

egrated Sustainability Assessment / Transition Management (IS

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Transition Management

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1 Introduction

Transition management (TM) attempts to overcome the conflict between long-term and short-term thinking by placing the short-term policy in the light of the long-term ambitions in a structured way. Based on long-term transition goals, intermediate aims can be formulated for the mid- and short-term. It is important to investigate whether developments in other domains and different scale levels signify opportunities or threats to the realisation of a transition and what the role and the position of the various actors are in this.

The ‘Transitional Action Perspective’ is based on a different, more process-orientated philosophy that balances coherence with uncertainty and complexity. It can be summarized in terms of the following characteristics (Rotmans, Kemp, and van Asselt 2001; Rotmans et al. 2000):

- Long-term thinking (at least 25 years) as a framework for shaping short-term policy
- Thinking in terms of more than one domain (multi-domain) and different actors (multi-actor) at different scale levels (multi-level)
- A focus on learning and a special learning philosophy (learning-by-doing and doing by-learning)
- Trying to bring about system innovation alongside system improvement
- Keeping a large number of options open (wide playing field).

So far, only a few comprehensive studies have been undertaken to assess ongoing transitions and the room for transition management. Thus the aim of the research community is to further the understanding of the transition process as well as the application of transition management over the coming years. This means that ongoing transition-processes will have to be monitored and evaluated.

2 Methodology

Transition management is aimed at exploring, guiding and fostering a long-term social transformation process. In order to do this, it is necessary to develop an over-all vision for the transition together with the relevant actors. Transition management, therefore, implies *interactive policy development* and requires participation of different stakeholders throughout the process. Such a transition-vision sketches the ambitions in terms of qualitative images. It is not a point-goal, but rather an interval (*corridor approach*) for a range of variables. A transition-vision, therefore, encompasses different goals and options (Rotmans et al. 2001).

The various transition management steps are ultimately determined through a collective learning process of development rounds, but the basic stages are outlined below:

Transition sustainability vision

The transition objective is an important element of transition management but does not have to be set in stone. Comprising as it does a multitude of policy and actor aims, it is multi-dimensional and should not be defined in a narrowly technological sense. More about sketching ambitions than setting objectives, it is subject to re-evaluation and re-adjustment. Policy in areas of health protection and the environment, for example, has traditionally been based on quantitative standards derived from studies of social risk, adjusted for political expediency. However, for complex, multi-scale problems, such as climate change or sustainable development, the associated risks cannot easily be expressed in fixed, purely quantitative objectives.

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Therefore, risk-based target-setting is doomed to fail in such areas. A transition vision is therefore first and foremost a societal ambition and can be considered as the sustainability criteria for a specific societal system. It applies more flexible, semi-quantitative or qualitative objectives.

Transition images

Transition management is based on a long-term vision and inspiring target images, which function as a framework for formulating short-term objectives and evaluating existing policy. If these images are to adumbrate transitional pathways, they must be appealing and imaginative and be supported by a broad range of actors. Inspiring final images are useful for mobilizing social actors ('putting a man on the moon', for instance, or 'underground transport', 'the hydrogen economy'), although they should also be realistic about innovation levels within the social subsystem in question.

The 'basket' of final images can be adjusted as a result of what has been learned by the players in the various transition experiments. The participatory transition process is a goal-seeking process, where both the transition goals and images change over time.

This differs from so-called 'blueprint' thinking, which operates from a fixed notion of final goals and corresponding visions.

Interim objectives

In transition management 'interim objectives' are derived from the long-term objectives (so-called 'backcasting'), and contain qualitative as well as semi-quantitative measures. In other words, the interim transition objectives contain 'content' objectives, 'process' objectives (quality of the transition process, perspectives and behavior of the actors concerned, unexpected developments) and 'learning' objectives (what has been learned from the experiments carried out, have more options been kept open, re-adjusting options and learning objectives).

Evaluating and learning

Transition management involves the use of so-called 'development rounds', where what has been achieved in terms of content, process dynamics and knowledge is evaluated. The actors who take part in the transition process evaluate in each interim round the set interim transition objectives, the transition process itself and the transition experiments. Firstly, the set interim objectives are evaluated to see whether they have been achieved; if this is not the case, they are analysed to see why not. Have there been any unexpected social developments or external factors which were not taken into account? Have the actors involved not complied with the agreements that were made?

The second aspect of the evaluation concerns the transition process itself. The set-up and implementation of the transition process is put under the microscope. How do the actors concerned experience the participation process? Is it dominated by certain parties (vested interests)? Is it too consensual (cosy), or is there too little commitment? Are there other actors who should be involved in the transition process? Are there other forms of participation which must be tried out?

The final issue for evaluation is the amount of learning or 'enrichment' that has taken place in the previous

period. A special point of attention is what has been learned from the experiments carried out to stimulate the transition. What have been the most important learning moments and experiences? Have these led to new knowledge and new circumstances? This last aspect, in particular, is important in development rounds: 'What have we learned and obtained, and how do we continue from there?' (Kemp 2003).

3 Process

Based on (1) the short-term aims, (2) the analysis of opportunities and threats, (3) the actor analysis and (4) the interaction between developments at different scale levels, it should be determined which actions and instruments are necessary and appear to be effective for transition management. In this way, the idea of transition-thinking can also be used to interpret and apply the current policy in a different light. For problems related to sustainable development, current policy should not be means to achieve a target, or solve a certain problem in 1–5 years. Within the perspective of a transition, it aims to serve a certain development trajectory.

4 Review

4.1

Evaluation results

Since transition management is an assessment framework (not a tool), it can not be scored and linked to the 12 priorities for sustainable development for the EU, in terms of suitability. It can form the framework around a combination of tools, and therefore it is suitable to research and stimulate sustainable development.

4.2 Experiences

Much of the academic and policy activity promoting the development of a transition management approach has taken place in the Netherlands (although it draws on conceptual and empirical inputs which are far broader). Here, the conjunction of a sophisticated, but pragmatic interdisciplinary community of practitioners in the field of technology studies, an established tradition of collaborative cross-institutional engagement in innovation systems and a strong national policy agenda prioritizing environmental sustainability have provided fertile conditions for the growth of the transition management approach. As a result, transition management is promoted in the Netherlands as a policy alternative to both hands-off, market-driven technological change and to more classical technology policy approaches (Berkhout et al. 2003)

Transition management is still a fairly new concept and therefore implementation of theory into practice is only now being explored. Some areas where the transition management theory has begun to be applied include examination of the energy transition in the Netherlands (Dutch Ministry of Economic Affairs 2004).

4.3 Combinations

Transition management provides is an *assessment framework* through which other tools can be applied. The overall framework as described in the Integration and Synthesis report (Ridder, 2006) and in particular the table with tools roles, shows which tools could be used in the different phases of a transition management based assessment. As mentioned earlier transition management implies *interactive policy development* and requires participation of different stakeholders throughout its process.

4.4 Strengths and weaknesses

Strengths

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Transition management should be seen as complementing rather than conflicting with current policy, bringing added value by placing it in a more long-term perspective. It is a proactive, anticipatory strategy that is particularly sensitive to grassroots innovation.

The concept of transition also places short-term policy within a time frame of more than one generations (25+ yrs) rather than the maximum of 5–10 years which is typical of current policy.

Transition management is useful where changes and improvements alone have insufficient effect, and more fundamental change is needed. An example is the case of energy supply. There is growing awareness that in the long-term a structural change in the energy supply is inevitable, since many global environmental problems are energy related. Furthermore, an energy-intensive country is very vulnerable if it depends on just one type of fuel and the current political instability concerning the gasoline prices also shows that it is important to develop a long-term vision of energy management from the point of view of social stability. To do nothing means you let 'time' decide and is therefore not an inconsequential act (Rotmans et al. 2001).

Weaknesses

Since the theory as well as the operational model is still young, practical experience with it is very limited. Though the concepts are rationally sound and coherent, it has not been proven to function effectively in practice. Furthermore, as the tool applies to steering processes of more than 25 years, a practical evaluation takes many years to conduct.

Another current weak spot of TM is its integration with current policy. At the moment the transition approach in the Netherlands and current energy policy appear to be two separate lines of policy. Current policy is geared towards meeting fixed goals by 2010, while the energy transition is also (i.e. mostly) focusing on the period that follows. On the other hand the results of the transition approach are influencing choices that are being made in current policy. The challenge for the years ahead is to further integrate these lines of policy.

4.5 Further work

It is necessary to examine how effective TM is in practice according to applications, examples and experiments that have been done so far or that are still running. The aim would be to see if it is possible to be able to identify more easily which systems or situations TM can be applied and for which it is (not) a worthwhile tool.

Secondly, the above mentioned challenge to well integrate transition management activities with current policy initiatives will require attention. How can short term issues and policies be seen in longer term perspective? Clearly, this is an ambitious endeavor.

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