, extractivism, hegemony). Next, are the systemic structures that generate these trends (e.g. anthropocentrism, power imbalance, globalisation). Finally, at the bottom, are the mental models – the true root causes of the perceived crises and where the actual crisis resides.

Focusing solely on the tip of the iceberg implies that perceived crises will reappear in different forms and maintain a vicious cycle. We cannot sustainably approach crises without acknowledging the underlying worldview(s) that lead to them in the first place. There is a need to adapt, but also a need to transform.

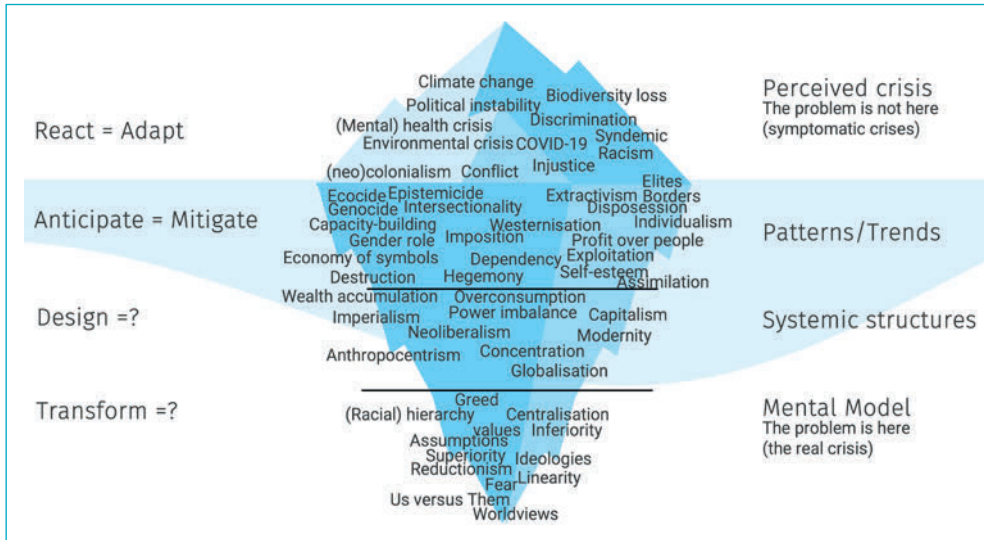


Figure 2: Perception of crisis and crisis of perception, iceberg adapted from Slidesgo and Freepik (Credit: Hashim Hounkpatin)

Acknowledgements

Katja Polman, Claudia Nieto Sanchez, Virginia Castellano Pleguezuelo, Bruno Marchal, Houssynatou Sy, Colombe Soledad, Anke van der Kwaak and Jean-Paul Dossou

Bibliography

- European Climate and Health Observatory (ECHO). Climate change and health: the national policy overview in Europe. Copenhagen. 2022 [cited 2022 Dec 28]. Available from: https://climate-adapt.eea.europa.eu/en/observatory/policy-context/national-policy-analysis-2022/national_policies_adaptation_health_analysis_eea_2022.pdf
- Global Facility for Disaster Reduction and Recovery. Think Hazard – Benin. 2007 [cited 2023 Feb 4]. Available from: <https://int.thinkhazard.org/en/report/29-benin>
- Osse, R., Tokponnon, F., Oke, M., Adjinda, S., and Zounmenou, A. Etude de vulnérabilité sectorielle face aux changements climatiques au Bénin, secteur santé. Cotonou. 2019 [cited 2023 Jan 17]. Available from: www.climateanalytics.org/publications.
- WHO. Quality criteria for health national adaptation plans. Geneva; 2021 [cited 2023 Jun 6]. Available from: <https://www.who.int/publications/i/item/9789240018983>