



Drifting between transitions Lessons from the environmental transition around the river Acheloos Diversion project in Greece



Niki Frantzeskaki ^{a,*}, Wil Thissen ^b, John Grin ^c

^a Dutch Research Institute For Transitions, Erasmus University Rotterdam, The Netherlands

^b Policy Analysis Section, Faculty of Technology Policy and Management, Delft University of Technology, The Netherlands

^c Department of Political Science, University of Amsterdam, The Netherlands

ARTICLE INFO

Article history:

Received 13 October 2013

Received in revised form 7 June 2015

Accepted 7 September 2015

Available online 20 October 2015

Keywords:

Drivers

Transitions

Crises

Water institutions

Policy regimes

Social-ecological transformation

Spillover effect

Greece

ABSTRACT

Systems can experience different types of transitions. The existing literature on transitions distinguishes socio-technological, social-ecological and institutional transitions that each focus on different aspects of real-life systems. For every one of these types of transitions we have identified a common set of forces that co-shape and drive the transition. Building on previous work and based on an in-depth empirical analysis, we investigate the complex dynamics of transitions in terms of how changes in different societal subsystems may unravel and trigger each other. We start with a conceptual scheme that captures the main characteristics of socio-technological, social-ecological and institutional transitions as discussed in the respective literatures. We then employ a case study on the emergence of a *transition* in the *environmental protection regime in Greece* (for the period of 1986 until early 2000s) in the face of a river diversion project. Following a socio-ecological transition, the river Acheloos case went through a transition involving five co-evolving and competing regimes: the environmental protection policy regime, the energy policy regime, the water management policy regime, the Acheloos river restoration interest regime, and the Acheloos diversion interest regime. The environmental protection transition in Greece was (and remains) a battlefield for both supporters and opponents of the Acheloos Diversion Project. We analyze how the dynamics of socio-ecological and institutional transitions have affected each other, and we identified three transition drifts that signal how transformation unfolds: change transcends across subsystems and regimes, problem framings shift over time and some driving forces tip multiple subsystems creating spillover effects.

© 2015 Elsevier Inc. All rights reserved.

1. Introduction

Various literatures have discussed what is considered as particular types of transitions: institutional transitions (in which formal institutions transform radically), socio-ecological transitions (coherent and interacting changes in formal institutions, informal ones and the ecosystem) and socio-technical transitions (coherent and interacting changes in formal institutions, informal ones and technology). Each of these bodies of literature adds important insight into the dynamics of these specific types of transitions (Frantzeskaki, 2011).

Yet, when we wish to synthesize the findings from studies from these respective transitions to further develop our theoretical understanding of

transition dynamics we have to face the question whether real-world transitions may at all be distinguished into these different types. At the basis of this paper is the recognition, a priori, that most transitions will involve dynamics of all of these types. This is at least plausible if we adopt the viewpoint that transitions involve changes in interconnected physical flows and societal practices, as well as the structures in which these are embedded (Grin et al., 2010; Farla et al., 2012). Thus seen, the types of transitions discussed here may be better seen as specific dimensions of transitions. We hypothesize that during specific transition episodes one or another dimension may be contributing most to overall transition dynamics. Drawing on a case study, we seek to explore how each of these episodes is driven by the forces pertaining to that dimension, and produces dynamics that after some time may trigger one or several other transition episodes, where a different dimension dominates.

1.1. Research question and objectives

Against this background, our research question is: *To what extent and how can distinguishing the different dimensions of transitions aid*

Abbreviations: ADP, Acheloos Diversion Project; ARR, Acheloos River Restoration; EIA, Environmental Impact Assessment; NGOs, Non-Governmental Organizations; SSC, Supreme State Court.

* Corresponding author.

E-mail addresses: frantzeskaki@fsw.eur.nl (N. Frantzeskaki), w.a.h.thissen@tudelft.nl (W. Thissen), j.grin@uva.nl (J. Grin).

our understanding of the complex dynamics of transitions? Our hope is that, by answering this question, we may be able to mobilize the findings of different literatures and integrate them in a more integral, comprehensive understanding of transition dynamics.

In addition to this academic objective, understanding the interdependencies of social sub-systems as they relate to different episodes of transitions will better inform policy action to deal with deeply rooted unsustainability problems. In particular, it may help to avoid that addressing one aspect of a policy problem, may trigger dynamics in other dimensions that yield novel problems regarding other aspects. Understanding how such transformational drifts take place will inform governance and policy in enabling and accelerating sustainability transitions.

We will answer our central research question by subsequently answering the following sub-questions:

- How may literatures on institutional, socio-ecological and socio-technical transitions be conceptually understood as explaining specific episodes of transitions, and what do they contribute to our understanding of transition dynamics? This research sub-question is addressed in [Section 2](#).
- What does the case of the Acheloos River suggest on how these different literatures may be synthesized in understanding how different episodes unfold and trigger each other? This research sub-question is addressed in [Section 3](#).
- What is the upshot of our analysis both for further academic research and for the governance of transitions? This research sub-question is addressed in [Section 4](#).

1.2. Research methodology

We use a single case study approach to gain insights into transition dynamics and to test our conceptual models adopting the instrumental case study approach of [Stake \(2000, p. 437–438\)](#). Our case study included mixed methods and specifically three data acquisition and validation methods: desk research, field research (in-person semi-structured interviews and phone-interviews) and expert consultations.

More specifically, desk research on the design process of environmental protection legislation and the organization of environmental protection institutions ([Frantzeskaki, 2011](#)) was carried out using diverse sources of data and information such as journal articles, communication letters for legislation adjustment, press releases and governmental documents obtained from historical archives and legislation databases as well as given by the interviewees. The case has been based on data found in published studies on the Acheloos diversion project (henceforth referred to as ADP) in articles, in the national law and ministerial decisions, and in websites of the Greek environmental non-governmental organizations (NGOs). The gray literature sources cover the time period from 1950 until 2011. The field research included interviewing of key actors. Four representatives from environmental NGOs (Elliniki Ornithologiki Etaireia, Greenpeace Hellas, and WWF) were interviewed, and provided information and suggested information routes. Twelve interviewees holding positions at strategic programs' formulation offices (5) and policy development and implementation offices (7) of the Greek Ministries of Environment, Economic Development and Internal Affairs were interviewed in 2009 and in 2011. The anonymity of the interviewees has been preserved throughout the case study analysis. The results of the case study research (excluding the analysis and interpretation) have been assessed and validated by an Environmental Legislation expert (expert consultation) via a constructed electronic feedback form and by an Energy Advisor with the Ministry of Economic Development via a semi-structured feedback interview conducted in person in 2011 (expert consultation). The collected data were structured in a chronological order. We identified the events with induction from the texts and databases. We also identified events from inputs from the interviews. We used the forces framework ([Frantzeskaki and de](#)

[Haan, 2009](#)) to relate the events to specific forces based on the impact of the different events on the system evolution and consequent transition.

2. Conceptual lens: dimensions of transitions and associate driving forces

2.1.1. Dimensions

The dimensions mentioned in the [Introduction](#) section may be specified more accurately as follows:

- *Institutional transitions* are conceptualized as the episode of transitions in which the forces at play have an impact on formal institutions. In the course of the institutional episode of transitions, formal institutions (comprising a multitude of structures of social order) transform radically. We follow the definition of institutions of North on formal institutions to define institutional transitions: Formal institutions are systems of rules and include “political (and judicial) rules, economic rules and contracts” ([North, 1990, p. 47](#)). Based on this, an episode in which the institutional dimension dominates is characterized by a change in the system of rules, including either change in one or more rules, or change in the organization of the system of rules (e.g. decentralized versus centralized organization of rules) or in an attribute of the organizations that promote and implement the rules at an operational level.
- *Socio-ecological transitions* are conceptualized as the episode of transitions in which the forces at play have an impact on formal and informal institutions (including those of civil society) and the ecosystem. Transitions in social-ecological systems are complex processes and quasi-emergent as “it is neither possible for one state to be deliberately transformed into the other, nor for the process to be fully controlled” ([Fischer-Kowalski and Haberl, 2007, p. 4](#)).
- *Socio-technological transitions* are conceptualized as the episode of transitions in which the forces at play have an impact on the institutions, civil society and technology. Socio-technological transitions are seen to be driven by technological development in face of societal demands and problems ([Geels and Schot, 2007](#)). Technological systems and their functions play an important role in the structuring of the contemporary societies especially after the communication revolution with the introduction of the Internet and the constitution of the network society ([Castells, 2000](#)).

2.1.2. Forces framework

Building on earlier work in [Frantzeskaki and de Haan \(2009\)](#), we propose a suite of driving forces that unravels what produces transition dynamics. This suite of driving forces is grounded in multiple theories for every episode of transitions. [Table 1](#) shows the theoretical grounds of the driving forces by focusing on scholarly work that explores each episode of transitions. The theoretical and empirical exploration of the drivers ([Table 1](#) and [Frantzeskaki, 2011](#)) justify the proposition that these driving forces act over the course of a transition and, if they act in synergy, propel processes that produce a successful transition.

The necessity of synergistic working of these drivers implies that (i) formation forces alone do not suffice for driving a transition, or, innovation alone cannot drive a transition, (ii) support forces alone do not suffice for driving a transition, or, policy alone cannot drive a transition, and (iii) triggers alone cannot drive a transition, or more specifically, crises alone do not suffice for driving a transition. Driving forces of change are those, which have the potential to transform the societal system and are located within and outside the system. In this way we complement and challenge existing views that consider forces external to the system to be more influential than internal forces ([Walker, 2009](#)).

Download English Version:

<https://daneshyari.com/en/article/7256300>

Download Persian Version:

<https://daneshyari.com/article/7256300>

[Daneshyari.com](https://daneshyari.com)