TOURISM POLICY IN THE MAKING
An Australian Network Study

Christof Pforr
Curtin University of Technology, Australia

Abstract: This paper demonstrates the usefulness of the policy network approach to describe, analyze, and explain the dynamics of the tourism policy domain with its vast variety of actors and complex web of interactions. This is achieved by focusing on stakeholders in the policymaking process, their relationships, and the structural context in which these take place. In the network study presented here the focus is on issue-specific influence reputation, cooperation, and communication, which underlie the formulation process of a particular tourism masterplan. These parameters are used to map the intensity and density of relational constellations and to assess if and how stakeholders take each other into account in their actions. Keywords: policymaking, network approach, Northern Territory, Australia.


INTRODUCTION

The paper presents a network analysis based on empirical research that documents how public, private, and nonprofit actors shape policymaking processes and policy outputs in the specific geographical and social formation of the Northern Territory (NT) of Australia. The focus is sectoral in that it concentrates on the tourism public domain, paying particular attention to a specific policy issue, the Northern Territory Tourism Development Masterplan: A Commitment to Growth (TDMP). This strategic document was released in 1994 outlining...
directions for tourism development formally until 1999 and provided guidelines for government and the industry (NTTC 1994).

Taking a process perspective, this task is achieved by describing, analyzing, and explaining the dynamics of the policy process in the case study. In particular, this paper explores in more detail the structural and relational constellation of the actors shaping NT tourism policymaking. In what follows, the complex nature of the interaction of these actors in the TDMP formulation is analyzed systematically from a more quantitative perspective. Given the focus on the policy process, only issue-specific network structures are explored. Even though the findings cannot automatically be generalized, a distinct pattern is still discernible. Since the policy network model represents a relatively novel analytical perspective (Börzel 1998a, 1997; Héritier 1993; König 1998; Pappi 1993), a more detailed discussion of the concept, including its history and different approaches, provides the context.

POLICY NETWORKS IN NORTHERN AUSTRALIA

In recent years, policy networks have contributed to the study of the policy process as an important conceptual innovation. Pappi (1993), for instance, characterizes this development since the early 90s, noting that “policy network analysis has become a dominant paradigm for the study of public policy” (König 1998:387). Reasons for this growing interest can be found in structural changes in the sociopolitical system over the past 20 years (Mayntz 1993). Main characteristics of the current developments debated in political science are, for instance, an increasingly fragmented policy process, sectoralization, decentralization, globalization and political uncertainty (Atkinson and Coleman 1992; Börzel 1998a, 1997; Thatcher 1998). Thus, the approach reacts to an increasing breakdown of the traditional boundaries between the state and society; policies are now more regarded as a result of interaction between societal and government participants (Atkinson and Coleman 1992; Héritier 1993; Mayntz 1993; Rhodes 1997; Thatcher 1998). According to Knoepfel and Kissling-Näf, since the 80s governance has been “increasingly characterized by a trend towards a nonhierarchical relationship between society and state and by the formulation and negotiation of policies in pluralist and corporatist networks or network-like structures” (1993:276).

The model has its origins in policy community/network concepts, which go back to research into the relation between state and interest groups in the United States in the 50s and 60s (Atkinson and Coleman 1992; Dowding 1995; Howlett and Ramesh 1995; Schubert 1991; Van Waarden 1992). Although these approaches have been used interchangeably for a long time, a conceptual distinction between them became widespread in the literature in the 80s (Atkinson and Coleman 1992; Howlett and Ramesh 1995). Wright, for instance, points out that “community is not the same as network” (1988:605), since the former consists of participants involved in the policymaking process and the latter refers to the relationship among these actors (Atkinson and Cole-
Different classifications of policy networks can be found in the literature such as the network typologies of Rhodes (1986), Wilks and Wright (1987), Atkinson and Coleman (1989), Jordan and Schubert (1992), Van Waarden (1992), or Marsh and Rhodes (1992), just to mention the more frequently referenced examples (Börzel 1998a, 1997; Howlett and Ramesh 1995; Thatcher 1998; Van Waarden 1992). Thatcher concludes that the “different forms of state-interest group relations under the heading of policy network have not led to a common terminological currency” and that “there is no one single policy network approach in public policy” (1998:390–396). The scope of this paper does, however, not allow the consideration of the different classifications in greater detail. But, despite this plurality of typologies, Börzel points out that they all share a common understanding of policy networks as power dependency relationships between the government and interest groups, in which resources are exchanged. The typologies, however, differ from each other according to the dimensions along which the different types of networks are distinguished (1997:2).

Börzel (1998a, 1997) differentiates between two schools of analysis, the so called interest intermediation and the governance schools. The former regards policy networks as a model to analyze the relations between government and society, a research focus mainly followed in Anglo-American countries. It can be seen as a further development of the dichotomy between pluralism and corporatism, “as an umbrella concept which integrates the different forms of pluralism and corporatism as specific versions of networks” (1998a:267). The latter approach concentrates on a particular public-private interaction, a governance structure between hierarchy and competition. Here, policy networks are seen “as a form of governance which is characteristic of modern political systems” (1998b:354). This understanding is best developed in the German literature and many researchers of this so called governance school are related to the Max Planck Institute for the Study of Societies. They regard the model as an alternative, specific form of state-civil society interaction, based on nonhierarchical coordination, opposed to hierarchy and market (1998a, 1997).

By employing the policy network model in the context of tourism with its vast variety of actors and complex web of interactions, the focus can be set on the participants in the policymaking process, their relationships, and the structural context in which these take place. In this analysis, the focus is set on issue-specific influence/reputation, cooperation, and communication networks, which underlie the formulation process of the TDMP. These parameters are used to measure mutual relevance, which refers to the understanding that players take each other into account in their actions (Knoke and Laumann 1982; Schneider and Werle 1991). This approach allows “a more fine-grain analysis” (Börzel 1997:2) of the territory’s tourism policymaking process.

Commonly, the toolbox for describing network structures is borrowed from social network analysis (Scott 2000; Wassermann and Faust...
This provides a broad spectrum of approaches, such as position, reputation, and decision- or participation methods. As Melbeck states "[e]ven at the theoretical level there are differences of opinions as to who these actors are and what constitutes political decisionmaking. Thus, it is hardly surprising that empirical studies of this subject use a variety of conceptual specifications, associated with very different modes of operationalization" (1998:531).

The paper follows what is termed in the literature the structural approach (Knoke 1998,1990; Marsh 1998; Marsh and Rhodes 1992; Marsh and Smith 2000) where the relations between actors rather than their individual attributes are used to explain public policy processes. Brandes, Kenis, Raab, Schneider and Wagner distinguish between two principal types of structural analysis:

On the one hand, there are structural methods aiming at a detailed description of whether and how the different actors in the network are connected to each other via direct and/or indirect links of communication, support, or other flows of policy resources. . . . The other type of structural analysis is less interested in whether actors are directly or indirectly connected, but more in the similarity or dissimilarity of the profiles of the relations in which an actor is involved (1999:92).

The connectedness perspective of the former type is applied in this paper, since it allows for the structural description of actors and their relational constellation, an investigation of subnetworks, the identification of "blocks" of actors (characterized by a higher degree of cohesiveness), as well as an analysis of the overall network structure, its density and level of centrality. The methodology utilized in this study broadly follows the works of Laumann and Knoke (1987), Schneider and Werle (1991), and Melbeck (1998). In essence, the main focus is directed to the questions of who the core actors in the TDMP process are and what the nature of their interaction is. Generally, relational configurations can represent the involved actors’ communications, participation, resource exchange, sociopolitical support, influence reputation or status relations (Brandes et al 1999). The aim of this paper is to map the pattern of relationships in the NT tourism policy domain by focusing on three main types of interaction: on reputational ties, on cooperation, and on information exchange (communication).

Applicable to this study, Melbeck (1998) points out three characteristics of empirical network analysis. One, the investigation is often concentrated on one policy domain (Laumann, Heinz, Nelson, and Salisbury 1991), in this case tourism, which does not mean that the analysis is concerned with policy as a whole but relates to only one particular policy issue, the TDMP. Pappi (1993) states in this context that the interactions are related to certain policies and Melbeck points out that this "is an analysis of issue-specific networks" (1998:532). Two, the study is commonly directed to a particular phase of the policy cycle (Pappi, König and Knoke 1995) as a means to limit the number of actors under investigation, but often it appears difficult to clearly distinguish among various phases of the cycle and to assign specific actors to
its different stages. Normally, networks are functionally defined by formulation and implementation of policy. In this paper, the analysis is directed to the policy formulation stage of the TDMP process (Pforr 2001, 2002). Although network studies focus usually on public policies, this does not mean that the analysis is concentrated only on players from the political-administrative system, because there is also an interplay between public and private actors. In this context, three, another issue is the mixture of individual and corporate actors or organization. In many past studies emphasis primarily directed to the latter resulted in both individual and collective unorganized actors often being ignored (Knoke, Pappi, Broadbent, and Tsujinaka 1996; Marin and Mayntz 1991; Melbeck 1998). Hall criticizes this narrow focus, stating that “although individuals are clearly significant in tourism development, planning and policy, network and collaborative approaches have tended to focus on the organizational dimensions of development” (1999:281). Despite the strong case made by the critics of this exclusion, it turned out to be without substance for the analysis of the TDMP since, as described later, no important individual actors who would have played a significant role in the process could be identified as excluded.

The Northern Territory of Australia

The Northern Territory (Figure 1) is a peripheral region in Australian geographic terms with a small population base (1% of the country), sparsely distributed on one-sixth of the total landmass. The main administrative center is Darwin as the capital, with approximately half of the NT’s population located in the Greater Darwin area. Alice Springs, the second largest center, together with the Darwin region, accounts for two-thirds of the population. The remainder are spread across a few smaller towns such as Katherine, Tennant Creek, and Nhulunbuy, and many widely dispersed rural settlements.

In political terms, the Northern Territory, granted self-government in 1978, can be regarded as a de facto state within the Australian federal system. With respect to nearly all its functions, it is comparable to a state government (Heatley 1990), without possessing all state-type powers. It lacks control over Aboriginal land, in particular the two major national parks (Kakadu and Uluru Kata Tjuta). Further, it does not hold authority over its uranium resources, which are subject to Commonwealth jurisdiction (Heatley 1998,1990).

The NT’s relative isolation from the main population centers of Australia and physical adversities have contributed to the difficulties that the region has experienced in attracting and sustaining social and economic development. Its economic base can be described as narrow and fragile with the traditional staples, minerals, oil and gas, and rural industries (pastoralism and fishing) as major producing private sectors. In recent years, tourism has developed significantly. It has overtaken pastoralism to become the second largest income producer, contributing 5.6% of the territory’s gross state product (NT Treasury 2001).
Today, the NT is one of Australia’s important nature and indigenous culture-based destinations. It offers diverse landscapes with a unique flora and fauna and a vibrant Aboriginal culture. Based on these assets, the territory has been marketed nationally and internationally in the past years as the real Outback Australia. This image, especially as a nature and adventure destination and the “home of the traditional Aboriginal people”, has attracted relatively large numbers to the territory and boosted the industry from small scale to a mass phenomenon (DIB 2000:13). Thus, it comes as no surprise that the promotion of tourism has been a prime concern for the NT government.

In the past three decades, the territory government’s role can be characterized as that of a facilitator of tourism growth. But it was not until the mid-90s that the first overall tourism plan, the TDMP, emerged (NTTC 1994). This paper critically examines its development in the wider context of a discussion of tourism policymaking. The purpose is to describe, analyze, and explain this particular issue by asking how networks among public, private, and nonprofit actors shape the process.

The Policy Community

Based on the detailed examination of the TDMP files, a list of all organizations mentioned in the process was compiled. This initial set comprised 180 entries considered relevant. After the thorough analysis
of the TDMP files and many informal interviews, a subset of 54 organizations was selected. The approach taken is in line with Melbeck’s (1998) suggested steps to identify a system of actors based on mutual relevance. This sub-set included public and private organizations, which were active in the NT tourism policy domain and could be expected to be influential in the TDMP formulation process. Since information about an organization’s involvement naturally could only be provided by individuals, representatives of the respective listed organizations who held a leading position, or were agents in senior management at that time were selected. This follows Melbeck’s view that only “those in leadership positions are most likely to have the perspective necessary to provide information about ... an organization” (1998:534). Further, individuals in their leading position can be assumed to have the capacity to influence political decisions. A survey was mailed to them in early 2000 in which they were asked to address the questions from the perspective of their organization rather than to express their personal opinion.

As part of the survey, they were provided with a list of all identified actors. Since the decision method—selecting the relevant actors based entirely on the expertise of the principal researcher—risks overlooking important actors, this method was combined with a modified snowball technique (Melbeck 1998). It involved asking each interviewee to add any important actor missing on this list: “All the organizations on the attached list were identified as actors involved in the formulation process of the Northern Territory Tourism Development Masterplan during 1993/94. Is there any important organization missing on the list? If so, please name”. Even though no further influential agent was actually identified in this procedure, it did allow for the possibility for appropriate additions to the survey.

A standardized reply-paid questionnaire was used to investigate the relational configurations between the identified actors. Survey questions aimed to establish data relating to factors such as influence reputation, cooperation activity, and participation in information exchange. These factors can be used to test for mutual relevance, that is, the extent to which “actors take each other into account in their actions” (Knoke and Laumann 1982; Schneider and Werle 1991:111). Of the 54 questionnaires mailed out, 35 surveys were returned (65%). However, of these, nine were returned stating that the addressee had moved to an unknown location, was deceased, or simply did not feel relevant as a participant. These missing cases were counted into the overall response rate but did not exert any influence in the actual network analysis.

**Influence Reputation, Cooperation and Information Exchange**

The identification of those actors in a policy network seen as the most and least influential allows for the determination of the influence reputation of that system. The perceived relative capacity of each actor to influence public policy establishes a hierarchical structure, an
overall ranking order of influence reputation. The higher the position of an organization, the stronger its reputation of being able “to move-and-shake public policy outcomes” (Knoke 1998:508). It has to be pointed out, however, that the so identified positional elite does not necessarily have to play an equivalent active role in the actual political process.

To measure influence reputation, each participant was asked to identify those of the 54 selected organizations, which in his/her own professional opinion played an influential role in the TDMP process. There were no limitations as to how many players could be nominated: “We would now like you to tick those organizations which were in your opinion most influential in the formulation of the masterplan during 1993/94. There is no restriction to the number of choices you can make”. Responses were assembled into a square nonsymmetric binary adjacency matrix (a cell entry is 1 if an actor in the $i$th row considered an organization in the $j$th column to be especially influential, 0 indicates no such nomination). No entry was made for missing cases. The total number of 1s received in the $j$th column provides the influence score of the $j$th actor. From this chooser-to-chosen matrix a single unidimensional scale was established, ranking all actors by their influence reputation (Table 1).

Although this strategy is commonly employed to measure influence reputation, there are reservations that need to be noted, particularly the problem of the subjectivity of the nomination. The judgment of influence made by each participant does not necessarily follow the same criteria and thus might vary across the respondents. Knoke highlights this limitation, arguing that “identifiable subgroups [might] apply divergent standards” when making their selections, attempts by researchers to combine such “choices into a summary indicator [might] create a confused and misleading image of the system’s hierarchical structure” (1998:508). However, this approach was deemed suitable for this study, since informal discussions with some of the participants revealed very little divergence in the criteria for their judgment. The survey also established a picture of the cooperational activity of each actor in the policy network. The question put forward to the participants was to identify partners of cooperation: “with which organization(s) on the list did yours cooperate during that process?”.

To explore this cooperational network structure of the TDMP formulation process, an approach similar to that described beforehand for the influence reputation network was taken. Respondents’ votes were again summarized in a square nonsymmetric binary adjacency matrix. An entry of 1 indicates that the informant from a row considered the column organization to be a partner of cooperation, 0 specifies that no nomination was made and no entry again represents a missing case. By adding up each column entry, the overall vote for the respective column actor was obtained and reflects its cooperational activity. All results were ranked and summarized in Table 1. A comparison between the results of influence reputation and cooperational activity networks can reveal any divergence between influence perception and actual cooperation of those involved. However, no great discrepancy between
the two could be found for most participants in the TDMP process, which brings the analysis in line with previous studies (Schneider and Werle 1991).

To identify the domain’s communication network, a two-fold question was posed to the participants in the survey: “From which organization(s) did yours receive information relevant to the masterplan process” and “Please tick those organization(s) to which your organization sent or most likely sent information relevant to the masterplan process”. Such a two-way question provides greater depth of information, and allows for the probing of answers and the inclusion in the analysis of organizations which did not respond. Two subnetworks were established with this method, an undirected network (which only reflects the act of information exchange) and the directed network (in which the direction of the flow of information provides a further level of analysis). The latter is potentially richer, if not more comprehensive, in information that it helps identify one- and two-way channels of information exchange. A comparison between undirected and

### Table 1. Mutual Relevance

<table>
<thead>
<tr>
<th>Actor</th>
<th>( s_a )</th>
<th>( s_b )</th>
<th>( \text{undir-} s_c )</th>
<th>( \text{dir-} s_c )</th>
<th>( f )</th>
</tr>
</thead>
<tbody>
<tr>
<td>NT Tourist Commission (NTTC)</td>
<td>1.00</td>
<td>1.00</td>
<td>0.37</td>
<td>0.35</td>
<td>0.70</td>
</tr>
<tr>
<td>Masterplan Task Force</td>
<td>0.88</td>
<td>0.92</td>
<td>1.00</td>
<td>1.00</td>
<td>0.93</td>
</tr>
<tr>
<td>NT Tourist Commission Board (TCBoard)</td>
<td>0.88</td>
<td>0.54</td>
<td>0.37</td>
<td>0.33</td>
<td>0.60</td>
</tr>
<tr>
<td>Tourism Minister (TM)</td>
<td>0.88</td>
<td>0.31</td>
<td>0.26</td>
<td>0.21</td>
<td>0.67</td>
</tr>
<tr>
<td>Darwin Region Tourism Association (DRTA)</td>
<td>0.88</td>
<td>0.38</td>
<td>0.23</td>
<td>0.21</td>
<td>0.63</td>
</tr>
<tr>
<td>Central Australian Tourism Industry Assoc.</td>
<td>0.65</td>
<td>0.38</td>
<td>0.23</td>
<td>0.19</td>
<td>0.50</td>
</tr>
<tr>
<td>Katherine Region Tourist Association</td>
<td>0.53</td>
<td>0.38</td>
<td>0.80</td>
<td>0.73</td>
<td>0.73</td>
</tr>
<tr>
<td>Conservation Commission of the NT</td>
<td>0.53</td>
<td>0.85</td>
<td>0.23</td>
<td>0.21</td>
<td>0.67</td>
</tr>
<tr>
<td>Cabinet</td>
<td>0.47</td>
<td>0.15</td>
<td>0.06</td>
<td>0.05</td>
<td>0.00</td>
</tr>
<tr>
<td>Tennant Creek Regional Tourist Association</td>
<td>0.41</td>
<td>0.46</td>
<td>0.14</td>
<td>0.13</td>
<td>0.00</td>
</tr>
<tr>
<td>Alice Springs Town Council</td>
<td>0.35</td>
<td>0.15</td>
<td>0.23</td>
<td>0.19</td>
<td>0.50</td>
</tr>
<tr>
<td>Chief Minister</td>
<td>0.29</td>
<td>0.08</td>
<td>0.11</td>
<td>0.10</td>
<td>0.00</td>
</tr>
<tr>
<td>Infrastructure and Development Sub-Committee</td>
<td>0.24</td>
<td>0.31</td>
<td>0.14</td>
<td>0.14</td>
<td>0.00</td>
</tr>
<tr>
<td>Department of Transport and Works</td>
<td>0.24</td>
<td>0.38</td>
<td>0.14</td>
<td>0.11</td>
<td>0.00</td>
</tr>
<tr>
<td>Department of the Chief Minister</td>
<td>0.18</td>
<td>0.08</td>
<td>0.94</td>
<td>0.92</td>
<td>0.83</td>
</tr>
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<td>Darwin City Council</td>
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<td>0.23</td>
<td>0.31</td>
<td>0.29</td>
<td>0.67</td>
</tr>
<tr>
<td>Legislative Assembly</td>
<td>0.12</td>
<td>0.23</td>
<td>0.11</td>
<td>0.10</td>
<td>0.00</td>
</tr>
<tr>
<td>Jawoyn Association (Jawoyn)</td>
<td>0.12</td>
<td>0.31</td>
<td>0.09</td>
<td>0.06</td>
<td>0.00</td>
</tr>
<tr>
<td>Pacific Asia Travel Association</td>
<td>0.12</td>
<td>0.00</td>
<td>0.17</td>
<td>0.17</td>
<td>0.80</td>
</tr>
<tr>
<td>Tennant Creek Town Council</td>
<td>0.06</td>
<td>0.31</td>
<td>0.14</td>
<td>0.14</td>
<td>0.00</td>
</tr>
<tr>
<td>Tourism Training NT</td>
<td>0.06</td>
<td>0.15</td>
<td>0.26</td>
<td>0.17</td>
<td>0.29</td>
</tr>
<tr>
<td>Central Land Council</td>
<td>0.00</td>
<td>0.08</td>
<td>0.37</td>
<td>0.25</td>
<td>0.33</td>
</tr>
<tr>
<td>Wayside Inn Association (Wayside)</td>
<td>0.00</td>
<td>0.23</td>
<td>0.06</td>
<td>0.06</td>
<td>0.00</td>
</tr>
<tr>
<td>Centralia College (Centralia)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.26</td>
<td>0.17</td>
<td>0.33</td>
</tr>
</tbody>
</table>

\( a \) Influence Reputation \( s_{ir} \).  
\( b \) Cooperation \( s_c \).  
\( c \) Information exchange \( s_{ue} \) (undirected and directed) of the most important actors in the TDMP Formulation Process.  
\( d \) Frequency \( f \) of two-way communications within information exchange elite network.
directed information exchange activities can provide an indication about the frequency of two-way communications.

The calculation of both subnetworks’ densities (defined as the number of ties occurring in the matrix divided by the number of all theoretically possible ties) provides information about the frequency and nature of information transmissions in the system. In the undirected network of information exchange, the total density is calculated as \( \frac{2l_t}{n(n-1)} \) where \( l_t \) is the number of undirected acts of information exchange in the domain and \( n \) the number of actors in the network. In the case of a directed network analysis, the total density is obtained in a similar manner: \( \frac{l_d}{n(n-1)} \) with \( l_d \) being the number of existing directed communication channels. Naturally, densities can range between 0 and 1, representing the extremes of a totally disconnected and a totally connected graph. Further, the total density of the directed network will always be equal to or smaller than the overall density of the respective undirected structure (Melbeck 1998; Scott 2000). In a similar fashion, the activity of each individual actor in the undirected and directed network can be expressed. In the former \( l_a/(n(n-1)) \), in the latter case \( l_a/2(n-1) \) whereby \( l_a \) is the number of directed or undirected acts of communication of the respective actor and \( n \) the number of actors in the network under investigation.

In accordance with the previously described method, two unsymmetrical binary adjacency matrices were established. In the first, a cell entry of 1 indicates that the \( i \)th row received information from the \( j \)th column organization, in the second matrix a 1 confirms that the respective row \( i \) provided information to the column actor \( j \). In both cases 0 means no such information exchange took place and no entry again represents a missing case. A thorough cross-analysis of all responses made it possible to establish the number and nature of directed and undirected acts of information exchange for each actor. The top-ranking organizations in undirected and directed communications are summarized in tabular form (Table 1).

In this paper, the obtained data are communicated in three different ways, in tables, sociograms, and a three-dimensional scattergram. Raw data were initially summarized, as already mentioned, in form of square nonsymmetrical binary adjacency matrices. Such information, which is very difficult to read, is much easier to comprehend if summarized in form of tables. In this case study, the most important results of these matrices are in tabular form (Table 1), highlighting the top-ranked actors in each network structure (influence reputation, cooperation, undirected and directed information exchange). Since tables and matrices are limited in their explorative capacity of quantitative data, two graphical methods are utilized here, sociograms (Figures 2–4) and a three-dimensional scattergram (Figure 5), to enhance the analysis. Sociograms are used to communicate two aspects of information: the web of ties between the different actors reflects the overall information exchange activity within a particular network, and the size of the node translates into the aggregate influence reputation or cooperative activity of each actor. The three-dimensional scattergram is used to summarize all three levels of analysis undertaken in this study.
It allows the illustration of the actors’ positions three-dimensionally in the overall TDMP policy network, but does not visualize the relationships among them.

Figure 2. Influence Reputation Elite

The Policy Networks of the TDMP

Corresponding to the results found in the influence reputation matrix, Table 1 provides an overview of the highest scores of influence reputation \( s_{ir} \), whereby all indices were rescaled to a maximum score of \( s_{ir} = 1.00 \). It summarizes the top ranking actors \((s_{ir} \geq 0.18)\) as the perceived elite of this network. As shown, there is a leadership group consisting of the following five actors: the Northern Territory Tourist Commission \((s_{ir} = 1.00)\), followed by the Masterplan Task Force, the Northern Territory Tourist Commission Board, the Tourism Minister and the Darwin Region Tourism Association (all four with \( s_{ir} = 0.88 \)). Among the industry actors next to the latter, several other regional tourism associations, namely from Central Australia \((s_{ir} = 0.65)\), Katherine \((s_{ir} = 0.53)\) as well as Tennant Creek \((s_{ir} = 0.41)\), were frequently nominated. Political actors, mostly representatives from the central political-administrative system in Darwin, were the Northern Territory
Conservation Commission ($s_{ir} = 0.53$), the Cabinet ($s_{ir} = 0.47$), the Chief Minister ($s_{ir} = 0.29$), the Department of the Chief Minister ($s_{ir} = 0.18$), the Infrastructure and Development Sub-Committee ($s_{ir} = 0.24$), and the Department of Transport and Works ($s_{ir} = 0.24$). But also some agents of local government found entry into the list of actors with the highest influence reputation, the Alice Springs Town Council ($s_{ir} = 0.35$) and the Darwin City Council ($s_{ir} = 0.18$).

The overall picture of influence reputation presented in Table 1 unveils no great surprises. Next to political actors, the tourism industry appears to be seen as prominent in the masterplan process, reflecting the traditional pattern of a close partnership between public and private sector interests in the NT; other community concerns were not regarded as playing any influential role (Pforr 2001). The NT Tourist Commission was perceived as a leader in that network. This is probably a consequence of its role as the responsible government agency for NT tourism. The task force was an institutional arrangement established exclusively for the development of the masterplan and consisted of representatives of various government departments. It was anticipated that it would score highly with respect to influence reputation. It is, however, interesting to note that the commission as well as the Department
of Transport and Works both were singled out as being influential organizations in their own right, despite being also officially part of the task force. The fact that national parks are the major destinations

**Figure 4. Information Exchange Elite**

**Figure 5. Mutual Relevance Elite**
in the territory might help to explain why the commission, which is
responsible for the management of these areas, scored so highly.

Similarly, the Department of Transport and Works is responsible for
infrastructure development and capital works in the NT, both areas of
particular significance for tourism. Further, the strong reputational po-
sition of the political Executive, represented by the Cabinet, the Chief
and Tourism Ministers, in the top 16, is in line with the territory’s tra-
dition of strong control and distinct leadership figures (Pforr 2001).
The Regional Tourism Associations as the industry’s peak bodies in
the region were seen as the most influential voices in representing
regional industry interests. The Darwin Region Tourism Association
appears to lead this team, probably due to its advantageous close geo-
ographical proximity to government. Slightly dragging behind in the
score can be found the Alice Springs and Darwin municipal councils
as representatives of the most important regional hubs. All other, more
than 60, local government authorities were not perceived as having any
major stand in the masterplan process.

Looking at the corresponding sociogram (Figure 2), the 16 actors
regarded as most influential in the TDMP formulation process are
presented as nodes with their diameter reflecting their influence
reputation score. The arrows provide a second layer of information,
the activity of these actors among each other in the masterplan’s com-
munication network. Single-pointed arrows represent one-way commu-
nication channels, a double-pointed stands for a flow of information in
both directions. Calculating the density of the underlying undirected
($l = 0.458$) and directed ($l_d = 0.400$) communication networks, the pro-
portion of actual to theoretically possible links between all 16 actors, it
becomes obvious that mainly two-way communications took place.

Among the system leaders in the influence reputation network (Fig-
ure 2: NTTC, TF, TCBoard, TM, and DRTA) the task force’s particu-
larly high activity in information exchange is striking, especially when
compared to the relatively moderate communication activity of the
commission, which is regarded as the most influential actor. This dis-
crepancy between influence perception and actual communicational
activity is even more extreme in the case of the Department of the
Chief Minister. These findings are not surprising, however, considering
the task force’s assigned role as the interdepartmental committee
responsible for the development and coordination of the TDMP pro-
cess. This institutional arrangement also explains why the commission
shows less activity in information exchange, having transferred these
duties to the task force. The very strong role of the Department of
the Chief Minister in communicational activities can be related to its
particular task of coordinating policy developments, which naturally
occurs more in the background. This might be the reason why, despite
this active role, the department was not considered as particularly influ-
ential in the TDMP process.

The binary data of the matrix relating to the cooperational network
in the TDMP formulation process are also summarized in Table 1. All
in all, the rank order of cooperation (rescaled to a maximum coopera-
tion score of $s_c = 1.00$) is very similar to that of influence reputation.
The core of network leaders in this case is, however, smaller, consisting only of the NT Tourist Commission ($s_c = 1.00$), the Masterplan Task Force ($s_c = 0.92$), and the NT Conservation Commission ($s_c = 0.85$). The first two actors remain the same in both networks under investigation, but the commission improved its ranking significantly from eight to three. This promotion might be a reflection of the previously noted role of this organization having responsibility for the NT national park system. A similar trend can be seen for the Department of Transport and Works ($s_c = 0.38$), which moved from position 14 in the influence reputation network to position six as a result of its prominent role in infrastructure development. Furthermore, comparing with the influence reputation elite, new entries on the list of the top ranked nominated partners of cooperation with a minimum score of $s_c = 0.23$ are the Tennant Creek Town Council ($s_c = 0.31$), the Jawoyn Association ($s_c = 0.31$), the Legislative Assembly ($s_c = 0.23$), and the Wayside Inn Association ($s_c = 0.23$). Of those, the Aboriginal Jawoyn Association is probably the most remarkable actor. Its activity in the masterplan process, however, comes as no great surprise, since the Association is a well-known player in the NT tourism system. The most prominent of the Association’s functions is its involvement in the joint management, with the NT government, of Nitmiluk National Park.

Another striking point arising from the comparison of influence reputation with cooperation networks is the political Executive’s strong relative decline in importance. The Chief and Tourism Ministers as well as the Cabinet played no significant role in cooperative relations. One possible explanation for this finding is the fact that these actors played a more dominant role in the decisionmaking stage of the policy process, which usually follows the formulation phase, although it is often difficult to establish clear boundaries. Thus, this might have caused the discrepancy between the influence reputation of these players compared to their actual cooperative activity in the TDMP formulation process. Additionally, it can also be argued that the NT’s tradition of rigid control by the political Executive, headed by influential leadership figures, automatically causes a strong perception of significant influence (Pforr 2001).

The respective sociogram (Figure 3) does not provide a great deal of additional information, but it does show a correspondence between cooperation relations (circle diameter) of the 16 top actors in this network and their activity in information exchange among each other. A comparison of the density of the undirected ($l_e = 0.350$) and directed ($l_e = 0.300$) information exchange networks again unveils a high percentage of two-way communications between these players.

In the information exchange network of the TDMP formulation process similar trends can be observed regarding the positional elite when compared to the structures found in the previously discussed influence reputation and cooperation networks. Most actors identified as playing a prominent role in those structures again emerge as particularly active in information exchange. Nevertheless, there are some unexpected findings, especially with respect to the network’s leadership group and some new players making their presence felt.
As already discussed, information exchange can be analyzed from two perspectives, either in the form of an undirected network reflecting only the act of information exchange independent from its direction, or in a directed structure which takes into account the occurrence of one- and two-way communications. The results of the information exchange matrices are also summarized in Table 1, which displays the actors most frequently nominated (rescaled to a maximum score of $s_{\text{ie}} = 1.00$) in the two information exchange networks. Further, the frequency of two-way communications $f$ (number of undirected contacts $c_{\text{undir}}$; number of two-way contacts $c_{\text{tw}}$; frequency of two-way communications calculated as $c_{\text{tw}}/c_{\text{undir}}$) in this top group is also listed. A very distinct leadership group crystallized in this network, headed by the task force (undirected $s_{\text{ie}} = 1.00$) and closely followed by the Department of the Chief Minister (undirected $s_{\text{ie}} = 0.94$; directed $s_{\text{ie}} = 0.92$). The Katherine Region Tourist Association (undirected $s_{\text{ie}} = 0.80$; directed $s_{\text{ie}} = 0.73$) was ranked third. A considerable gap among these three and all other actors can be noticed, a gap that accounts for a drop of more than 50% in activity for the player(s) placed in the next position on the list. In the undirected network, three organizations jointly take up the fourth position (undirected $s_{\text{ie}} = 0.37$): the NT Tourist Commission, the Northern Territory Tourist Commission Board, and the Central Land Council. In the directed network only one actor, the commission, is in fourth place ($s_{\text{ie}} = 0.35$).

Discussing the leadership circle, the dominant role of the task force was anticipated, considering its assigned role as the interdepartmental committee in charge of the overall development and coordination process. Having transferred these duties to the task force, this institutional arrangement also explains why the commission showed considerably less activity in information exchange, despite being the responsible government agency for NT tourism planning and development at that time. The high ranking of the Department of the Chief Minister, however, is initially surprising, considering that it scored only a medium ranking with respect to cooperation activity. What might at first seem to be a discrepancy and inconsistency can be interpreted in terms of the different perceptions the respondents had on cooperation and communication activity. The Department sent and also received a lot of information, but this was not generally seen as active cooperation. The interviewees apparently expected cooperation to consist of more than the passing on and receiving of information to nominate a player. Under the strong leadership figures of the various Chief Ministers, the Department has developed into a political control center. Its strong communicative activity can be seen as a reflection of its role as central body with coordinating, policy and planning function in the NT polity. Further, placing the industry under close scrutiny by the core of NT political power is also an indication of the level of importance accorded to tourism (Heatley 1998, 1996; Weller and Sanders 1982).

As one of the four regional peak industry bodies in the NT, the third place taken by the Katherine Region Tourist Association is another rather unexpected finding. The high level of activity is a reflection of this actor’s ambitions to become actively involved in the TDMP pro-
cess. It found its level of efficiency, however, quite unsatisfactory, since it was one of the strongest critics of the masterplan process. A more detailed analysis of the association’s information exchange activities is provided elsewhere (Pforr 2002, 2001). New nominees among the top ranked actors with respect to information exchange activity are the Central Land Council (undir-$s_{ic} = 0.37$; dir-$s_{ic} = 0.25$), Tourism Training NT (undir-$s_{ic} = 0.26$; dir-$s_{ic} = 0.17$), Centralia College (undir-$s_{ic} = 0.26$; dir-$s_{ic} = 0.17$), and the Pacific Asia Travel Association (undir-$s_{ic} = dir-s_{ic} = 0.17$). Of these, the most interesting is the Central Land Council, the main representative and advocate of indigenous interests in Central Australia and a rare example for an actor outside the monolithic government-business alliance in the NT polity to be nominated. Its appearance in the information exchange network’s elite on a first glance comes as surprise. However, a closer analysis of its activities (Pforr 2002) revealed that it was mainly involved in one-way communications, either receiving but not responding to information, or the other way around. Thus, it cannot be counted as a very involved actor in the TDMP process, although its relatively high position in the information exchange ranking might suggest this. This trend is also reflected in the frequency of two-way communications $f$ listed in Table 1. The relatively small percentage of confirmed transmissions for the Central Land Council ($f = 0.33$), compared to most of the other top actors in this network elite, is also evident for two of the new players, the Tourism Training NT ($f = 0.29$) and Centralia College ($f = 0.33$).

Figure 4 displays the information exchange activities among the 15 top-ranked players in this network. It has to be noted that this graph is not an illustration of the network’s overall structure, since only the communication channels among the listed actors are shown. However, it gives a good overview of the confirmed and unconfirmed transmissions within this elite. The overall network density of undirected communications is with undir-$l = 0.600$ reasonably high. A comparison with the directed communication density (dir-$l = 0.486$) shows that some of these acts of information exchange were unconfirmed transmissions. With respect to information exchange activity within the information exchange elite (Table 1), the masterplan task force, the Department of the Chief Minister and the Katherine Region Tourist Association establish themselves again as system leaders. Their role is, however, not as dominant compared to the overall network structure.

CONCLUSION

The TDMP process was derived from a complex web of actors and their interactions, as discussed in this issue-specific network analysis. The aim of employing such an approach was to identify the key policy actors and the establishment of their influence reputation and their decisionmaking relevance as well as the mapping out of the intensity and density of their relational constellations. On the basis of three different network analyses (namely influence reputation, cooperation
activity, and participation in information exchange) it was possible to establish mutual relevance, the way these actors took each other into account in their actions.

To summarize and visualize the structures of mutual relevance in the TDMP formulation process, a three-dimensional scattergram is employed (Figure 5). Rescaled to 1.00, the x-axis refers to the respective directed information exchange score $s_{ir}$ of the top ranking actors, on the y-axis their reputational score $s_r$ is displayed, and from the z-axis the respective score $s_c$ in cooperational activity can be obtained (Table 1). The relative position of each organization in this three-dimensional space gives a good overview of its overall performance in the process and its mutual relevance.

The high ranking of the task force in all three categories illustrates its outstanding position in the TDMP formulation process, making it clearly the dominant coordinator and system leader. The Department of the Chief Minister was a player more active behind the scenes, as can be inferred from its relatively low score in influence reputation and cooperational activities. Its high level of involvement in information exchange activities enabled it to assert government control over the administration and management of the policy process. On the other hand, the commission was perceived to be very influential, but it did not entirely live up to this expectation as it received only a moderate score in communication over this particular policy issue. Naturally, this player scored highly in reputation as it was the government agency responsible for tourism planning and development. Therefore, already existing links with other relevant actors in the policy matters might be responsible for its very high number of nominations as partner of cooperation. The commission’s moderate role in information exchange was most likely due to the transfer of this function to the task force, which was set up by the commission as an interdepartmental committee to develop the TDMP. All in all, the overall impact of this organization within the TDMP process remained limited. A similar picture can be found for the NT Tourist Commission Board and the conservation commission, which both received relatively high rankings in influence reputation and cooperation, but were only moderately involved in communicative activities.

Next to the task force, the most balanced player with respect to all three criteria appears to be the Katherine Region Tourist Association, which achieved a relatively high overall ranking in mutual relevance. As the only representative of tourism, this actor lived up to its assigned role as peak industry body. Its counterparts in the other tourism regions in the territory, the Darwin Region Tourism Association, the Tennant Creek Regional Tourist Association, and the Central Australian Tourism Industry Association, failed to fulfill this role despite a relatively high influence reputation among the participants. Surprisingly, despite its advantageous, close geographical proximity to government in Darwin, the Darwin Region Tourism Association did not play a particularly active part. The bulk of other actors in the graph remain more or less insignificant for the TDMP formulation process.
Analyzing the scattergram more from a functional perspective, the dominant position of political-administrative actors in the process becomes apparent. If other players were allowed access to this inclusive circle, it was mainly those bodies representing the industry’s interests, the regional tourism associations. For the NT this was a typical partnership between political and business interests. Actors from outside this alliance were almost completely excluded from the policy process; community-based interest groups or the environmental lobby did not play any significant role. Thus, the graph represents a network of political and economic actors, which was itself mainly shaped by the existing institutional arrangements of the central government in Darwin. It does not present a balanced structure, but is proof of a traditional top-down approach, one that mostly ignored interests other than those of key concern for the industry. Therefore, tourism policymaking was clearly subordinated to political and industry priorities.

The strong control over this policy development by the political power base in Darwin is also evidence for a lack of mechanisms to direct responsibilities to the subordinate regional and local levels. As can be seen in the scattergram, these perspectives did not have any significant influence on the process, mirrored, for instance, by the little impact of the NT local government authorities, indicated by the scores of relatively close to zero on all three axes. Despite the limitations of these existing institutional arrangements, the lack of initiative by local government bodies and other industry and community interests (such as the Aboriginal lobby) might also be a reflection of a lack of will or capacity to move-and-shape public policy outcomes (Pforr 2002).

To conclude, the study was successful in revealing and analyzing the different network structures underlying the TDMP formulation process. Although the findings of this policy network analysis cannot automatically be generalized for policymaking in the NT, a distinct pattern still emerged. The analysis established the dominant position of political-administrative actors in the formulation process. The only other players able to gain access to this exclusive circle were the regional tourism associations representing tourism’s interests. These prominent political and industry players were able to exert control over the process and could access important sources of information based on their centrality in the various network structures. This alliance of political and business interests is typical for the NT (Pforr 2001). Those policy actors who were outside this grouping were almost completely excluded from the process. As earlier studies have demonstrated (Craik 1990,1991; Hall 1999; Jenkins 2001; McMillen 1991), the portrayed picture of the dominance of close business-government ties mirrors the situation elsewhere in Australia.

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