

## **Draft**

# **Understanding spatial development and interactions in small islands**

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## **Abstract**

This paper aims to identify the key features and main factors of spatial development and interaction in small islands to help in engaging better policy and planning actions. It builds on the concepts of insularity, connectedness and local-global relationships as key features for small island development. Using analysis and observations from the North Aegean region of Greece, the paper highlights the nature of general and specific factors of development and interaction. It is argued that identification and awareness of these unique insular characteristics can allow the planners and policymakers to carry out development actions in accordance with the specific requirements of island communities and regions by identifying the interactive role of leading agents and various networks at different spatial scales.

## **Keywords:**

insularity, connectivity, connectedness, local-global relationship, small islands, sustainable development, spatial interaction

## **1. Introduction**

The literature on spatial development is rich with arguments in favour of development spill-overs from globalisation dynamics for the developing areas, peripheral regions and small islands (Read, 2004). It is, however, important to understand that there are also such ‘globalisation practices’ that potentially lead to uneven growth patterns and subsequently affect endogenous social, economic and cultural development in different areas (Hadjimichalis, 1987). Issues related to such practices have been widely covered in analytical literature on Imperialism (Amin et al., 1976, Novy et al., 2005), systems thinking (Beishon and Peters, 1972), and centre-periphery dynamics (Myrdal, 1957). For example, in peripheral regions including many islands, economic ‘incidents’ such as rapid opening and closure of branch-plants may lead to an increased dependence upon activities in a primary sector (if there is one) and to the rise of service industries (Martinelli, 1991); equally such ‘incidents’ impact on habits of traditional socio-cultural practices and norms, which can offer only few perspectives for development, unless accompanied by structural policies. Today, issues related to the development of small islands, their communities and settlements are receiving increasing international attention (Baldacchino, 1999a; Royle, 2001; Tibaijuka, 2005). In terms of spatial interactions, many recent works have focused on spatial economic interaction (Liu and Liu 2008) social networks (Carrasco, Hogan et al. 2008) and cross-border relations among coastal areas (Pikner 2008) in general. Whereas for small islands, with the exception of historical literature on strong social, economic and cultural interactions (Hofman, Bright et al. 2007), relatively little attention has been given to the contemporary networks of multilevel interaction (Zwier 1994; Coccossis and Nijkamp 1995; Hage and Harary 1996).

The following sections provide detailed insights into the distinctive disposition of small islands and their communities with local identities, social relations and physical resources, as well as the underlying mutual relationships and historical trends. Section 2 below identifies key features of small islands in terms of insularity, connectedness and local-global relationship based on Moulaert and Delladetsima (2000). Section 3 provides discussion on the factors of island development, and synthesises into general and specific factors. Section 4 observes multilevel interactions in the case of small islands. In conclusion, I assert the effectiveness of insularity, connectedness, and local-global relationship in island development analysis and point out further

challenges in terms of interactional and behavioural aspects such as selection, adaptation and dynamic routines within island communities. During the following discussion various direct, indirect and embedded references are made to small islands in general and North Aegean islands of Lesbos and Chios in particular.

## **2. Features of island development**

Features generally refer to the appearance and behavioural aspects of an entity. In an insular context they concern the sources of social cohesion, demographic functions, and local character on one hand, and the characteristics of general appearance, physiognomy, and physical endurance on the other (Ghina, 2003). A small island provides an appealing example of social organisation with communities living together yet isolated from the rest of the world in one way or the other. This raises question as to how and why different islands, their communities and the local agents react differently to various events (such as war, peace, natural disasters etc). There is also a growing concern in socio-economic development literature about the ‘scales’ of planning and developmental emphasis between the spatial extremes of local and global (Albrechts et al., 2001).

If we look at the history of the Aegean islands, various distractive events caused by warfare, natural hazards etc. as well as periods of prosperity have brought forward social, cultural, political, and economic changes (Vernicos and Vernicos, 1981). However, a cautious outlook also reveals that these islands – or at least their leading agents – took each situation as a new opportunity to diversify and redirect their socio-economic activities (Vernicos, 1990). In the island of Lesbos, for example, the frost in 1850 led to economic restructuring and industrial development, along with specialised ouzo exports. After the desertification of olive plantations, new technologies were adopted in olive oil processing, textile mills, and soap factories (Economou-Tachsis, 1909). Besides the traditional local habits of mutual cooperation and somewhat ‘built-in’ behaviours of facing natural hazards, regional socio-economic and political conditions, as well as the viability of international trade, appear to be the major external variables of insular socio-economic survival and success in the above examples. Similarly, in the peaceful periods of growth, the insular communities adapted, developed and specialised their entrepreneurial skills whereas the islands prospered with evolving urbanised settlements.

This brings our attention to build on the conceptual framework from the preliminary affiliation between the features of insularity and connectedness as well as local-global relationship as proposed by Moulaert and Delladetsimas (2000). The argument here remains that although the features of ‘local’ are potentially relevant for island development analysis, yet small islands possess more than interconnected networks of localities that can be identified in terms of local-global relationships and their effects on the dialectics between insularity and connectedness.

### *Insularity*

Insularity can be expressed in various dimensions; such as relative physical isolation, sustained resources (Royle, 2001), more cohesive communities, unique cultures and traditions, and social/technical cooperation networks that are embedded in socio-economic relations. There are three prominent aspects that emphasise the importance of local initiatives for small islands. First, in terms of ‘community relationships’, there are strong historical bonds within each small community (Malinowsky, 1921), which lead to cooperation among different communities in terms of socio-economic and cultural activities (Polanyi et al., 1957), and valorisation of the existing relationships. Various kinds of formal and informal competitive/friendly cooperative networks (Barnes, 1954) are developed through the leading actors/agents in each community, which emphasise the preservation of their own expertise as well as learning from others’ practices (Sahlins, 1968). Second, the role of local cultures and traditions is strongly linked with socio-economic and networking activities that result from practices based on the norms of reciprocity, redistribution, and exchange (Polanyi, 1957). Relationships developed in such contexts are multi-scalar and mutual and become embedded into the socio-economic habits of the communities. Finally, the physical insularity (Sanguin, 1997) often results in unique bio-systems, either favouring or checking flora and fauna, in specific marine biology and geological features, which usually endow each island with a distinct individual character, even among large archipelagos. However, occasional natural hazards such as volcanic or seismic activities may affect long-term commitments and interactions with distant markets.

These observations imply the need to understand the concept of ‘isolation’ in a wider context that would cover most of the physical, social, political, economic features while calling for dialectics with connectedness. A spatial dimension of insularity

generates a need for preservation and protection of spatial features. And these aspects hold the ambiguities of attractiveness and unattractiveness at the same time in just the same way that the idiosyncratic perspectives of an author can be interesting, uninteresting or irrational simultaneously. For example, fish farming can be attractive to transnational corporations due to the specific breeds in specific waters; however it still remains a traditional sector on various small islands, often due to limited resources and fish stock. This indicates that not all spatial features can be integrated into higher spatial organization. Similarly, the economic aspects can also offer dialectical reasoning for cultural, social and political points of view.

### *Connectedness and connectivity*

Connectedness issues on a small island and within its communities not only concern the level of established linkages but also relate to the extent of accessibility and communications under the constraints of scale economies, micro-climate, and spatial reach of networks (Moulaert and Delladetsima, 2000). Connectivity, on the other hand, is defined as indicating the extent and influence of those relationships and transformations within the networks, in a forward-looking manner.

By virtue of their physical characteristics, small islands are often poorly connectable to external markets and other production and distribution systems. Efficient logistical communication linkages provide an opportunity to take advantage of economies of scale, bypassing the confines of being an island. This option also offers a number of growth initiatives in terms of promoting local production as well as developing the service sector. In another dimension of connectedness, local environment, micro-climate and atmospheric conditions also tend to affect the level of connectivity. Seasonal tides, wind directions, and sea conditions at different times of the year may restrict transportation linkages, and hence the accessibility (Eurisles, 1996). Some of the climatic features may also become an asset as well as a hazard. For example, despite the fact that some of the hot springs on small islands (just like any other place on the mainland) may have relatively higher radiation levels that are potentially dangerous for humans, many of the areas on small islands with thermal spas and volcanic rocks are successfully serving as micro-sites for scientific research as well as popular tourist resorts.

Another interesting observation would be the role of physical assets in strengthening social and cultural relations. In some cases, the very existence of the sea serves as a

source of connectedness. As Hage and Harary (1996) have exemplified using social network models, most of the islands in the Pacific were not very isolated in the past. In fact they were more connected to other island societies in the times of yore than in the present through kinship and marriage relationships, trade and tribute practices, as well as their languages and histories.

Innovative behaviour of local agents in terms of habits and routines plays a key role in the access, management, and valorisation of new competencies through network relationships (Moulaert and Cabaret, 2006) within and outside the island boundaries. Nature and level of connectivity may vary at different spatial scales in accordance with the specific position of the islands in various large and small socio-economic networks. This, however, is a critical issue as the available options for defining the position of a small island within wider networks are quite limited and may vary in accordance with the nature and objectives of the respective network. In simple terms, Moulaert and Delladetsima (2000) here consider three options: the islands can attach to activities where logistical connectivity would play a minimal role (e.g. the service sector), integrate into larger socio-economic networks (e.g. large industries) as one of many nodes, or favour a more endogenous social and economic development approach by investing and innovating in 'island specific' activities. In many cases these options can be more or less combined.

#### *Local-Global relationship*

The small size often prevents islands from expanding their range of socio-economic activities, making them more vulnerable to the consequences of natural disasters and economic shocks as compared with large territories (Pelling and Uitto, 2001), although vulnerability here remains a relative term which can also be exploited as an opportunity (Baldacchino, 1999b). Hence, islands are generally advised to take advantage of the opportunities for diversification of socio-economic development activities from the globalising trends (Commonwealth, 1997). Noailly et al. (2009) have given consideration to the role of cooperation in local-global interactions using game theory, to identify the importance of local interaction and social learning based on indigenous information and resources. However, the fact remains that for small islands although greater socio-economic openness may, at times, help achieve socio-economic development, it may also leave them susceptible to large external economic shocks (Easterly and Kraay, 2000) and can lead to various dimensions of local-global

tensions (Moulaert and Delladetsima, 2000). In such situations, socio-economic relationships, and community, trade and political institutions play a key role in local representation. Three major issues can be identified here.

First, the 'fordist' patterns of industrialisation, commerce and tourism that are generally invoked to account for labour market fluctuations, mass production and consumption patterns, and problems related to waste generation and deterioration of local resources. With the post-modern trends promoting decentralisation and local creativity in the development of human activity (Healey, 1997), there is growing awareness of the importance of localities, their physical features and knowledges, and the need to preserve them. More and more regional and local island authorities, therefore, are becoming aware of the need to preserve local resources (Spilanis and Sourbes, 1999); at the same time consumption norms are shifting towards health food, alternative forms of tourism (Spilanis and Vayanni, 2004), small-scale sustainable management (Briassoulis, 2002) and reproduction of local assets (Koroneos et al., 2004).

Second, tensions related to 'globalised culture' (Roca and Oliveira-Roca, 2007) are of primary concern to small island communities. The culture of a community incorporates the shared practices, expectations and beliefs (Sahlins, 1976) that are passed-on in the form of accumulated – especially tacit – knowledge. The cultural character of an island reflects much more than a constellation of its communities. Hence, there is growing awareness of the need to preserve the culture base of small islands in the context of an ever increasing influence of globalised culture on local populations. This situation also provides an opportunity for small islands selectively to become part of international ethical social-cultural movements (Mayor, 2004).

Finally, small islands and their communities possess relatively stronger identities that may occur at individual to collective levels; and at local to national scales. The situation potentially worsens when the islands have to rely increasingly upon various forms of socio-economic assistance from the outside. Hence, the evolving status of islands and their regional identities (Nutley, 1979) can lead to various forms of socio-economic innovation as well as the revival of such traditions and norms that are more in tune with local structural sustainability (Moulaert and Delladetsima, 2000).

The issues of globalised fordist production/consumption, the widely promoted globalised culture, and mere physical isolation call for the necessity of a dialogue between the aspects of insularity and connectedness. The degree of insularity and

connectedness can be described as the extent of linkage between islands in space and time (Zwier et al., 1995). However, it is important to understand that the effects and intensity of the local-global tensions are also relative to the spatial location and size of an island. Crete, for example, as the largest Greek island, is widely exposed to local-global tensions due to its geographic location, whereas its large size allows for the existence of various tourism related factors (Konstantinos, 2004). As a result, it attracts large numbers of tourists, has a strong shipping industry and accommodates many other related global economic activities, while suffering at the same time from the problem of seasonal fluctuations (Konstantinos, 2005) and brain-drain etc. On the other hand, in a peripheral region such as the North Aegean, with islands spread over a wider geographical area (3,836 square kilometres.), local-global tensions play a different role in determining the context of insularity and connectedness. Consequently, development strategies would need to be aimed at utilising local assets (as in the case of Chios, promoting local product gum-mastic, a peculiar variety of which is produced only in southern part of the island) and valorising regional insular features (as in the case of Lesvos, promoting products from other islands of the prefecture as well). This poses a challenge to planning and policy, as shown in Figure 1. However, the idea here is to identify strategies that could integrate small islands into global economies. Global potential here could refer to a) potential to develop an existing island community/economy through better integration into the global economy and society; and b) the potentialities out there in the world that could be useful for island development. One such example is the integration of the Ouzo Distillers' Union of Mytilini (EPOM) in Lesvos with the French multinational Pernod-Ricard, which allows it access to the world market for ouzo<sup>1</sup> exports.

### *Role of policies and planning*

The dialectical interaction between insularity, connectedness and local-global relationships have wider consequences for policy and planning issues. As path dependent processes, policy and planning are based on the various aspects of localities, such as their natural specificities, commercial attitudes, industrial trends, and the role of the service sector. Socio-economic, architectural, and ecological

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<sup>1</sup> The island's ouzo production holds 40% share in national market. Most of the famous ouzo brands in Lesvos are distilled using traditional techniques, but using largely imported ingredients.

history in this respect can provide grounds for understanding the success or decline of a region as whole.

The place-specific position of policy and planning for small islands allows taking account of the insularity and connectedness issues as feedback mechanisms for local-global relationship. This interactive relationship is shown in Figure 1:

**Figure 1: Spatial challenges to planning**

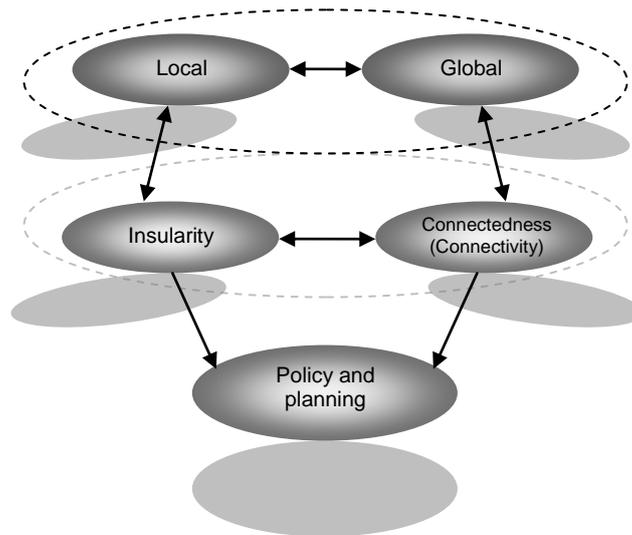


Figure 1 reasserts the linkages between various facets of island features, as discussed previously. Planning and policy perspectives play a focal role in valorising the dialectics between the local-global relationship, physical insularity and the issues related to the connectivity levels of the small islands within various socio-economic networks. Linking it to the earlier discussions in this section, it can be seen that as far as mainstream economic perspectives are concerned, policy makers and planners often consider entering into a broader division of labour as a common recipe for smaller islands, states and regions, thus disregarding local advantages (Célimène and Watson, 1991). In actual, the stress should be on the identification and promotion of local assets (both tangible and intangible), on community habits and the reinforcement of local community networks for social, economic and cultural interaction at various spatial scales, including those that extend beyond the natural and political boundaries, and in this way bring them out of their relative isolation. Talking about the networks here, as the formal networks of interaction expand, the socio-cultural and socio-political relations with the national/regional centres become more important, which

may subsequently lead to variation in the redistribution of benefits among the communities. If, on one hand, this variation triggers healthy competition among island communities and municipalities, it may also deprive some deserving localities that require extraordinary attention but fail to attract proper notice from the planning bodies. For example, in the case of Lesbos with its polycentric structure of communities, smaller historical towns with specialities, like Molyvos (tourism), Kalloni (salt and sardine), Eressos (Sappho, tourism), and Plomari (ouzo) all with strong individual identities, sometimes have to struggle for political and economic attention from the capital Mytilini at the centre.<sup>2</sup>

Another aspect of planning policy concerns the need for modern transportation and communication linkages among and within the insular – as well as the wider – networks (Coccosis and Nijkamp, 1995). From a spatial planning view, this means looking at issues related to the magnitude of population, commodities, and information flows that an island can actually sustain (Moulaert and Delladetsima, 2000). Problems here may relate to the human geography, land-use structure, the real estate and property market, local social relations, technical infrastructure and the management of natural resources. These issues, therefore, raise the need to search for the integrating factors for the features of insularity, connectedness and local-global relationship, with the role of policy and planning as an assimilating element of spatial development on small islands

### **3. Factors of island development**

Factors here are considered to be explanatory variables existing in the form of the available resources, activities, influences and initiatives that shape the past and present of a small island. Analysis of factors generally relates to the implicit and explicit correlations and commonalities within communities; their attitudes, associations, and group dynamics etc. However, an ‘insular’ interpretation of each factor as a meaningful object of analysis is problematic unless the underlying properties and interactions are well understood. Whereas I will synthesise the factors of insular development later in this section, first I aim to provide an intermediate summary of the factors that are relevant, potentially or effectively, to the island’s

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<sup>2</sup> Herodotus termed the town of Mytilini as the centre of culture of ancient Greece in the 7<sup>th</sup> and 6<sup>th</sup> centuries BC when it successfully competed with Mythimna (Molyvos), located in the north of the island, to claim the leadership of the island (Glotz, 1926).

development. These factors are drawn from features of insularity, connectedness, and local-global relationships, against a backdrop of the role of policies and planning as discussed in previous section.

Two general types of factors can be identified here – physical and socio-economic – as interrelated influences that contribute to overall insular development and multilevel interaction. These factors appertain to the central issue of sustaining the socio-economic activities and initiatives in a small island setting:

As regards the physical factors, the need to consider the physical appearance and existence of some limiting factors arises from the relatively limited resource base available to small islands. These factors are vital for the reproduction of insular systems and influence future courses of action. In the short run, there is a narrow scope for adjustment paths whereas in the long term, the islands (and their networks) may consolidate such factors for the common well-being. The geography of an island, for example, establishes its strategic importance along major routes of spatial configurations, political and economic significance (Royle, 2001), while historical specificities determine the role of an island in variable inter-temporal circumstances. Similarly, insular wildlife, marine resources, and abiotic factors such as specific geology, local climate, and ecosystems provide islands with opportunities to determine their place within local-global dynamics either to preserve their heritage or open themselves to global market forces (e.g. tourism). Another vital means to this end is the interaction of island communities across regions, archipelagos, or with the mainland. Their aggregate resource base also shapes the position and level of interaction at various spatial scales.

The socio-economic types of factors indicate the way a correlation of various social and economic factors can offer new dimensions to insular development. Different categories of these factors, independently or in variable proportions, can play a variety of roles in stimulating island development. The political and economic position of an island and its communities within the wider networks can enhance the respective ability to utilise the natural benefits and productive resources, just as Chios has historically earned reputation for its peculiarly local gum-mastic produce (Galani-Mutafi 1993), while Lesvos' olive oil has been internationally recognised for its natural ingredients. The culture of cooperatives in the North Aegean region is a good example of how local initiatives can later become part of the wider cultural landscape and social norms. Subsequently, insular path dependence and relative connectedness

indicates how these sustained norms and routines are influenced by the historical trajectories.

The above categorisation of the factors of island development is helpful in identifying the development options open to small islands by appreciating the available choices and exploitable capabilities of local agents and by satisfying their aspirations within the spatial boundaries set in the insular cultures and economies. The following section looks at the spatial perspectives of development options for small islands.

*An inquisitive synthesis of island features and factors*

From the discussion so far, it can be asserted that analysis of the factors and features of island development requires careful theoretical interpretations of each factor category and its role within the wider frameworks of spatial networks. To put it simply, two kinds of features – active and passive – can be identified within an insular ‘local’ perspective. While the active features are those that play a vital role in insular survival, development, and networking, passive features remain available to the insular communities for exploitation in the form of historically preserved assets. A good example of the latter would be the archaeological and architectural assets as well as the mineral deposits and unaltered nature that quietly remains preserved as part of insular knowledge and heritage, unless lessons are learned from the past and new strategy and policy perspectives are devised through historical learning. The active features are more in the shape of the prevailing habits and routines of the communities, in the manner of fishing practices, socio-economic traditions, cultural norms, and social relations. These active features combined with factors from outside contain the potential to transform into factors of insular development. And this transformability largely depends upon the role of insular actors/agents and their networks within the set of available resources. The spatial interaction of insular communities in various forms serves as one of the determinants to the factors of island development. The systems of insular societies, while serving as miniature spatial laboratories (Meistersheim, 1999) of development issues and initiatives, also provide an interesting example of the organic metaphor in a given environment. And within the agency-network configuration, these communities offer remarkable examples of connectedness to the other regional communities, institutions, and the outside world.

#### **4. Spatial interaction and island development**

Until this point, the argument has revolved around the nature of island development and the issues of insularity, connectedness and local-global relationship, and has led to the identification of various specific and interrelated features and factors of island development. In order to move the analysis towards the spatial interaction and development perspectives, it is important to have a better grasp of the links between mobilisation of available resources on one hand, and the role of insular agents and their networks within the respective mobilisation frameworks, on the other. These are essential for the analysis of reproduction of local (island) communities and institutions within the development dynamics. Agency here is considered in terms of the bottom-up processes in relation to the top-down processes, referred to as structure (Fuchs and Hofkirchner, 2005).

I will now look at spatial development from the perspective of collective agency, planning and policy on the part of insular communities and institutions, and the development role of various assets that are bestowed by nature, culture and history on a small island. Path-dependent initiatives from local actors and leading agents – individual or collective – feed or stir the evolution of insular societies as learning organisations. Valorisation of historical and traditional social and cultural knowledge of available resources can also help in the development of specific skills (Katsikis et al., 2004). These are determined by social forms of economic organisation, the cultural identity of people in their own places, and sets of institutions governing such relationships. Sufficient understanding of the consequences of socio-economic interactions between communities, institutions and their (social, cultural and economic) networks on an island, as well as the respective abilities to learn from domestic and external processes of change can help in understanding why the pace and nature of development differ among communities despite identical social, economic and natural insular conditions.

##### *Role of leading agents*

While the focus here remains on the North Aegean islands of Lesbos and Chios, it does have obvious implications for small islands and states across the globe. Particularities may differ, but the general principles of socio-cultural interaction, economics, and the indigenous knowledge and resource management are similar; and

their pertinence to modern problems of socio-economic development and interaction is just as plausible.

Island communities provide examples of learning organisations with evolving social, cultural and behavioural norms,<sup>3</sup> through continuous processes of mutual interaction and passing on of knowledge etc. In terms of socio-economics, local initiatives taken by various actors and institutions serve as key factors for insular relations; examples are cooperatives<sup>4</sup>, professional associations, local development societies, and local authorities as well as leading agents in respective communities. Apart from these, any planning initiative for the management of insular assets would also attract the attention of local residents as well as the entrepreneurs. For example, with the widening economic development activities and opening of national borders in EU, the scope of investments has spread across the spatial scales, and from commercial and industrial activities to real estate (Herzfeld, 1999). This leads to the possibility that non-resident land owners may represent a considerable proportion of those with property rights on a small island. In the majority of cases, shares in major tourist resorts on a number of small islands are held by national and international groups of entrepreneurs (Konstantinos, 2004). In such circumstances, an uncoordinated character of land-use may result in property-rights conflicts, as in the case of public opinion on the area surrounding Kalloni Bay in Lesbos, emerged from the study on developmental scenarios as perceived by various stakeholder groups and individuals (Kontogianni et al., 2001). This implies that any policy prescription of insular development should consider the benefits for a whole range of stakeholders from native citizens to foreign investors. In general, foreign investors may also include island emigrants who intend to maintain family ties or personal attachments, and become part of insular social relationships.

#### *Spatial interaction: Island communities and institutions*

Historically generated institutions and persistent patterns of relationship determine the development path of an island. Their evolution is commonly distinct from that on the mainland, as they retain a strong allegiance to place and culture (Beller, 1990), often

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<sup>3</sup> “Formal norms (contracts, property rights, laws, constitution) and informal norms (behavioural norms, implicit agreements) play a part in structuring the opportunity space of agents as well as their social, political and economic interaction space.” (Moulaert and Cabaret 2006: 56)

<sup>4</sup> Kropotkin (1902) considers guilds as a source of connecting territorial units (such as village communities).

based on identification with an intertwining of land and sea. However, exogenously driven social, economic, political, and technological forces do affect these relations (Brookfield, 1990). In terms of the development of insular settlements and communities, the extent of connectivity indicates the influence of relationships and transformations within the networks, across time and space. The examination of the nature of different institutional frameworks at various spatial scales can also help explain the interaction between the different factors in generating the policy outputs, as well as the development of insular communities. Four types of spatial interactions can be identified among various actors within insular networks, as given below:

1. Interaction within the communities and institutions: At this stage, the very basic element of insular communities and social institutions appears to be the importance of family and kinship relations as the holders of distinct knowledge passed through generations. With the emergence of leading agents from political, social and religious institutions and large families and clans (Newman and Dale, 2005), the sense of communal identity prevails at this scale. Social networks<sup>5</sup> here, according to Barnes (1954), denote linkages among the individuals and groups. These linkages may encompass kinship, friendship, authority, or just a simple interaction. In terms of multi-scalar interactions, this scale defines self-esteem, participation, individual and group-potential, and bottom-up initiatives.

2. Interactions between various communities and settlements on the island: An island itself is regarded in this context as a system of communities reflecting the population distribution and the levels of development. Urban centres here serve as sources of mutual social, cultural and economic interaction to bring together towns and communities of the island, which may otherwise differ in terms of physical and social environment and productivity. In terms of social networks, such integration of communities leads to an integrated combination of local knowledge, religious beliefs, polity dynamics and identity while providing a rich mix of endogenous and external social and economic resources. Zontanos and Anderson (2004), through comparative analysis of two competing olive oil producers in a small Greek village, conclude that networking is primarily a social activity that involves becoming embedded in the community, building a reputation for usefulness and establishing trust. The linking activities within such networks also help to establish further useful external linkages.

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<sup>5</sup> The term 'social networks' was first coined by J. A. Barnes (1954) in a study on a Norwegian island parish.

3. Interactions between the islands belonging to the same archipelagic or regional network: This kind of interaction takes place among the social, cultural, political and economic institutions of different islands that may share similar geographic, administrative and/or political identity; this has been observed as a growing tendency within local and regional initiatives in socio-economic and development related concerns (Spilanis, 1991). However, such interactions also reflect the geopolitical dependence of the insular networks. Apart from formal initiatives, there are informal group activities in the social, economic and planning sectors; these affect working relations and general agreements on the scope, aims, and institutional processes leading to any collective action and policy output with a territorial point of view, whilst taking into consideration any spatial and natural constraints that characterise the common insular environments. Multi-scalar interaction at this (regional) level can be associated with sustainability, decision making, resourcefulness, minimal external dependence, and equality, both up and down the stream.

4. Interactions with other regional, national, and international centres and institutions: Interaction at this scale defines a multiplicity of the relationships with other regional, national, and international social, economic and political institutions. Equally significant at this scale are the local entrepreneurial skills, and the role of leading agents, as well as the value of contemporary and historical insular spatial assets and features. International network linkages today particularly define distinctive cultures beyond national boundaries, and as reflected in the form of flexible production and consumption systems (Scranton, 1991), whereas the accelerating pace of innovation threatens to marginalise small islands from such networks. In this respect, Spilanis (1991) identifies, as contradictory issues, the growing tendencies of homogenisation of economies, cultures, and political systems in the form of globalisation. Development aims at this scale can be related to socio-economic capacity, efficiency, technology, diversification, and welfare, whereas policy network issues can provide a means of stability and can demonstrate similarities across nations and sectors where various formal institutional processes exist, but may not explain policy transformations, development and consolidation of a network state and society.

## **5. Conclusion**

This paper has analysed perspectives to understand spatial island development and interaction characteristics and strategies, and to calibrate the theory and development

policy and planning issues for small islands regions and developing states. This has been done through the interactive frame of insularity, connectedness and local-global relationships. Small islands offer appealing examples of constellations of communities bound together by social cohesion, traditions and cultural norms. Their relative progress and survival reflect their indigenous abilities to resolve natural and artificial complexities through path-dependence and spatio-temporal learning. In most of the cases, active participation of island communities in contemporary socio-economic networks also signifies the capabilities of local actors/agents to utilise insular assets and combine them and interact using the opportunities stemming from the outside (connectivity).

The outlook on insular features and factors is indicative of how development on small islands should be analysed. It also raises a question of how a combination of these features makes islands react differently to various events (such as war, peace, natural and economic disasters). Classification into four spatial scales of interaction for island communities is a helpful device to identify the importance of leading agents, social/economic networks as well as the potentials for participation and engagement at each level of interaction. However, there is still a need to sort out the analytical categories and theories that would put insular features and factors in a framework that would integrate the evolutionary reproduction of such aspects as adaptation, selection, and routinised behaviour on one hand, and the dynamics of development and interaction such as cooperation, institutional learning and path-dependence etc. among the insular communities on the other, into a broader theory of multi-scalar territorial development.

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