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## Complexity – what’s the fuss?

In our work in international development we face different kinds of problems. Some are relatively easy to solve, and others have proved difficult to tackle. Many problems persist even when we believe we have solved them. Particularly social problems such as poverty, unemployment, inequality, violence, etc. seem to persist without a solution in sight.

So far, most development problems have been approached with the same mind-set. Approaches are guided by an understanding of linear, controllable and

measurable cause-and-effect relationships. Experts confidently present their solutions with a logic of “if we only do this, then that happens and the problem is solved”. For every expert, the solution usually lies in his or her field of expertise. Inputs and activities are transformed into outputs and outcomes in a seemingly predictable way with very specific indicators that typically only measure very narrow results. Outcomes are then measured, attributed back to the project, and the “evidence” is used to inform future programme design or policy choices. This approach has a lot of validity if





applied to the simpler type of problems; however, this logic cannot be generalised to apply to all situations.

The problems that can be tackled with an outcomes-based planning approach are problems where cause-and-effect relations, and hence solutions to problems, are either obvious or discoverable through analysis. If, for example, crop yields in a particular region are low, agricultural experts can develop strategies to overcome this problem by introducing new varieties or analysing soil composition to recommend the correct fertilizer

application. Outcomes can be defined and targets can be set as we can predict with some accuracy what increase in yield can be expected. The change – increased production – can be measured and clearly attributed to the intervention.

There are, however, also situations where there is little agreement on the problem in the first place and high uncertainty of what solution will lead to what result. A situation can be described as being complex when multiple hypotheses could explain in a coherent way

what is going on. Looking again at the example of increasing agricultural productivity, the way to sustain the new agricultural practices, bring the products to market, and translate higher productivity into higher incomes, is not so obvious. Even when asking experts we will get a multitude of opinions and perhaps even contradicting advice. The problem is complex. There are many possible routes to take, and all seem to hold some promise. Many different actors with different perspectives are involved. We cannot predict with certainty what will happen. Reactions to interventions might be disproportional to the input or they might be negligible. It is difficult or

even impossible to relate observed changes back to the interventions, and hence attribute improvements to the project. In these situations, an outcomes-based planning approach is not effective. Outcomes cannot be defined in advance as we don't know what a good outcome would look like and how we can get there. We need an approach that is better adapted to the situation.

The ability to distinguish between the different types of problems allows us to select an appropriate and adapted strategy. There are a variety of approaches that support us in appraising the situation and selecting the best strategy for different aspects of a problem. At Mesopartner, we have been increasingly using the Cynefin framework for this purpose.<sup>1</sup> Cynefin is a framework that can be used in a participatory way to make sense of a situation.

Cynefin has five domains:

- **The obvious domain: the domain of best practice.** This domain is characterised by clear and stable cause-and-effect relationships that are evident to everyone. The right answer is obvious and undisputed.
- **The complicated domain: the domain of experts.** In complicated contexts, there might be more than one right answer. Although cause-and-effect relationships are clear, they are often not evident. Hence analysis and expertise are needed to approach such situations. Outcomes-based planning works well here.

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<sup>1</sup> The Cynefin framework was developed by Dave Snowden of Cognitive Edge (<http://cognitive-edge.com>)





- **The complex domain: the domain of emergence.** In complex situations, the right answers have to emerge from within the context. Complex systems are in constant flow, and instead of attempting to impose a course of action, project interventions must try different things and allow the path forward to reveal itself. Rigid outcomes-based planning does not work in this domain.
- **The chaotic domain: the domain of rapid response.** Chaotic situations are marked by great turbulences cause-and-effect relationships are impossible to determine, and no manageable patterns exist. Interventions need to be fast and decisive and need to establish some kind of order.
- **Disorder.** The fifth domain of Cynefin, the disordered domain in the centre, essentially contains all situations where there is disagreement or ignorance as to whether the context is obvious, complicated, complex or chaotic.

Examples from the complicated and the complex domains are the technological fix for low productivity and the translation of these fixes into sustainable poverty-reduction outcomes respectively.

Although the Cynefin framework can be used for categorisation, it is most effective as a sense-making model to support people in making sense of their own situation. This starts by collecting data fragments about a given situation, e.g. decisions taken in the past or short narratives of situations taken from a project or an organisation. The Cynefin framework can then be constructed around these fragments. In this way, the domains and the borders between the domains are constituted by situations that people can refer to. Consequently it will be easier for this group of people to relate any new situation to one of the domains by comparing it with the situations used to build the framework.

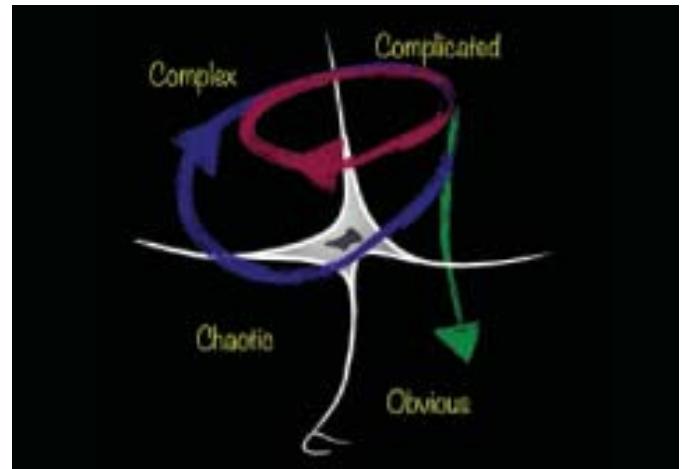


Figure 1: The Cynefin Framework showing the five domains (disorder is the grey domain in the middle). The arrows show possible movements of a situation between the domains (Source: Cognitive Edge)

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