

# Adaptation preparedness scoreboard:

## Summary for Denmark

### Disclaimer

Based on the scoreboard in Commission Staff Working Document SWD(2018)460 accompanying the evaluation of the EU's strategy for adaptation to climate change. For referencing this Commission analysis from June 2018, please use the full version in the SWD.

### SUMMARY

#### Overall progress

Denmark has had a National Adaptation Strategy (NAS) and National Adaptation Plan (NAP) in place since 2008 and 2012 respectively. All municipalities in the country have developed local adaptation plans to help implement the NAP, and basic supporting legislation and funding have equally been in place for several years. Stakeholders have generally been involved in the development and implementation of policy at different levels. A number of projects, plans, and strategies have been implemented with tangible results, but further funding and strengthened coordination and knowledge sharing, particularly at local and regional level may improve implementation.

#### Adaptation strategies

Denmark adopted a national adaptation strategy in 2008.<sup>1</sup> Although not a formal responsibility of the regions, all Danish regions have incorporated an adaptation element into their regional climate strategies or are working to implement an adaptation strategy. Sectoral strategies have been developed for transport, roads, and coastal protection and adaptation considerations have been widely mainstreamed in planning documents of priority sectors.

#### Adaptation action plans

A National Adaptation Plan was adopted in 2012<sup>2</sup>. All municipalities have developed local adaptation plans. Each plan includes a flood risk mapping and sets priorities for local adaptation measures. However, a 2017 national evaluation found that these plans are uneven in terms of detail and coverage. Several priority sectors have developed action plans, including transport, roads, and coastal protection.

#### Step A: Preparing the ground for adaptation

##### 1 Coordination structure

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<sup>1</sup> Danish Energy Agency (2008). *Danish strategy for adaptation to a changing climate*. URL: [http://www.klimatilpasning.dk/media/5322/klimatilpasningsstrategi\\_uk\\_web.pdf](http://www.klimatilpasning.dk/media/5322/klimatilpasningsstrategi_uk_web.pdf)

<sup>2</sup> Danish Nature Agency, 2012, How to manage cloudburst and rain water. Action plan for a climate-proof Denmark. Task Force for Climate Change Adaptation, URL: [http://en.klimatilpasning.dk/media/590075/action\\_plan.pdf](http://en.klimatilpasning.dk/media/590075/action_plan.pdf)

The overall responsibility for coordinating integration of adaptation into legislation and planning lies with the Environmental Protection Agency within the Ministry of the Environment and Food. Inter-ministerial coordination groups have been used to coordinate adaptation policy across ministries and levels of government. The national government has a mobile team of subject specialists to liaise with municipalities. Two regions have coordination bodies for adaptation policy. The sectoral organisation for municipalities has an adaptation network for specialists.

## **2 Stakeholders' involvement in policy development**

The government held a number of open hearings and consultations in preparing adaptation policies, in line with standard practice for public policy in Denmark. This included a National Dialogue Forum in 2012 with the business community, research institutions and municipalities to suggest practical policies. In 2017 stakeholder consultations took place on coastal adaptation initiatives. Numerous trans-boundary adaptation projects are taking place, in cooperation with the EU and neighbouring countries.

### **Step B: Assessing risks and vulnerabilities to climate change**

## **3 Current and projected climate change**

The Danish Meteorological Institute (DMI) is responsible for observation systems. It is the leading national authority on regional climate projections, and is known globally for regional climate modelling. In 2014 DMI reported on expected climate change in Denmark, focusing on climate change towards the end of this century. The government produced a comprehensive risk and vulnerability assessment in 2012 assessing 14 key sectors. A subsequent detailed risk and vulnerability assessment was prepared for Danish coasts. Transboundary risks are taken into account in these reports.

## **4 Knowledge gaps**

Following the NAS, a Coordination Unit for Research in Climate Change Adaptation (KFT) was established to coordinate all adaptation research. This has subsequently been transferred to a network on climate adaptation research which performs the same function. The Environmental Technology Development and Demonstration Program (MUDP) also supports the development of technology relevant to climate adaptation.

## **5 Knowledge transfer**

A government web portal on adaptation disseminates information targeted to citizens, business, and municipalities. It contains public data and tools to assist public entities, news, reports, examples of best practice, and advice targeted to different stakeholders in Danish and English. The government has used mobile teams of subject experts to help with on-demand capacity building, particularly for municipalities to help develop plans and implement projects.

### **Step C: Identifying adaptation options**

## **6 Adaptation options' identification**

The Danish adaptation risk assessment (2012) addressed fourteen sectors, analysing challenges and opportunities for adaptation. Different tools have been used to analyse adaptation options, including socio-economic & cost-benefit analysis and detailed studies

of individual sectors. The Danish Emergency Management Agency (DEMA) assists in ensuring knowledge about climate change and extreme weather events is taken into account in the risk-based design of local Fire and Rescue Service as well as planning on a local level.

## **7 Funding resources identified and allocated**

Funding for many adaptation projects originates at local level, split between municipalities and water utilities. In the 2018 national budget, money is specifically set aside to support municipalities and property owners develop coastal protection between 2018-21. A number of other national funding schemes exist to fund adaptation related projects and cross-cutting measures. Several EU funded projects are active in Denmark.

### **Step D: Implementing adaptation action**

## **8 Mainstreaming adaptation in planning processes**

The latest EIA law<sup>3</sup> requires adaptation to be considered. Provisions are made in the National Preparedness Plan, which keeps abreast of climate-induced disaster risks by way of the National Risk Profile. Planning laws have been amended, for example, to let municipalities address adaptation directly in local plans, to clarify the role of water utilities, and to designate flood risk zones. Laws on the Water Sector, the Flood protection act, and watercourses act have also been used to implement adaptation, and the Emergency Management Act requires the regular updating of preparedness plans. Insurance companies have incorporated climate adaptation into their products and planning.

## **9 Implementing adaptation**

The NAP presented 64 initiatives: 62 are either planned or implemented; two have been cancelled. All 98 municipalities have adopted adaptation plans as required. Practical implementation has begun but it is uneven. A mobile team is available from the MEF to support implementation at local level. Guidelines are being developed by the mobile team to help municipalities to start the implementation of the climate change adaptation plans. A number of networks exist to support implementation and involve stakeholders (municipalities, regions, universities, companies, NGOs & other civil society organisations) in implementation.

### **Step E: Monitoring and evaluation of adaptation activities**

## **10 Monitoring and reporting**

Currently there is no systematic monitoring and evaluation mechanism using relevant indicators for the NAS or NAP. No systematic monitoring of results of sectoral policies is conducted or disseminated. However, in 2016 the government conducted an evaluation of local adaptation plans.

## **11 Evaluation**

The government will continuously take stock of the progress of the initiatives in the action plan and is expected to assess whether or not a review will be initiated. There is no

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<sup>3</sup> Bekendtgørelse af lov om miljøvurdering af planer og programmer og af konkrete projekter (VVM), Retsinformation.dk, URL: <https://www.retsinformation.dk/Forms/R0710.aspx?id=190145>

systematic involvement of stakeholders in the monitoring, evaluation and review of national adaptation actions.