

Climate change and sustainable development

27.3.2012 lecture by Sirkku Juhola: Europe case: Impacts, costs and adaptation in a changing climate

Pre-reading material: Biesbroek, G.R., Swart, R.J., Carter T.R. etc. 2010. Europe adapts to climate change: Comparing National Adaptation Strategies. *Global Environmental Change* 20:440-450

Today's lecture focused on adaptation to climate change from EU-level to national, regional and local level.

There are two approaches to reacting to climate change: mitigation or adaptation. Both are needed, since mitigation measures are not enough to stop climate change. Adaptation in this context refers to planned adaptation to climate change and the purpose is to reduce risks and even capitalize on the opportunities presented by climate change. The motives behind creating adaptation strategies are diverse. The need for action was brought to attention after certain extreme events (e.g. heat wave in Paris in 2003, flooding in Helsinki in 2005). There were also new research reports supporting the idea and the economic situation was good. According to Biesbroek no clear common motive within the EU can be identified, but water resources are often a concern. In addition to aiming to secure water availability, food, disease control and biodiversity management (mainly in Northern Europe) are mentioned. Juhola pointed out that today there is a rising skepticism in climate science and the recession means that climate change is not a priority.

One of the problems of adaptation is that governance works in so many levels. The EU seems to be a late actor in adaptation. Today, the majority of EU countries have a NAS (National Adaptation Strategy) or are producing one. Juhola introduced some different strategies briefly, and they differ in approach, focus and implementation. This is only natural because some countries are more vulnerable than others and can have different motives for creating a NAS. The three levels of adaptation were also introduced: policy concern, recommendation and measure. It was interesting to see that Finland was one of the leading countries in recommendations – telling what should be done – but was lagging in concerns and measures. It is of course fine to be the first EU country to produce a strategy, but measures would also be useful if you are trying to be successful in the adaptation...

A NAS may be important, but it is also important to work regionally. Some RAS have emerged; for example Helsinki has got one. The problem with these strategies is that they may not always be based on high quality information and often actual measures are not included. I guess a lack of

resources can also be an issue, and it certainly is one at the local level. Juhola also pointed out that the short election cycles can hinder long-term processes like adaptation and that there can be many other priorities, like getting revenue. In the short term it might be advantageous (economically) to build by the sea, but in the long term adaptation might mean moving people inland because of a rising sea-level.

One of the problems when talking about climate change is surely the uncertainty of what will really happen and in what scale, the difficulty of making a prediction. Do the adaptation strategies take into account uncertainty? If adaptation measures are taken when the information behind the strategy is of low quality, there can be a lot of negative surprises later on. As there are limited funds, it would be important to allocate the resources optimally and not for example focus on "lost causes".

The scenario workshop was interesting and revealed how difficult it is to try to find an adaptation strategy that will take into account all the stakeholders and their wishes.