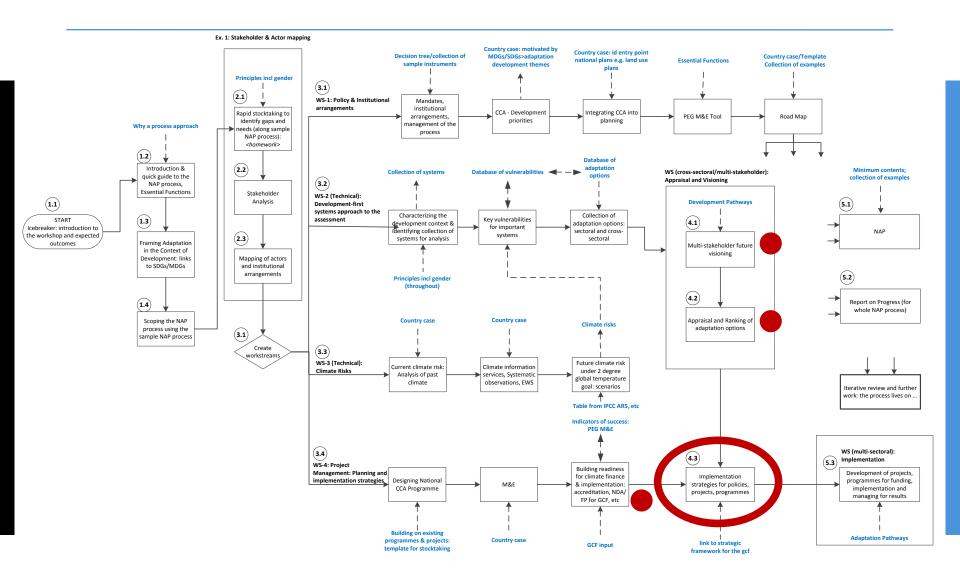
Implementation strategies: adaptation pathways

LEG regional training workshop on national adaptation plans (NAPs) for Asian countries

10-14 August, 2015, Yangon, Myanmar







Setting

- Visioning exercise and how some key drivers may become critical in future and force a change in approach
- Identified adaptation options and prioritization
- Readiness for implementation
- Concept of adaptation pathways can be used to explore options



- Not led by the IPCC
 - a) International Committee On New Integrated Climate change assessment Scenarios
 - b) http://www2.cgd.ucar.edu/research/iconics
- Emission pathways (Representative Concentration Pathways or RCPs) developed for AR5; resulting climate change assessed in WGI
 - a) RCPs include just forcing/concentration/emissions/land use information and NOT underlying storylines and quantitative drivers
- Shared Socioeconomic Pathways (SSPs) developed based on insight that multiple reference socioeconomic pathways can lead to the same emissions pathway

From: Kristie Ebi, March 2015



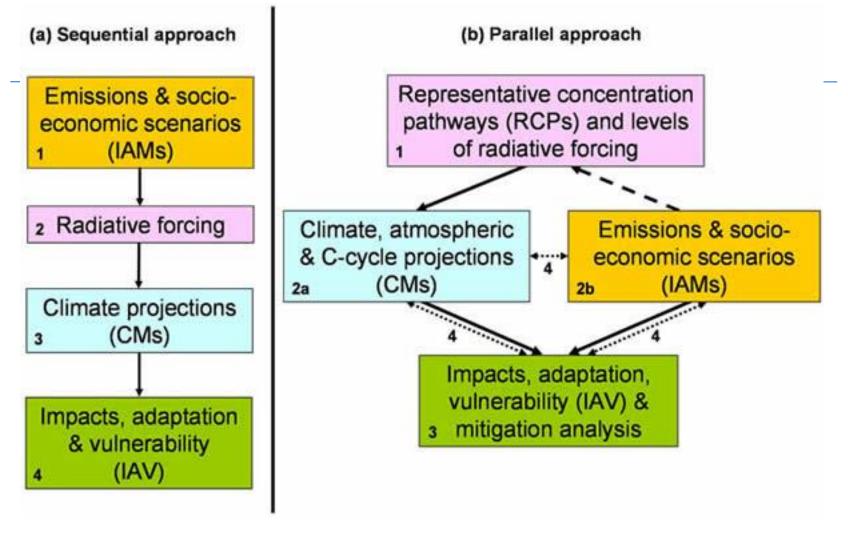
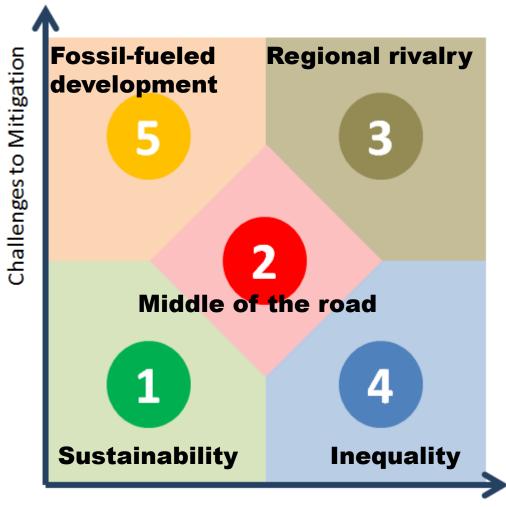


Figure 1. Approaches to the development of global scenarios: (a) previous sequential approach; (b) proposed parallel approach. Numbers indicate analytical steps (2a and 2b proceed concurrently). Arrows indicate transfers of information (solid), selection of RCPs (dashed), and integration of information and feedbacks (dotted). Source: Moss et al. (2008).





Challenges to Adaptation

O'Neill et al. 2014



Increasing risk level (e.g. households at risk of flooding) **Existing system** Strategy change due to limited Strategy change usefulness of triggered by risk Promote flood current approach **Protect existing** protection devices level households Subsidise flood protection devices Some strategies may require Maintenance & Improve drain lengthy 'run-up' planning & maintenance small capital implementation periods projects which need to be taken into Improve drainage capacity account Increase capacity of current flood defences **Major capital** projects **Build new flood defences** Abandon & relocate Legislate against any building in risk areas Regulatory Strengthen planning guidelines Raise building standards Incentivise small scale natural flood management Sustainable land use strategy Impose large scale natural flood management

Figure 5 An example of how national level strategies for managing flood risk could involve multiple flexible pathways (actions and policies included in the diagram, along with relative lengths of effectiveness are for illustrative purposes only).

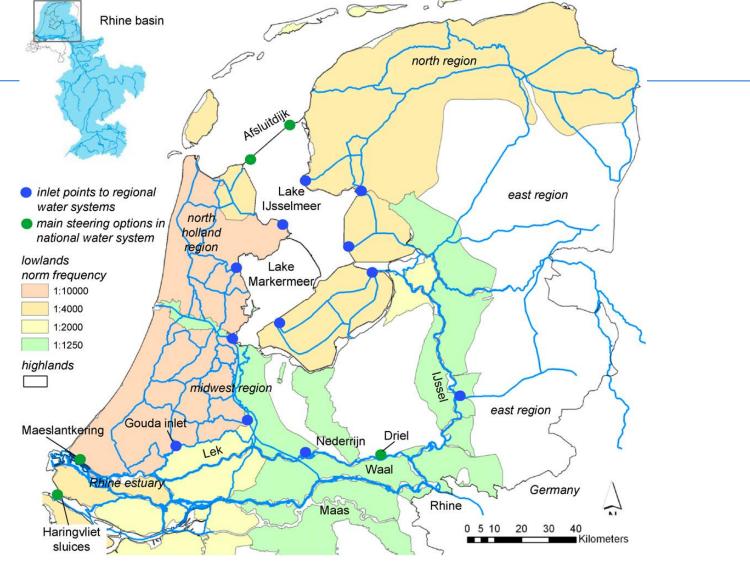


Flexible Adaptation Pathways

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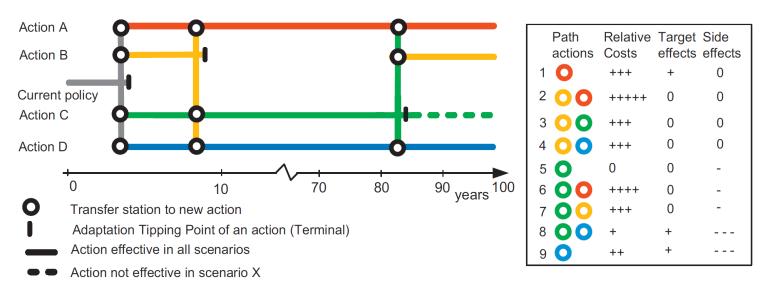
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Haasnoot, M., Kwakkel, J. H., Walker, W. E., & Maat, ter, J. (2013). Dynamic adaptive policy pathways: A method for crafting robust decisions for a deeply uncertain world. Global Environmental Change, 1–14. http://doi.org/10.1016/j.gloenvcha.2012.12.006





Adaptation Pathways Map

Scorecard pathways

Fig. 2. An example of an Adaptation Pathways map (left) and a scorecard presenting the costs and benefits of the 9 possible pathways presented in the map. In the map, starting from the current situation, targets begin to be missed after four years. Following the gray lines of the current policy, one can see that there are four options. Actions A and D should be able to achieve the targets for the next 100 years in all climate scenarios. If Action B is chosen after the first four years, a tipping point is reached within about five years; a shift to one of the other three actions will then be needed to achieve the targets (follow the orange lines). If Action C is chosen after the first four years, a shift to Action A, B, or D will be needed in the case of Scenario X (follow the solid green lines). In all other scenarios, the targets will be achieved for the next 100 years (the dashed green line). The colors in the scorecard refer the actions A (red) B (orange) C (green) and D (blue).



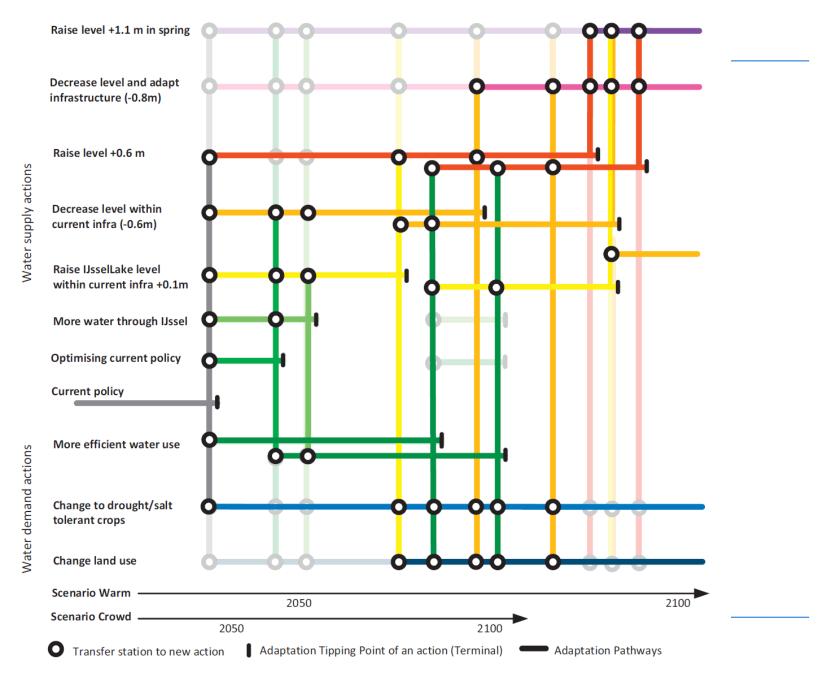


Fig. 6. Adaptation pathways map for fresh water supply from the IJsselmeer area.





Fig. 7. Adaptation pathways map with preferred pathways for three different perspectives.

United Nations Framework Convention on Climate Change

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