

AUGMENTING COMPETITIVENESS OF CITIES THROUGH TOURISM PLANNING: THE ROLE OF COLLABORATIVE DECISION SUPPORT SYSTEMS

Tan YIGITCANLAR
Queensland University of Technology, Australia
tan.yigitcanlar@qut.edu.au

ABSTRACT

Many cities around the globe are now considering tourism facilities and their remarkable revenues in order to become competitive in the global economy. In many of these cities a great emphasis is given to the cultural tourism as it plays an important role in the establishment of creative and knowledge-base of cities. In such context, integration of new concepts and technologies into the tourism planning process to increase the competitiveness of cities' cultural assets gains greater significance. This paper, therefore, introduces sustainable urban development, participatory decision-making, and planning decision support systems approaches in tourism planning, particularly cultural tourism, to augment competitiveness of cities. As the primary tools of a planning decision support system, the paper introduces geographic information systems and web-based technologies that are useful and important in supporting tourism planning and management. The paper also proposes a new 'community-oriented decision support system' for tourism planning and development. or cultural tourism.

INTRODUCTION

Cities a Technological advances and social changes are among the characteristics of the twenty-first century cities. In the third millennium, the scale and speed of urban transformation have created new political, economical, and social realities that have fundamentally changed the role of cities. Due to globalisation and the knowledge economy, urban centres are now linked electronically, by various information and communication technologies (ICTs), with hundreds of other urban centres and millions of citizens both within their geographical confines, and around the world. In this knowledge era, cities that become productive and efficient are turning into centres of surging economic activity, and cities that grow inefficient and unable to compete are shrinking. In order to become competitive in the global economy, cities need to consider tourism facilities and their remarkable income. Globalisation has been the buzzword of the 1990s and continues its popularity throughout the third millennium. The global compression of time and space and the increase in a reflexive global consciousness has clearly been integral to the expansion of international tourism (Durmaz et al. 2008a).

Tourism exists as a powerful economic force in the support of local communities and global markets. At present, tourism activities comprise the world's largest industry with over three trillion dollars in revenues produced. Tourism is implicated in identifying issues through a process of differentiation. The differentiations that are performed in the global space of tourism are vital to the formation and deployment of local identities. Tourism is a contemporary export industry, whereas traditional export industries move goods to the consumer, but tourism brings the consumer to the place. It realises this by producing the local assets for export. Some types of tourism, such as large amusement parks (i.e. Sea/Movie/Disney World), are largely independent from the culture of the places on which they are located (Gimblett 1996:2). Others types focusing on cultural values and assets are strongly predicated on the presence of the locality, and only a successful tourism planning can preserve and market the uniqueness of these places (McKercher and Du Cros 2002; Mason 2008; Ivanovic 2009).

Tourism planning is widely viewed as a way of maximising the benefits of tourism in a locality and mitigating problems that might occur as a result of development. It is also a continuous process, which seeks to optimise the potential contribution of tourism to human welfare and environmental quality. Tourism is an economic sector that is sensitive to changes in politics and economy or even in fashion (Durmaz et al. 2008b). Therefore, planning policies need to be evaluated considering both exogenous changes and indigenous dynamics. The preparation of a plan monitoring system allowing periodic review and revision of the tourism development plans is an essential requirement of a sound tourism planning process (Pearce 2000). This is mainly because of places with carefully planned development are likely to experience a high rate of success in terms of tourist satisfaction level, economical benefits, and minimal negative impacts on the local social, economic, and physical environments. During the course of time tourism planning significantly evolved from a narrowly focused form of physical planning and unsighted promotion to a more balanced form of planning that recognises the need for greater environmental sustainability and community involvement (Timothy 1999; Becken and Hay 2007). Tourism development plans vary in scope, scale and approach, as a result a significant body of literature on the methodology of tourism planning has been developed over the past few decades (Kamra 1997; Sandiford and Ap 1998; Pearce 2000). The recent literature demonstrates the necessity of sustainability and increased collaboration in the tourism planning process (Hall 2008). It also highlights the impacts of tourism on ecology and community development (Keogh 1990; Hunt 1991; Long 1991; Jamal and Getz 1995; Sautter and Leisen 1999). Additionally, rapidly advancing ICTs such as geographic information systems (GIS) and Internet are also utilised for tourism planning to benefit from their accuracy, visualisation, analysis, data handling and sharing capabilities (Gobbetti and Leone 1996; Hanna and Millar 1997; Moghrabi 1997; Bahaire and Elliott-White 1999; Harrison and Winterbottom 1999; McAdam 1999).

In order to augment competitiveness of cities through cultural tourism, this study proposes the employment of sustainable urban development, community involvement, and planning decision support systems approaches into tourism planning mechanisms. As tools of a planning decision support system, geographic information systems and web-based technologies are very useful and important in supporting tourism planning and management and sustainable urban development. Therefore, a new 'community-oriented decision support system' is presented in this paper as a model for successive tourism planning and development, where the model accommodates aforementioned technology tools. This model also incorporates sustainable urban development (Teriman et al. 2009) and community building principles into the tourism planning process and will undoubtedly help cities' competitiveness in the global tourism market, support preserving their assets, uniqueness and identity, and assist them in shaping their future.

NEW APPROACHES IN TOURISM PLANNING

Social, cultural and environmental aspects of tourism have received relatively less attention than economic concerns in planning. Governments, which request for technical assistance invariably, have an underlying agenda of maximising economic benefits (McKercher and Du Cros 2002). The socio-cultural and environmental implications are often overlooked despite the integral role of the physical environment and the social setting to tourism marketing. In the early 1990s popularity of sustainability has increased in virtually all areas concerning economic activity, social development and the environment. Travel and tourism are not immune to this trend. Internationally, the Hague Declaration on Tourism and the GLOBE'90 Action Strategy for Sustainable Tourism are among many others that have set out general criteria seen as necessary to attain this new paradigm. To achieve sustainability, the tourism industry must go much further than the somewhat fashionable greening of tourism products: partnership, integration, community involvement, and environmental stewardship are the new orders of the day (Godfrey 1998). Recently, environmental and socio-cultural considerations are examined more seriously, and the link between tourism and sustainable urban

development has received growing endorsement (McKercher and Du Cros 2002; Ivanovic 2009). The tourism industry has entered a new phase of sensibility, with many tolerances in principal or even active supportiveness of the concept (Becken and Hay 2007).

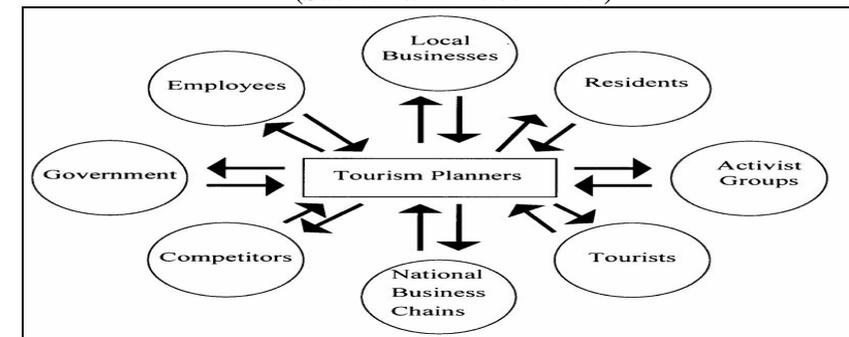
Sustainable tourism is about asset management, where development and activity guarantees the integrity of the resources on which the industry is based on, while maintaining economic viability. Its long-term goal is to enable a comprehensive development process; where products draw from, and add to, the quality of local resources, based on a sound understanding of market demand and motivations; where tourism development takes place within the context of all socio-economic development, with tourism options considered alongside other land-use development options; and where the local population is involved in planning and management decisions, with costs and benefits fairly distributed among tourism businesses, promoters and the host community (Godfrey 1998). Sustainable tourism is thus not an end in itself, nor a unique or isolated procedure, but rather an independent function of a wider and permanent socio-economic development process. Sustainable tourism could also be a major source of revenue for self-financing of natural areas and growing interest in nature-based or eco-tourism all over the world (Weaver 2002). It is a major means of self-financing of natural sources and protected areas. In terms of cultural tourism, sustainable development contributes to the conservation of archaeological, ethnographical or current socio-cultural assets of a locality or society (McKercher and Du Cros 2002; Hall 2008).

In many parts the world, residents of a tourism destination have little, if any, voice in the developmental process of the tourism function, as a result they can only react to its consequences on their home environment. Therefore, tourism industry is often criticised for its imposed planning decisions on the local population from outside groups or planning bodies. It is commonly accepted that tourism's impacts are most apparent at the level of the destination community; researchers have started to emphasise the need to decentralise planning and to integrate it into broader community-oriented development objectives (Long 1993; Prentice 1993; Simmons 1994; Timothy 1998). Moreover, greater levels of public participation in tourism development have been heralded by many

planning specialists (Inskeep 1991; Gunn 1994; Timothy 1999).

In recent years, there has been a shift in tourism planning moving away from formal and rigid methods towards more flexible, iterative processes for creating and implementing strategies. It is argued that these continuous processes are more responsive to changing circumstances and should involve ongoing monitoring, evaluation, learning and adaptation. Increasing emphasis is also being placed on tourism planning involving the multiple stakeholders affected by tourism, including residents, public authorities and business interests, so that they may collaborate to develop a shared vision for tourism (Ritchie 1993; Jamal and Getz 1997; Yuksel and Bramwell 1999). Continuous tourism planning process can allow for the involvement of stakeholders in the formulation, implementation and adaptation of decisions. Continuing community involvement means that planning can respond on an ongoing basis to stakeholder views on tourism issues, proposals in plans, and on plan implementation. Typical stakeholders in a tourism planning process are presented in Figure 1.

Figure 1.
Stakeholders in Tourism Planning Process
(Sautter and Leisen 1999)

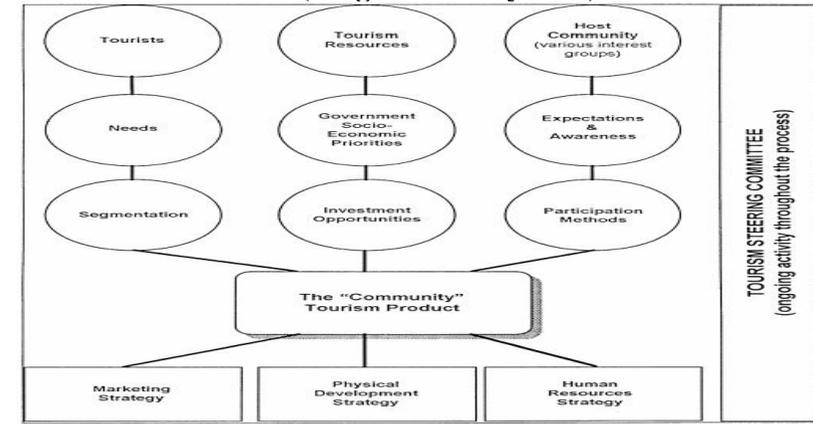


There are many different and effective techniques for achieving host community involvement in tourism planning, including drop-in centres, nominal group technique sessions, citizen surveys, focus groups, citizen task forces, consensus-building meetings. Community involvement generally refers to empowering local residents in determining their own

goals for the development, and consulting with locals in determining their needs and concerns from tourism. Sound tourism planning also includes involvement of stakeholders, interest groups and the public in decision-making. Increasing income, employment, and education opportunities for locals are effective incentives to get community members involve in the tourism planning and development processes.

Most characteristics of community-oriented tourism planning are derived from trans-active and advocacy planning traditions, wherein weak interest groups are defended and local residents are given more control over the social processes that govern their welfare. This approach has recently received remarkable attention in the literature in response to the obvious shortcomings of the traditional economical emphasis on tourism development. Community-oriented tourism planning recognises that social and environmental considerations need to be included in planning decisions and that tourism should serve both for tourists and the local residents. Host communities, as their right, should have a voice in shaping their futures and extended involvement of the host community is obligatory for maximising socio-economic benefits of tourism for these communities. Community demands for active participation in the setting of the tourism agenda and its priorities for tourism development and management cannot be ignored. Community-oriented tourism planning requires finding ways of creating more workable partnerships between the tourism industry and host communities as well as developing facilities both for host and guest. A sample framework for community-oriented tourism planning process is presented in Figure 2.

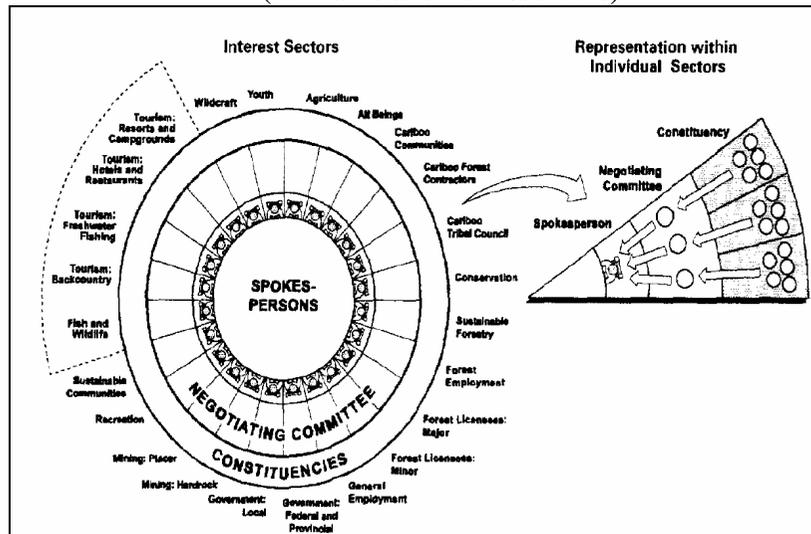
Figure 2.
Community-oriented Tourism Planning Process
(King and McVey 2000)



Host community involvement and shared decision-making have also important roles to play in sustainable tourism, land use planning and management (Weaver 2005). They offer potential to involve affected interests such as tourism in decision-making, enhancing communication and understanding among participants, promoting institutional reform such as interagency collaboration, and driving the collection and application of information in accordance with the interests and values of participants. Even in cases that consensus is not achieved, these approaches offer potential to lay a foundation of trust and understanding which may help future conflicts involving tourism stakeholders and other interest groups be handled more effectively (Williams and Penrose 1998). Therefore, organisation of the negotiation process has key importance in a successful tourism planning. An example of such negotiation organisation process flowchart is presented in Figure 3 below.

Figure 3.

Negotiation Organisation in Tourism Planning (Williams and Penrose 1998)



data or even beyond as techniques for interpolation of finer scale data. Most GIS provide a static view of the world or a sequence of snapshot images, in such a way that full potential of space-time models remains unrealised. But with rapidly advancing technology, the level of realism of GIS is likely to increase, to become film-like and indistinguishable from 3D-media representations of the real-world (Cole 1997).

GIS, remote sensing and modelling techniques together with ground-based surveys, are now used to assess potential impacts of the development on the tourism sector and evaluate ecological and socio-economical situations. In addition, GIS is an efficient and effective means of helping various stakeholders examine the implications of land-use decisions in tourism development. Although GIS is rarely discussed in the context of tourism, its widely used by planners concerned with environmental issues and resource management. GIS has been used to analyse tourism related issues such as the perception and definition of wilderness, countryside management and travel costs (Berry 1991; Robinson 1992; Kliskey and Kearsley 1993; Haines-Young and Bunce 1994; Bahaire and Elliott-White 1999).

TECHNOLOGICAL INNOVATIONS FOR TOURISM PLANNING

Geographic Information System (GIS) is a computer-based powerful set of tools for collecting, storing, retrieving, mapping, analysing, transforming and displaying spatial and non-spatial data from geographic world for a particular set of purposes that varies for each discipline. GIS technology integrates common database operations such as query and statistical analysis with the unique visualisation and geographic analysis benefits offered by intelligent maps. GIS is used to combine physical, social and economic information collected through surveys and raster information, such as ground cover data remotely sensed from satellites. Selected layers of map objects representing vegetation, buildings, roads, coastlines may be superimposed on social territories such as counties and census tracts as to identify overlaps. Much GIS software has the capability of focusing in and out of its representations to the limits of the

Decision-making in tourism development and planning is becoming increasingly complex, since organisations and communities have to come to terms with the competing economic, social and environmental demands of sustainable development (Weaver 2005). GIS can be regarded as providing a toolbox of techniques and technologies of wide applicability for the achievement of sustainable tourism development. Spatial or environmental data can be used to explore conflicts, examine impacts and assist decision-making. Impact assessment and simulation are increasingly important in tourism development, and GIS can play a role in auditing environmental conditions, examining the suitability of locations for proposed developments, identifying conflicting interests and modelling relationships (Bahaire and Elliott-White 1999). The use of GIS in sustainable tourism development and planning demands the development of indicators of sustainable tourism development and these provide more and better data. GIS provide a set of tools, which can be used for tourism planning and development (Yigitcanlar et al. 2008a). GIS application in sustainable tourism planning is increasingly

recognised and can be used to address some of the problems of tourism.

GIS applications may help in several routine tasks in tourism planning: Data access and routine work; Data integration and management; Resource inventory; Area designation and map overlays; Comparative land-use and impact analysis; The analysis of visual intrusion, and; Community involvement and participation. GIS applications can also provide at least three different types of information. Tourism asset maps enable planners and stakeholders to analyse the resource set to identify what and how much is available and where they are (both natural and cultural assets) located. It helps planners and managers determine the capability of an area for the creation of new tourism products or services, and identifying locations suitable to tourists and tourism. Tourism use maps enable planners and stakeholders to analyse the resource set to evaluate land-use options and identify zones of conflict or complementarities, such as access points, water, wildlife habitats. Tourism capability maps enable planners and stakeholders to analyse the resource set to monitor tourist resources at risk due to management, planning decisions and other sectors (Bahaire and Elliott-White 1999). In addition, GIS offers considerable scope for sustainable tourism planning and development, whether this follows eco-tourism or sustainable management paradigm. Developments of GIS and associated technologies (i.e. GPS, remote sensing, and wireless technologies) are seen as the means of improving decision-making in tourism planning, by making information more accurate, accessible, meaningful and usable (Yigitcanlar 2005).

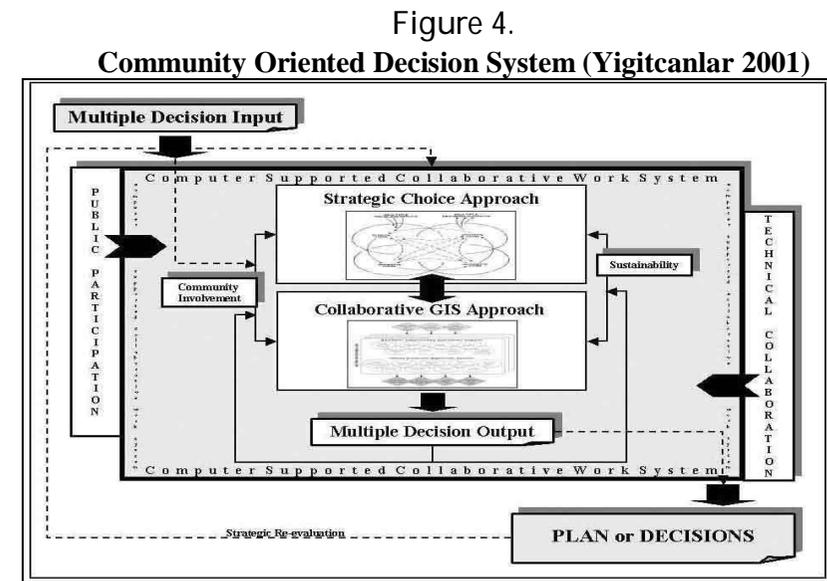
With the continuing growth of the Internet, in particular the World-Wide-Web (web), there now exists a new marketing potential for tourist regions (Yigitcanlar 2006). It was predicted that at least 20 percent of shopping would be carried out electronically by the end of year 2010 (Hanna and Millar 1997). It is important to keep in mind that the Internet reaches global audience. The web has been hailed in the popular press as revolutionary medium of communication for the third millennium. The web is opening up new forms of computer-mediated communications, allowing for new forms of information dissemination, social interaction

and collaborative working. The web has garnered far ranging interest from those of us interested in the representation and analysis of geographic information. It is seen as an exciting medium for numerous reasons: it can be accessed by a global audience, on almost every computer platform, and does not require expensive software or specialist training to use. The multimedia capabilities of the web have made it a medium in which visual representations – images, maps, diagrams, and graphs – are as easy to implement as text. A decade ago, cartographers, planners and other experts began using the web to display static maps, and some low levels of interactivity could be added to the maps by using image maps – click-sensitive areas of the map which could hyper-link you to other maps or materials (Krygier 2001). GIS vendors and spatial data providers have realised that the web is the next-generation GIS platform, providing a powerful medium for geographic information distribution, as well as a particularly lucrative new market to exploit. Internet GIS activity is facilitating innovative development in the dissemination, visualisation and analysis tools for planners of the built environment. In the last few years a series of technologies has matured, web-based mapping and GIS are now commonly found on the web (Yigitcanlar 2008).

Distributing geographic information via the web allows for real-time integration of data from around the world (Yigitcanlar and Gudes 2008). Internet Map Server is the solution that provides a common platform for this exchange. With an Internet Map Server, such as ESRI ArcIMS, people can access resources on the web for more informed decision-making. Internet Map Server lets users exchange, integrate and analyse data in new ways. Users can combine data and information accessed via the Internet with local data for display, query and analysis (Yigitcanlar and Saygin 2008). Internet Map Server establishes a common platform for the exchange of Web-enabled GIS data and services. Internet Map Server is a framework for distributing GIS capabilities via Internet (Yigitcanlar et al. 2008a). As a publishing technology, Internet Map Server features unique capabilities for supporting a wide variety of GIS clients (Yigitcanlar et al. 2008b). Internet pages that are concerning tourism generally offers information on a variety of categories, including travel, geography, contact details for local tourism information centres, reservation services and event calendars (Gudes et al. 2009).

COLLABORATIVE DECISION SUPPORT SYSTEMS

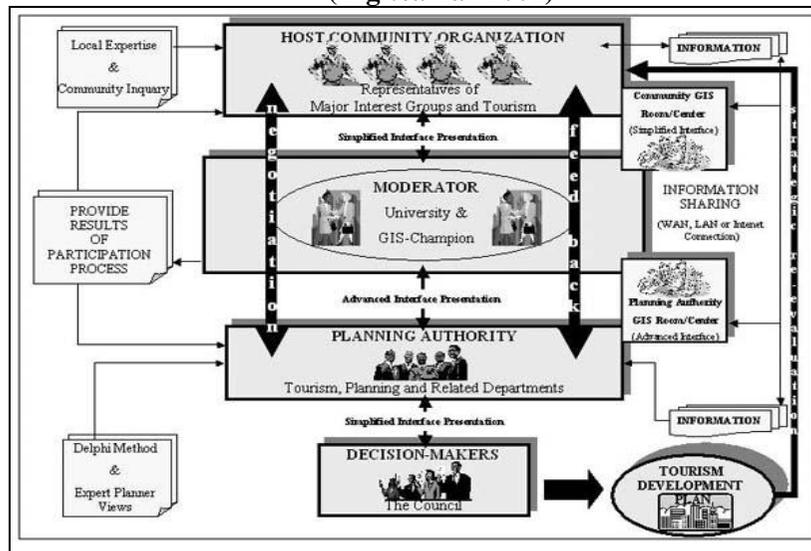
Planners and decision-makers have to consider new paradigms and innovative technologies for achieving harmony between development, community and environment. GIS can be a useful tool for the pursuits of this harmony, however existing GIS applications need to be customised and new GIS models have to be proposed to meet this purpose. Following the examination of new paradigms and innovative technology applications in tourism planning, now a new GIS model is going to be introduced for successive tourism planning and also for increasing the competitiveness of tourist sites while considering host communities and sustainability. Collaborative or Community-oriented GIS model (CoGIS) is developed as a mechanism to be used for undertaking all of the studies, identifying planning, sustainability and community goals, drawing up the planning guidelines and criteria and collecting data and storing them in the GIS environment. Moreover, the further steps of decision-making, collaboration, participation, negotiation and consensus building are being integrated in itself (Figure 4). Thus CoGIS is a powerful tool to enhance sustainability and citizen participation in tourism planning and development.



CoGIS is a resilient system that it can be easily modified depending on the local needs, level of knowledge, environmental aspects, global market demands and economic situations. The basic process of CoGIS is represented in Figure 5. CoGIS simply follows community-oriented tourism planning process that the process of CoGIS begins with the establishment of a partnership agreement between community and the planning authority. A group from the University acts as a moderator team between these groups. The project continues in coordinated dual GIS Centres in the planning authority and host community organisation centres. With technical collaboration and community participation processes the data and information are shared between all groups. The early results, which are the local needs, pre-decisions and technical features are also compared and discussed in these GIS Centres. In the decision platform, community organisations and non-profit organisations have political powers for defending their local needs, environmental and other aspects. In addition, the decisions are published on electronic media as well as the paper ones for the information and approval of the community (Yigitcanlar 2001). Following this submission, in cases that host community does not accept the decisions or plans, the negotiation

organisation process starts over again until a consensus is set between groups and stakeholders in the tourism planning process.

Figure 5.
The Process of Community Oriented Decision System
(Yigitcanlar 2001)

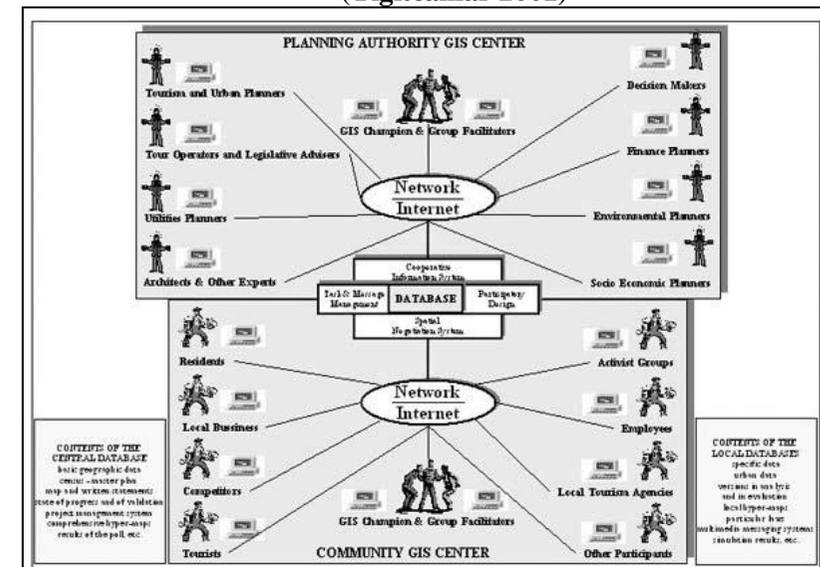


Common outcomes and products of CoGIS are tourism development plans, tourism resource maps, tourism use maps and tourism capability maps in various details and scales. All these maps and plans are published via Internet by benefiting from web-based GIS technology. The system architecture of CoGIS mainly accommodates all of the relational infrastructures between planning authority, community GIS Centres and other external participators. These infrastructures enclose transparent, secure, fast and cooperative network configurations.

Planning authority GIS centre has an organisation that employs a GIS champion, group facilitators, tourism planners, urban planners, legislative advisors, utilities planners, decision-makers, finance planners, tour operators, environmental planners, socio-economic planners, architects and other experts. These technical and decision groups work in

a collaborative manner by using CoGIS in centralised or distributed modes with the educative directions of the GIS champion and group facilitators. Meanwhile, different actors also pursue above-mentioned procedure in the community GIS centre. The actors in the community GIS centre are stakeholders, representatives of major interest groups – residents, local business, competitors, activist groups and local tourism organisations and individuals (Figure 6). These participants occupy with the CoGIS mechanism through the educative directions of the GIS champion and group facilitators. Participants join the decision-making process throughout the centralised or distributed stages (Yigitcanlar 2001).

Figure 6.
System Architecture of Community Oriented Decision System
(Yigitcanlar 2001)



Since most tourism planning problems have spatial or geographical characteristics and tend to be increasingly multi-dimensional and complex, CoGIS applications have been of benefit. For example, adaptation of CoGIS into tourism planning helps in: Planning new

tourism facilities sensitive to the cultural requirements of local people; Protecting the visual integrity of historic sites and places in order to minimise the impact of tourist facilities; Destination dynamics; people-carrying capacities; Tourism impact analyses; Reaching decisions related to environmental impact assessments or audits; Production of environmental statements; Integrated asset (e.g. cultural and natural) management approach, and; Estimation of spatial variation in climatic change. It is likely that projects could be more accurately managed using the techniques and tools found in a GIS environment. CoGIS offers powerful tools for providing information to support decision-making in sustainable tourism planning and management, and promotes integrated management of resources based on sensitivity and the needs of host communities and visitors. CoGIS helps in constructing a healthier relationship between guests and hosts and shows respect to the environment. Therefore, it can be used as an efficient tool for increasing competitiveness of tourism destinations in the global tourism market, including cultural tourism.

CONCLUSION

Along with the recent technological advances, social changes and globalisation, tourism incomes of the world cities have become a noticeable amount that might be able to cover a large portion of the development and management expenses of these cities. Therefore, increasing the competitiveness of tourism destinations has become an important issue for cities to augment their share in the international tourism market. In augmenting competitiveness of cities tourism planning and particularly collaborative decision-making approaches plays an important role. For that reason central and local administrators and tourism planners should take into account of new concepts, paradigms and technologies in tourism planning practice that some are discussed in this paper (i.e. sustainable urban development, host community involvement, Internet and GIS).

Adaptation of community oriented decision support systems such as CoGIS into tourism planning has numerous technical and social benefits

and contributions to tourism planning and development. These benefits and contributions include: Predicting and examining the possible short and long-term outcomes; Empowering the tourism planning process; Involving ethical issues more than most of the other technology implementations; Supplying equal access to data and information for the users over Internet; Promoting public and private efforts; Improving the capacity to make appropriate use of the analytical tools and data sets in tourism planning; Increasing emphasis on the role of host communities in creation and evaluation of the tourism development plans; Accommodating an equitable representation of diverse views, preserving contradiction, inconsistencies; Promoting citizen participation in host community decision-making; Endeavouring to encourage and empower community-based organisations; Attempting for helping communities maintain a healthy balance of tourism growth; Aiding in conserving cultural identity and enhancing citizen consciousness, and; Helping in bridging the gap between technology and social sciences.

As a concluding remark it can be said that it is very important that all community groups, local administrations and planning agencies should make every effort to possess recent information technologies into the tourism planning process. They should also possess an understanding of its power and limitations so that they can view it from a critical perspective. Adaptation of new decision-support systems like CoGIS into tourism planning is a new effective consideration that shows communities, planning agencies and local governments strategic and advocacy way of shaping their future. Additionally, it should not be forgotten that the success of tourism planning with a community-oriented system depends, apart from being well designed and willingness, on the appropriate quartet of technology, culture, economics and politics.

REFERENCES

Bahaire, T. and M. Elliott-White, (1999). The Application of Geographical Information Systems in Sustainable Tourism Planning: A Review. *International Journal of Sustainable Tourism* 7(2): 159-174.

Becken, S., and J., Hay, (2007). *Tourism and Climate Change: Risks and Opportunities*. London: Channel View Publications.

Berry, J. K., (Ed.) (1991). *GIS in island resource planning: A case study in map analysis*. Geographical Information Systems. Harlow, Longman.

Cole, S., (1997). Futures in Global Space. *Futures* 29(4/5): 393-417.

Durmaz, B., Velibeyoglu, K., and T., Yigitcanlar, (2008a). Emergence of a creative city: Antalya a film-induced tourism centre, The 4th World Conference for Graduate Research in Tourism, Hospitality and Leisure, 23-27 Apr 2008, Otium Hotel Zeynep, Antalya, Turkey, pp. 552-567.

Durmaz, B., Yigitcanlar, T., and K., Velibeyoglu, (2008b). Creative cities and the film industry: Antalya's transition to a Eurasian film centre. *The Open Urban Studies Journal*, Vol 2008, No 1, pp.1-10.

Gimblett, B. K., (1996). Afterlives. Keynote address for the Performance, Tourism, and Identity Conference, September 1996, The Centre for Performance Research, Wales.

Gobbetti, E. and A. O. Leone, (1996). Virtual Sardinia: A Large-Scale Hypermedia Regional Information System. Fifth International World Wide Web Conference, May 6-10, 1996, Paris, France.

Gudes, O., Yigitcanlar, T., Tal, Y., and Bar-Lavi, Y., (2009). Innovative geography standards for web-GIS portals: case study of the Survey of Israel's Web-GIS Portal. 2009 FIG Working Week: Surveyors Key Role in Accelerated Development, 3-8 May 2009, Eilat, Israel.

Godfrey, K. B., (1998). Attitudes Towards Sustainable Tourism in the UK: A View from Local Government. *International Journal of Tourism Management* 19(3): 213-224.

Gunn, C. A., (1994). *Tourism Planning: Basics, Concepts, Cases*. Washington DC, Taylor and Francis.

Haines-Young, R. H., and R. Bunce, (1994). Countryside Information System: An information System for Environmental Policy Development and Appraisal. *Geographical Systems* 1(4): 329-345.

Hall, M., (2008). *Tourism Planning: Policies, Processes and Relationships*. London: Pearson Prentice Hall; 2nd edition.

Hanna, J. R. P. and R. J. Millar, (1997). Promoting Tourism on the Internet. *International Journal of Tourism Management* 18(7): 469-470.

Harrison, S. J., and S. J. Winterbottom, (1999). The Potential Effects of Climate Change on the Scottish Tourist Industry. *International Journal of Tourism Management* 20: 203-211.

Hunt, J., (1991). *Tourism on our Terms: Tourism in the Western United States*. Western Governors Association, Denver, CO.

Inskeep, E., (1991). *Tourism Planning: An Integrated and Sustainable Development Approach*. New York, Van Nostrand Reinhold.

Ivanovic, M., (2009). *Cultural Tourism*. London: Juta Academic.

- Jamal, T. B. and D. Getz, (1995). Collaboration Theory and Community Tourism Planning. *Annals of Tourism Research* 22(1): 186-204.
- Jamal, T. B. and D. Getz, (Eds.) (1997). *Visioning for Sustainable Tourism Development: Community-Based Collaborations. Quality management in urban tourism.* Chichester, Wiley.
- Kamra, K. K., (1997). *Tourism: Theory, Planning and Practice.* New Delhi, Indus Publishing Company.
- Keogh, B., (1990). Public Participation in Community Tourism Planning. *Annals of Tourism Research* 17(1): 449-465.
- King, B., and Michael McVey. (2000). A Societal Marketing Approach to National Tourism Planning: Evidence from the South Pacific. *International Journal of Tourism Management* 21: 407-416.
- Kliskey, A. D. and G. W. Kearsley, (1993). Mapping Multiple Perceptions of Wilderness in Southern New Zealand. *Applied Geography* 13: 203-223.
- Krygier, J., (2001). World Wide Web Mapping and GIS: An Application for Public Participation” NACIS Cartographic Perspectives: State University of New York at Buffalo, Department of Geography.
- Long, P. T., (1991). *Tourism on our Terms: Rural Community Tourism Development Impacts and Policies.* Western Governors Association, Denver, CO.
- Mason, P., (2008). *Tourism Impacts, Planning and Management.* London: Butterworth-Heinemann; 2nd edition.
- McAdam, D., (1999). The Value and Scope of Geographical Information Systems in Tourism Management. *International Journal of Sustainable Tourism* 7(1): 77-92.

- McKercher, B., and H., Du Cros, (2002). *Cultural Tourism: The Partnership Between Tourism and Cultural Heritage Management.* New York: Routledge.
- Moghrabi, I., (1997). A Multimedia GIS in Tourism. ESRI User Conference, Oct 1997, Environmental Systems Research Institute.
- Pearce, D. G., (2000). Tourism Plan Reviews: Methodological Considerations and Issues from Samoa. *International Journal of Tourism Management* 21(1): 191-203.
- Ritchie, J. R. B., (1993). Crafting a Destination Vision: Putting the Concept of Resident-Responsive Tourism into Practice. *Tourism Management* 14(5): 379-389.
- Robinson, G. M., (1992). Geographical Information Systems and Planning in Scotland: The RLUIS Project and Advances in GIS. *Scottish Geographical Magazine* 108(1): 22-28.
- Sandiford, P. J. and J. Ap, (1998). The Role of Ethnographic Techniques in Tourism Planning. *Journal of Travel Research* 37: 3-11.
- Sautter, E. T. and B. Leisen., (1999). Managing Stakeholders, A Tourism Planning Model. *Annals of Tourism Research* 26(2): 312-328.
- Teriman, S., Yigitcanlar, T. and S., Mayere, (2009). Urban sustainability and growth management in South-East Asian city-regions: the case of Kuala Lumpur and Hong Kong. *Planning Malaysia*, Vol 7, No 1, pp. 1-16.
- Timothy, D. J. (1999). Participatory Planning, A View of Tourism in Indonesia. *Annals of Tourism Research* 26(2): 371-391.
- Weaver, D., (2002). *Eco-Tourism.* London: Wiley.
- Weaver, D., (2005). *Sustainable Tourism.* London: Butterworth-Heinemann.

Williams, P. W., and R. W. Penrose, (1998). Shared Decision-Making in Tourism Land Use Planning. *Annals of Tourism Research* 25(4): 860-889.

Yigitcanlar, T., (2001). Adapting community oriented GIS into tourism planning process for increasing the competitiveness of tourist sites. The International Symposium on Future Cities, 10-12 Nov 2001, The World Bank. Riyadh, Saudi Arabia.

Yigitcanlar, T., (2005). Is Australia ready to move planning to an online mode? *Australian Planner*, Vol 42, No 2, pp. 42–51.

Yigitcanlar, T., (2006). Australian local governments practice and prospects with online planning. *URISA Journal*, Vol 18, No 2, pp. 7–17.

Yigitcanlar, T., (2008). Public oriented interactive environmental decision support system. In *GIS and Evidence-Based Policy Making*. S. Wise and M. Craglia . A. Anttiroiko (Eds.). London: Taylor and Francis, pp. 347-366.

Yigitcanlar, T. and O., Gudes, (2008). Web-based public participatory GIS. In *Encyclopedia of Decision Making and Decision Support Technologies*. F. Adam (Ed.). Hersey, PA: Information Science Reference, Volume II, pp. 969-976.

Yigitcanlar, T. and O., Saygin, (2008). Online urban information systems. In *Encyclopedia of Decision Making and Decision Support Technologies*. F. Adam (Ed.). Hersey, PA: Information Science Reference, Volume II, pp. 699-708.

Yigitcanlar, T., Han, H. and S. H., Lee, (2008a). Online environmental information systems. In *Encyclopedia of Decision Making and Decision Support Technologies*. F. Adam (Ed.). Hersey, PA: Information Science Reference, Volume II, pp. 691-698.

Yigitcanlar, T., Saygin O. and H., Han, (2008b). Online participatory decision support tools for knowledge-based urban

development. In *Creative Urban Regions: Harnessing Urban Technologies to Support Knowledge City Initiatives*. T. Yigitcanlar, K. Velibeyoglu and S. Baum (Eds.). Hersey, PA: Information Science Reference, pp. 186-202.

Yuksel, F., and B. Bramwell., (1999). Stakeholder Interviews and Tourism Planning at Pamukkale, Turkey. *International Journal of Tourism Management* 20(1): 351-360