Public participation in municipal transport planning processes – the case of the sustainable mobility plan of Ponta Delgada, Azores, Portugal

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ABSTRACT

Public participation in transport planning is a recent trend. There is an increasing number of cases in Europe where the public is involved in the decision-making process. In Portugal, where the use of a motor vehicle as a means of transportation still enjoys a deep approval in the society, a participatory approach is an opportunity to change perceptions towards more sustainable transport modes. In Ponta Delgada (Archipelago of the Azores), for the first time in Portugal, the relevant stakeholders were involved in the development process of a sustainable mobility plan. It proved that, on a participatory basis, sustainable transport planning provides more satisfactory and efficient solutions. This paper presents the methodology and results of a participative transport management planning model. This model can be adapted to the specific needs and problems of other small island cities.

1. Introduction

Mobility can be seen as a basic human activity, as it results from the need to reach various activities such as work, leisure, personal and household management. In the current environment of rapid global change, the role of transportation and mobility has become especially important (Banister, 2008; van Wee, 2002). Effective and reliable transport systems are crucial for the functioning of post-industrial economies, yet the current transport systems generate significant negative externalities like air pollution, noise, energy consumption, emission of greenhouse gases and the loss of open space (Kahn Ribeiro et al., 2007; Friedl and Steininger, 2002).

Ensuring progress towards a more sustainable development is a political priority in European Union (EU) and many other countries. As shown in several environmental reports, the transport sector is a significant and growing contributor to CO2 emissions accounting for 26% of the CO2 emissions in Europe. It is highly dependent on fossil fuels (98%) and is responsible for 60% of total oil consumption (Woodcock et al., 2007).

1.1. Small island territories

Research on transport, and particularly sustainable transport in small islands, is relatively scarce (Enoch and Warren, 2008; Attard, 2005; Enoch, 2003). However, the specific characteristics of small islands require a sophisticated approach to transport planning to cope with local conditions.

Small islands, in general, have similar and unique characteristics in terms of their economics, social, culture, geography, climate and environment. The most obvious limitations for small islands are their geographic parameters of smallness, remoteness and isolation, and often an outward-looking economic orientation. Small islands are, therefore, considered as closed systems (Calado et al., 2007). Small islands typically have limited natural resources, limited capacity in terms of production, high costs in accessing external goods, high costs of external transport, and general economic dependence from external supply. These factors, when coupled with rapid population changes, can impede economic development. The limited availability of natural resources such as water, soil, air, shore systems and wildlife also dictate the capacity of an island to embrace sustainable development. Their overexploitation can result in damages of the whole insular ecosystem, which can be irreversible due to the low capacity of closed ecosystems to recover. Therefore, remoteness, isolation, smallness and closed ecosystems make planning and management on small islands more challenging, in scientific and technical terms (Calado et al., 2007).

1.2. The Azores islands

The Azores archipelago is located in the North Atlantic, ca. 1430 km from Lisbon and 3900 km from the east coast of North America. The archipelago consists of nine islands of volcanic origin,
located between 37–40°N and 25–31°W (Fig. 1). Due to their geographic distribution, the islands are divided into three groups: the Western Group (Flores and Corvo), the Central Group (Pico, Faial, São Jorge, Graciosa and Terceira) and the Eastern Group (São Miguel and Santa Maria).

Due to its geographic isolation, the Azores archipelago is considered as an outermost region in Europe, together with Madeira, Canaries, Guadeloupe, Martinique, Reunion, and French Guiana. Portugal, including its autonomous regions (Azores and Madeira), had access to structural funding from the European Commission (EC) since 1986. This subsidy contributed significantly to Portuguese infrastructure, education, new technologies, and gross domestic product (GDP) growth rate (Baer and Nogueira Leite, 2003). However, rapidly growing car ownership and related problems of congestion and air-pollution have notable side-effects. Consequently, greenhouse gas emissions have multiplied over the last few years (APA, 2009).

1.3. Study drivers

To promote the reduction of negative environmental and health impacts of the Portuguese municipal transport systems, the Portuguese Environmental Agency (Agência Portuguesa do Ambiente; APA) with the Ministries of Environment, Spatial Planning and Regional Development, Construction, Transport and Internal Administration, created the Sustainable Mobility national programme. In order to develop balanced and sustainable solutions to address existing mobility issues, 15 universities and research centres participated in this initiative to develop and implement sustainable mobility plans (SMP) for 40 selected Portuguese municipalities. Ponta Delgada (S. Miguel Island, Archipelago of the Azores) was the only selected municipality that is located in the Azores and Madeira autonomous regions. This case was designated as an outstanding case study model for good practices due to the involvement of all relevant stakeholders in the SMP development process (APA, 2010).

The 40 case-studies were developed using different approaches determined by the location, dimension, urban and socio-economic framework of each city. This paper analyses only the methodological approach and results obtained from the Ponta Delgada case-study’s development. Being an island based case-study, its approach and outcomes can be considered as applicable to other cities in small islands. Furthermore, small cities on the Portuguese mainland with similar dimension and urban structure as Ponta Delgada could also benefit from this experience by applying core procedures.

The general goal of this project was to present an integrated and sustainable proposal based on stakeholder involvement to address the most relevant and complex mobility issues in a small island city. The specific objectives were to collect information for improved decision-making (1); to conduct a participatory process (2); and to develop a management tool (3).

Section 2 of this paper will review the literature on participatory planning techniques. Section 3 will set out the methods for the participatory SMP development. Section 4 will discuss the results and Section 5 will present the challenges and recommendations.

2. A review on participatory transport planning

2.1. Achieving sustainable mobility

There is growing awareness that the positive effects of mobility are offset by negative externalities such as environmental...
pollution, traffic congestion (or lack of accessibility), and high accident rates. Current trends on transport indicate that the system is moving away from sustainability, and that major changes are necessary to make the transport system more compatible with environmental sustainability (Banister et al., 2000).

There is no single universally accepted definition for sustainable transport. A technique increasingly used is to frame the concept by proposing principles and desirable attitudes of a sustainable transport system: liveable streets and neighbourhoods, environment protection, equity and social inclusion, health and safety, and support of an efficient economy (Castillo and Pitfield, 2010). Sustainable mobility is an important part of the concept of sustainable development which requires all sectors of society to stay within sustainability levels (Banister et al., 2000). According to Friedl and Steininger (2002), a sustainable transport system should be one that allows basic access needs and development of individuals, companies and societies to be met safely and in a manner consistent with human and ecosystem health. It should also promote equity within and between generations, be affordable, operate efficiently, and limit emissions, waste, and noise.

To achieve sustainable mobility actions, it is necessary to reduce travel needs, reduce trip lengths, encourage greater efficiency in the transport system and promote slow modes (Banister, 2008). Consequently, sustainable mobility would offer improvements to individual health, as well as a cleaner and healthier environment (Woodcock et al., 2007). Implementing sustainable mobility differs from the conventional transport planning approach: car use can be reduced through the promotion of walking and cycling, and the development of a new transport hierarchy. This can be achieved by slowing down urban traffic and redistributing space for public transport, by parking controls and road pricing. In the sustainable mobility approach, a street is no longer seen as a simple road for cars but also a space for people, for green modes and for public transport (Banister, 2008).

Many people are highly dependent on car travel. The car represents far more than just a means of transportation. Motives such as the sense of freedom, status and superiority seem to play a role. Therefore, policies that tend to reduce private transport need to be combined with ones that provide alternatives to car driving (Beirão and Sarsfield Cabral, 2007). Such policies might involve an improvement of the public transport service and the promotion of cycling and walking. Furthermore, it may be necessary to promote measures to reduce the attractiveness of the car. In the Azores, transport planning is generally executed through the conventional approach. However, some of the aspects of sustainable mobility approach, such as environmental concerns, are currently gaining popularity.

2.2. The public participation concept

The term integrated transport planning is often used to respond to new requirements on transport planning (Hull, 2005; Pember- ton, 2000). It aims to integrate different modes of transport, different land-uses, and to make transport policies consistent with quality objectives of the environment, health, economy and society in general. It also implies integration of all social groups and cooperation amongst all relevant institutions and policymakers (Santos et al., 2010). There is a growing support for enlarging the scope to a public discourse and empowering the stakeholders through an interactive and participatory process of transport planning.

Public participation is widely interpreted as involvement in decision-making with the purpose of influencing the choice(s) being made (O’Faircheallaigh, 2010). Nearly 40 years ago, Arnstein (1971) stated that participation was concerned with the redistribution of power, where those normally excluded from the process of decision-making had the opportunity to be involved. She also was critical that participation degenerated to an empty concept when it was dealing with uncomfortable topics. In many countries (such as the Netherlands, Germany, Denmark and Sweden), the right to public participation is incorporated into the law. Still, there are many possible interpretations of this term. A key issue, of course, is the nature of involvement.

Differences can result between modes of consultation – where local authorities receive suggestion and criticism, but can simply reject the ones they think are inappropriate or irrelevant – and participation where there is a certain degree of redistribution of power. Real participation implies at least full partnership, or potentially, full control by the participants involved. According to Bickerstaff et al. (2002), effective participation can be achieved by six guiding principles: being inclusive, open, interactive, continuous, begin early in the process, and with effective feedback of participants. Over the years, there has been a shift from very limited levels of participation to broader levels. Higher levels of participation, which can be designated as two-way dialogues, have several benefits over one-way processes. Local communities can provide valuable information for the authorities, thus leading to a wider range of possible solutions (Renn, 2006). Further, an active involvement of the relevant stakeholders can help avoid future conflicts as it creates a sense of ownership (Gil et al., 2011). In decision-making processes, where people have the possibility to participate actively, they feel more committed and responsible for the consequences of the process, thereby guaranteeing a better implementation. Furthermore, public participation strengthens the democratic fabric of a society and can act as a vehicle for individual and community empowerment (Reed, 2008; O’Faircheallaigh, 2010).

All these principles for public participation can be applied to stakeholder participation. This article focuses on stakeholder participation rather than public participation, and defines stakeholders as those who are affected or can affect a decision. This definition includes individuals, groups or organizations which are, in one way or another, interested, involved or affected (positively or negatively) by a particular project or action (Freeman, 1984).

2.3. Stakeholder involvement and sustainable transportation planning process

Transport policy has become a multi-agent, multi-sector and multi-modal process which must balance and engage with a wide-range of interests, issues and policy areas (Booth and Richardson, 2001). It is facing difficult challenges (such as environmental pollution or social cohesion) but is also creating new opportunities for public involvement. Initiatives such as Local Agenda 21 encouraged a greater use of partnerships between governmental agencies and the public. As a result, there has been a movement towards the development of more inclusive and more participatory decision-making processes (Booth and Richardson, 2001).

While it is already a common practice to involve stakeholders and the public in other policy areas, it is a recent trend in transport planning. In the EU, stakeholders and public involvement in transportation planning has been promoted largely through environmental legislation. Milestones in this process include Directive 2001/42/EC on the Strategic Environmental Assessment of Plans and Programmes, and the International Convention on Access to Environmental Information, Public Participation in Environmental Decision-making and Access to Justice – Aarhus Convention (2001). On the one hand, sustainable mobility is a controversial topic as the ideals of the European integration and EU cohesion have long demanded freer and inexpensive movement of people, goods and services (Hall, 2010). On the other hand, studies reveal that the majority of European citizens are increasingly concerned
about transport and urban issues. Issues such as sustainable development and climate change are demonstrating growing prominence (Stead, 2008) as well as support for environmentally friendly modes (Banister, 2008). There has been a remarkable shift to more integrated transport planning within the EU. Sustainability was first mentioned in connection with transport, particularly with regards to its contribution towards rapid increase in greenhouse gas emissions. Though, major criticism on the document was the failure to clearly define sustainable mobility. Ten years later, in 2002, the White Paper “European Transport Policy for 2010: Time to Decide”, was more explicit, recognizing the need to reduce traffic growth and its negative consequences, especially pollution and congestion. The White Paper states that this can only be achieved by a package of measures (Stead, 2008). Special attention was thus given to urban transport planning. In order to promote sustainable mobility, the EC strongly recommends local authorities to develop and implement Sustainable Urban Transport Plans (SUTPs) due to the fact that they ensure long-term planning for urban transport development. Furthermore, SUTP entails a system of regular reporting and monitoring, and provides a framework tool-box to facilitate the definition of measurable objectives and quality criteria. To ensure a better outcome, the EC encourages cities to engage in a constant and continuous dialogue with all relevant stakeholders, from citizens to private operators, in the development phase of the SUTP (EC, 2005). There is a growing recognition that sustainable transportation can be reached more easily by involving all relevant stakeholders.

Although progress has been made, transport planning continues to be perceived as an elitist process in many cases. According to Booth and Richardson (2001), transport planning is still characterized as democratic deficit with top-down participation strategies. Particularly, the involvement of common citizens is limited to informing and consulting local communities, rather than encouraging more active participation and partnership in the planning and decision-making process (Bickerstaff et al., 2002).

However, involving the public is a key factor in enhancing a change in the attitude and behaviour of people towards more sustainable modes of transport (Banister, 2008). Public acceptability is essential for successful implementation of radical change, and must therefore involve community and stakeholder commitment in the process of discussion, decision-making and implementation. In order to create public acceptability of sustainable mobility, it is necessary to explain the need for change in behaviour and convince the citizens of the importance of their contribution (Banister, 2008).

Some examples of public involvement in transport management include: in Switzerland, where consultation managers were employed to work on an effective forum for participation; in Germany, where transport strategy round tables were held; in France, where public consultation on regional transport plans were initiated; and in the UK, where public acceptability for congestion charging in London was achieved through extensive consultation of all involved parties (Hall, 2010; Bickerstaff et al., 2002; Banister, 2008).

Europeans, especially southern Europeans, rely heavily on private automobiles to satisfy their mobility needs as public transportation is often inadequate, especially since investments in modern rapid mass transportation has been insufficient for many years (Beirão and Sarsfield Cabral, 2007; EEA, 2009). In Europe, there are 460 cars per 1000 inhabitants (in 2002), with an average...
annual growth rate of 2.3% over the period of 1995–2002. The total stock of cars in absolute terms increased from 175.6 million cars in the year 1995 to more than 210 million cars in 2002, comprising an average annual increase of 2.7% (total population in Europe was 456.5 million in 2002) (Emberger et al., 2008). This scenario indicates that additional efforts on sustainable mobility have to be made.

3. Proposal for a participatory sustainable mobility plan (SMP)

3.1. The case study area

In Portugal, the involvement of the public in transportation management is a very recent development. There is still very limited experience and literature about this topic. The case study area, Ponta Delgada city, is the capital of the Azores islands archipelago. Ponta Delgada is located in São Miguel island, the largest and most populated of the nine islands, accounting for 133,816 inhabitants according to the Statistical Yearbook of the Azores Region of 2008 (SREA, 2009). São Miguel island is divided into six municipalities: Ponta Delgada, Ribeira Grande, Lagoa, Vila Franca do Campo, Povoação and Nordeste. Ponta Delgada city is located within the municipality of Ponta Delgada, the most populated of the Azores, hosting 28% of the Azorean population (282 inhabitants/m²).

Most of the services, businesses, and industries are concentrated in Ponta Delgada, making this city the traffic junction of São Miguel. The congestion has increased in recent years due to growing numbers of vehicles in the island. Public transportation is limited to intercity and city buses (minibuses) and represents 17% of commuting transport. Private car is the overall dominating means of transportation, representing around half of all journeys (INE, 2002). The case study intervention area includes the urban parishes Santa Clara, São José, São Sebastião and São Pedro, and considers their interactions with the suburban parishes Relva, Covoad, Arrifes, Fajã de Cima, Fajã de Baixo and São Roque (Fig. 2).

3.2. Sustainable mobility plan

The adopted strategy for the development of the SMP of Ponta Delgada was based on two fundamental principles (Fig. 3):

- Involve all the relevant public and private stakeholders that are directly or indirectly affected by urban mobility in an economic, social or cultural way.
- Implement strategies that improve accessibility through the understanding of daily mobility problems of all citizens and find more appropriate, effective and realistic solutions.

The SMP of Ponta Delgada was developed in six methodological phases (Fig. 4).

3.2.1. Phase 1 – identification and invitation of stakeholders

In phase 1, the potential stakeholders were identified and formally invited to participate in the development of the SMP. Potential stakeholders included all actors who were directly or indirectly affected by mobility in the case-study area, such as local administration bodies, regional administration bodies, private or public transportation companies, trade and industrial unions, organizations for disabled people, regional agencies for energy and environment, environmental Non-Governmental Organizations (NGO), school directors, the police, associations for rural development, citizen groups, and regional and local research centres and universities.

A group of heterogeneous and multi-domain specialized stakeholders was invited to participate in the development of the SMP (Table 1).

3.2.2. Phase 2: definition of the vision, mission and general goals of the plan

In phase 2, the 1st Stakeholder Workshop was organized. To begin, each stakeholder or representative presented themselves and
their expectations and objectives. Based on all compiled and processed data (Fig. 3), a full characterization of the mobility issues in the study area was provided by the technical staff. In small working-groups (4–6 persons), randomly formed, three exercises were conducted:

(a) Analysis of available information and identification of data gaps to fulfil for the SMP development process.
(b) SWOT analysis or problem-tree of mobility in the case study area.
(c) Definition of the vision, the mission and the general goals of the SMP.

The results of each working group were presented to the other participants, who discussed and approved them.

(a) It was pointed out that fundamental data was missing. Therefore the technical staff was asked to collect data concerning the number of vehicles and passers-by entering and exiting the city daily at rush hours (Table 2). Vehicles and pedestrians were counted between 7.30 and 10.30 A.M. (peak period) at 13 strategic locations, covering all city entrances/exits, indicating more cars (15,002) than passers-by (2,471), proving that motorized vehicles are by far the most used way to enter and exit the city centre.

Additionally, a public survey of passers-by, car-drivers and public transport users concerning the mobility issues in Ponta Delgada was carried out. In the public survey (Table 3), 262 pedestrians, car-drivers and minibus users were randomly selected and interviewed in the streets of Ponta Delgada. As the interviews were carried out in the street, 38% of the respondents were pedestrians, 36% minibus users and 26% car users. The majority of the respondents (43%) commuted by car to the city with low occupancy, with 34% of them commuting alone and 26% commuting with one passenger (two occupants). The reasons indicated for car usage were mostly

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Table 1
List of stakeholders involved in the development of the sustainable mobility plan of Ponta Delgada.

<table>
<thead>
<tr>
<th>Public institutions</th>
<th>Private and non-governmental organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ponta Delgada City Council</td>
<td>Energy and Environment Azores Regional Agency</td>
</tr>
<tr>
<td>Ponta Delgada Council – Urban and Suburban Parishes Boards</td>
<td>Trade and Industrial Union of Ponta Delgada</td>
</tr>
<tr>
<td>Portuguese Agency for Environment</td>
<td>Environmental NGO “Amigos dos Açores”</td>
</tr>
<tr>
<td>Regional Secretary of Environment</td>
<td>Private Transportation Companies</td>
</tr>
<tr>
<td>Regional Secretary of Public Construction and Transportation</td>
<td>Portuguese Association for Disabled People</td>
</tr>
<tr>
<td>Regional Secretary of Economy and Tourism</td>
<td>National Police</td>
</tr>
<tr>
<td>Ponta Delgada City Primary and Secondary School Boards</td>
<td>Ponta Delgada Council – Urban and Suburban Parishes Boards</td>
</tr>
<tr>
<td>University of the Azores – Land-use Planning Research Centre</td>
<td>Regional Secretary of Environment</td>
</tr>
<tr>
<td>Technical University of Lisbon – Transport Planning Research Centre</td>
<td>National Police</td>
</tr>
<tr>
<td>University of Porto – Urban Planning Research Centre</td>
<td>Ponta Delgada City Council</td>
</tr>
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</table>

Fig. 4. SMP development phases involving all relevant stakeholders.
handicap in order to perform all the required changes. The medieval architecture of a large part of the city centre constitutes a huge amount of sidewalks and access ramps for disabled people. The medieval streets demonstrate a lack of urban planning and effective management as either narrow (29%) or totally inadequate (20%). These figures demonstrate a lack of rigourous planning of the three existing mini-bus services, which have low frequency, punctuality (29%) and limited extent of the service lines (42%). These figures indicate a lack of rigourous planning of the three existing mini-bus circuits and a deficient fleet management in order to ensure that the service's sustainable growth. The people who commute by public transport stated that they had no alternative (35%) and that the public transportation service's sustainable growth. The people who commute by public transport stated that they used public transportation due to the price (33%). However, the public interurban bus service stated that they had no alternative (35%) and that the public transportation connections are more frequent and reliable. Interestingly, 22% of the interviewees would change their mode of transportation from car to public transport if the frequency of public transport was higher (33%) and punctuality was guaranteed (29%). The major reasons for unsatisfactory minibus service in Ponta Delgada were low frequency (52%) and limited extent of the service lines (42%). These figures indicate a lack of rigourous planning of the three existing mini-bus circuits and a deficient fleet management in order to ensure the service's sustainable growth. The people who commute by public transport stated that they had no alternative (35%) and that they used public transportation due to the price (33%). However, the public interurban bus service does not cater for the needs of 37% of the respondents and is considered an unsatisfactory service (53%). The quality was evaluated as insufficient by 53% of the users. Almost the same percentage (40%) stated the opposite which indicates that further investigation might be necessary to analyse this topic. It was also agreed that shortage of parking spaces which are free of charge was a problem. According to 59% of the respondents the parking spaces do not correspond to the need. This fact highlights the important effort of the City Council in restricting the access to the city centre using a personal vehicle, by reducing drastically the availability of free parking spaces. Although people seem to rely heavily on the private car, most of the interviewees are in favour of more restricted car circulation in the city centre (81%) and more spaces for pedestrians (73%). The evaluation of the conditions for disabled people was considered as very bad by the majority (58%) or insufficient (29%). The sidewalks were similarly classified as either narrow (29%) or totally inadequate (20%). These figures demonstrate a lack of urban planning and effective management of sidewalks and access ramps for disabled people. The medieval architecture of a large part of the city centre constitutes a huge handicap in order to perform all the required changes.

(b) In the second exercise, the stakeholders performed a SWOT analysis on the mobility issues in the Ponta Delgada city (Table 4). It showed similar results as the survey. The "mentality" of Ponta Delgada's citizens was classified as a weak point regarding minibus use. The stakeholders pointed out the limited number of parking spaces and on the other side the quickness and comfort of private car. Regarding walking habits, the lack of practice was seen as a weakness, as well as the narrow sidewalks. The resistance to alternative transport modes like walking was considered a threat. On the other hand, the weather conditions, the small distances and the scenery were seen as strengths in favour for walking.

(c) In the third exercise the participants discussed and approved the following statements:
- Vision for the SMP: "Solutions for a sustainable, efficient, integrated and diversified mobility, adapted to all citizens".
- Mission of the SMP: "Promote an environmentally sustainable mobility in Ponta Delgada in order to provide a better quality of life for all citizens".
- General goals for the SMP:
  1. Promote the efficiency of private motorized transportation in Ponta Delgada.
  2. Promote the utilization of public transportation in Ponta Delgada.
  3. Promote soft modes of mobility in Ponta Delgada (walking and cycling).
  4. Integrate Ponta Delgada SMP's activities into land-use plans and Local Agenda 21.
  5. Promote mobility conditions that guarantee equal rights of all citizens in Ponta Delgada.

3.2.3. Phase 3: development of the SMP Logframe draft

In this phase, the first draft of the Logical Framework (Logframe) of the SMP was designed by the technical staff. This involved meetings with groups of stakeholders (related to public and private transportation; urban planning and rural development; environment and quality of life). The Logframe draft included proposals for the specific goals and the respective activities, the progress indicators, means of verification, important assumptions and the responsible institution for the implementation of each activity (Table 5). Phase 3 lasted 3 months as it was dependent on additional information gathered with the help of the stakeholders.

3.2.4. Phase 4: discussion, approval and ratification of the SMP Logframe (2nd Stakeholder Workshop)

Two months after the 1st Workshop, the 2nd Stakeholder Workshop was held to discuss, validate and approve the "proposal for the implementation of the Sustainable Mobility Plan" (Logframe). The
participants worked in small working groups on the documents (from phase 3) previously provided (2 weeks before).

The participants at this workshop were decision-makers or representatives. They had the legal mandate to sign and approve the plan. To guarantee an effective and successful development of the SMP, it is recommended to conduct this workshop with representatives who possess decision-making powers.

Table 5 shows an excerpt of the SMP Logframe, including the vision, the mission, the general goals and one example of a specific objective with its respective activities.

### 3.2.5. Phase 5: communication and promotion of the plan

The design of the SMP should be user-friendly and easy to interpret for any user and interested reader. A sufficiently large number of copies need to be printed and handed to all stakeholders, libraries, educational institutions near the area of intervention, and the press.

To officially enforce the plan, the city council of Ponta Delgada organized a small public ceremony, followed by a press conference, where the stakeholders were present. After this ceremony, the plan was published online.

### 3.2.6. Phase 6: supervision and monitoring of the plan

For the supervision and monitoring of the plan, an annual report will be elaborated with a scheduled and detailed description of concluded and ongoing activities. During the annual SMP stakeholder meeting, the stakeholders discuss achievements, problems and challenges of the ongoing implementation and approve the report including all comments, observations and amendments. The final document will then be sent to the stakeholders and will be
important and strategic activities were already carried out: inte-
to finance the implementation of the plan. Some of the most
specific) of the SMP. Therefore, one of the most significant suc-

ties in order to achieve the 

Proceed with the utmost transparency and rigour while sharing
management plans are mandatory in order to fully and truly ad-
sustainable in the long run than current centralized approaches.
Consensual management planning permits a combination of dif-
ment with local-level, diversified, flexible and long-term transport
planning practices. A more decentralised approach may be more
sustainable than current centralized approaches. Consensual man-
ger this to proceed with the utmost transparency and rigour while sharing

municipal mobility system requires the involvement of multiple
and heterogeneous public and private stakeholders. This tremen-
dous challenge demands the highest levels of strategy, planning
and activity programming. Therefore, active and participatory
management plans are mandatory in order to fully and truly ad-
dress the mobility issues. These issues call for mobility managers
who have the authority to make political, administrative and finan-
cial decisions. In order to foster public awareness and support for
the SMP, the public must be kept informed throughout the process
involvement of all relevant stakeholders in the intervention area,
problems of the particular area of intervention. Further steps in
the future could include involving, apart from the relevant stake-
holders, the general public in the process of sustainable transport
management planning is adaptable to the specific needs and
problems of the particular area of intervention. Further steps in
the future could include involving, apart from the relevant stake-
holders, the general public in the process of sustainable transport

made available online to the public. The plan shall be revised and
updated whenever it is necessary and never unjustifiably, too soon
or repeatedly, to avoid a loss of its credibility.

For the development of the SMP of Ponta Delgada, 5 of the
methodological phases described were applied. Phase 6 (supervi-

ing and monitoring of the plan) was not applied due to the recent
final approval of the plan.

4. Discussion

Fifteen stakeholders (public, private, scientific and non-govern-
mental institutions at national, regional and local levels) partici-
pated in the Ponta Delgada City SMP development. Most of them
took the full or partial responsibility to carry out some of the 34
operational tasks (Logframe activities) that were defined as priori-
ties in order to achieve the vision, mission and goals (general and
specific) of the SMP. Therefore, one of the most significant suc-
cesses of the SMP development was getting the public stakeholders
to finance the implementation of the plan. Some of the most
important and strategic activities were already carried out: inte-

Table 4
Results of SWOT analysis on mobility problems in Ponta Delgada.

<table>
<thead>
<tr>
<th>SWOT analysis of minibus in Ponta Delgada</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of minibus</td>
<td></td>
<td>Mentality of citizens</td>
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<tr>
<td>Connectivity between mini buses and</td>
<td></td>
<td>Limited information</td>
</tr>
<tr>
<td>other modes</td>
<td></td>
<td>Uncovered zones (minibus)</td>
</tr>
<tr>
<td>Prices</td>
<td></td>
<td>Traffic jam at rush hours</td>
</tr>
<tr>
<td>Good quality of the fleet</td>
<td></td>
<td>Circular, one-way circulation</td>
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<tr>
<td>Opportunities</td>
<td></td>
<td>Threats</td>
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<tr>
<td>Reorganization of public transport</td>
<td></td>
<td>Increasing fuel prices</td>
</tr>
<tr>
<td>Restrictions for cars in the centre</td>
<td></td>
<td>High investment costs</td>
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<td>Renewable energies</td>
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<tr>
<th>SWOT analysis of private transport in Ponta Delgada</th>
<th>Strengths</th>
<th>Weaknesses</th>
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</thead>
<tbody>
<tr>
<td>Freedom</td>
<td></td>
<td>Limited parking space</td>
</tr>
<tr>
<td>Independence</td>
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<td>Road state</td>
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<tr>
<td>Quickness</td>
<td></td>
<td>Narrows roads</td>
</tr>
<tr>
<td>Comfort</td>
<td></td>
<td>Excluded groups</td>
</tr>
<tr>
<td>Easy purchase</td>
<td></td>
<td>Increased pollution</td>
</tr>
<tr>
<td>Opportunities</td>
<td></td>
<td>Traﬃc jam</td>
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<tr>
<td>Renewable energies</td>
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<tr>
<td>Car-sharing</td>
<td></td>
<td>High investment costs</td>
</tr>
<tr>
<td>Carpooling</td>
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<td>Increasing taxes Restrictions for cars in the centre</td>
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<table>
<thead>
<tr>
<th>SWOT analysis of walking in Ponta Delgada</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather conditions</td>
<td></td>
<td>Lack of practice</td>
</tr>
<tr>
<td>Small distances</td>
<td></td>
<td>Narrow sidewalks</td>
</tr>
<tr>
<td>Street lights</td>
<td></td>
<td>Parking on sidewalks</td>
</tr>
<tr>
<td>Scenery</td>
<td></td>
<td>Occupation of open spaces for parking No sidewalks in some streets</td>
</tr>
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<td>Opportunities</td>
<td></td>
<td>Threats</td>
</tr>
<tr>
<td>New infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic advantage for shops and restaurants</td>
<td></td>
<td>Resistance against alternative modes</td>
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</tbody>
</table>

Calado et al. (2008).

5. Conclusions

Standard land planning instruments have failed to adequately
promote a sustainable mobility at local level in Portugal, and espe-
cially in the islands’ cities. The achievement of a more sustainable
municipal mobility system requires the involvement of multiple
and heterogeneous public and private stakeholders. This tremen-
dous challenge demands the highest levels of strategy, planning
and activity programming. Therefore, active and participatory
management plans are mandatory in order to fully and truly ad-
dress the mobility issues. These issues call for mobility managers
to proceed with the utmost transparency and rigour while sharing
the responsibility of management, and to search for the optimal
utilization of human, technical, technological and financial re-
sources of each of the stakeholders.
The participation and co-responsibility of all stakeholders form
the cornerstone of an effective and successful SMP development
and implementation. The stakeholders involved in the SMP should
be from various domains and functions. To ensure the lowest cost
and highest success in implementing the SMP, stakeholders should
incorporate actions that they have committed to as part of their
regular annual agenda. Due to the highly political nature of the
process, stakeholders should always be represented by participants
who have the authority to make political, administrative and finan-
cial decisions. In order to foster public awareness and support for
the SMP, the public must be kept informed throughout the process
by disseminating all published documents and developed public
Table 5
Logframe of the SMP Ponta Delgada. Source: Calado et al. (2008).

<table>
<thead>
<tr>
<th>Designation</th>
<th>Indicators</th>
<th>Evaluation methods</th>
<th>Important conditions</th>
<th>Responsable institution</th>
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</thead>
<tbody>
<tr>
<td>Vision</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mission</td>
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<tr>
<td>General goal 1</td>
<td>Solutions for a sustainable, efficient, integrated and diversified mobility, adapted to all citizens</td>
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<td>Municipality of Ponta Delgada</td>
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<td>General goal 2</td>
<td>Promote an environmentally sustainable mobility in Ponta Delgada in order to provide a better quality of life for all citizens</td>
<td></td>
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<td>General goal 3</td>
<td>Reduce the use of private car in Ponta Delgada</td>
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<td>Municipality of Ponta Delgada</td>
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<td>General goal 4</td>
<td>Promotion of public transport in Ponta Delgada</td>
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<td>General goal 5</td>
<td>Promotion of soft modes of transport in Ponta Delgada</td>
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<tr>
<td>Specific goal 3.1</td>
<td>Requalification and valorisation of sidewalks in Ponta Delgada</td>
<td></td>
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</tr>
<tr>
<td>Example: specific goal 3.2</td>
<td>Implementation of pedestrian corridors and bicycle lanes in Ponta Delgada</td>
<td></td>
<td></td>
<td>Municipality of Ponta Delgada</td>
</tr>
<tr>
<td>Activity 3.2.1</td>
<td>Identification of potential streets to create pedestrian corridors and bicycle lanes throughout the city of Ponta Delgada. Implementation of limited car circulation without causing prejudice for residents and businesses</td>
<td>– No. of selected streets</td>
<td>Study of technical feasibility</td>
<td>– Political will</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Extension of selected streets</td>
<td></td>
<td>Municipality of Ponta Delgada</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Localization of identified streets</td>
<td>Municipal GIS</td>
<td>– Support from population</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Connectivity</td>
<td></td>
<td>– Technical feasibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Existence of study of technical feasibility</td>
<td>– Available funding</td>
<td></td>
</tr>
<tr>
<td>Activity 3.2.2</td>
<td>Development of plan for pedestrian corridors and bicycle lanes in Ponta Delgada based on studies of Activity 3.2.1</td>
<td>Plan for pedestrian corridors and bicycle lanes in Ponta Delgada</td>
<td>– Plan for pedestrian corridors and bicycle lanes in Ponta Delgada</td>
<td>– Political will</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Annual report of activities of municipality of Ponta Delgada</td>
<td>– Website of municipality of Ponta Delgada</td>
<td>Municipality of Ponta Delgada</td>
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<tr>
<td></td>
<td></td>
<td>– Press/media</td>
<td>– Political will</td>
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<td>– Support from population</td>
<td>– Technical feasibility</td>
<td></td>
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<td></td>
<td>– Available funding</td>
<td>– Available funding</td>
<td></td>
</tr>
<tr>
<td>Activity 3.2.3</td>
<td>Implementation of the plan of corridors for pedestrians and bicycle lanes in Ponta Delgada based on studies of Activity 3.2.1</td>
<td>– Number of streets and connectivity</td>
<td>– Annual report of activities of municipality of Ponta Delgada</td>
<td>– Support from population</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Extension of selected streets and connectivity</td>
<td>– Website of municipality of Ponta Delgada</td>
<td>– Political will</td>
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<td>– Press/media</td>
<td>– Technical feasibility</td>
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<td></td>
<td></td>
<td></td>
<td>– Available funding</td>
<td>– Available funding</td>
</tr>
<tr>
<td>Activity 3.2.4</td>
<td>Development of an awareness campaign together with the media and with secondary schools in Ponta Delgada to promote the utilization of the pedestrian corridors and bicycle lanes</td>
<td>– Number of users of pedestrian corridors and bicycle lanes</td>
<td>– Report of users counting</td>
<td>– Political will</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>– Annual report of activities of municipality of Ponta Delgada</td>
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<td>– Press/media</td>
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</tbody>
</table>
participation tools and materials. It is important to note that the SMP coordinator and his staff should always bear in mind that without the full support and involvement of stakeholders, any attempt to propose, create and implement a SMP will be a wasted effort.

Acknowledgements

The authors would like to thank the Portuguese Environmental Agency, the City Council of Ponta Delgada and the stakeholders involved in the SMP of Ponta Delgada.

References


