CONFLICTS IN THE PLANNING PROCESSES OF LOCALLY UNWANTED LAND USES (LULUs): CASE STUDIES IN İZMİR

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ABSTRACT

CONFLICTS IN THE PLANNING PROCESSES OF LOCALLY UNWANTED LAND USES (LULUs): CASE STUDIES IN İZMİR

Land use planning is both a technical and a political process in which many different groups with multiple interests are affected by planning decisions. While every land use planning decision has a potential of creating conflicts, Locally Unwanted Land Uses (LULUs) are the most conflict facing subjects in urban land use planning because of their negative externalities such as health effects, economic costs and harms to environment. This thesis aims to find out the reasons of and solutions for the conflicts in the planning processes of LULUs. The thesis focuses on conflicts about three LULU types including solid waste facilities, fisheries and quarries in İzmir, Turkey. Qualitative research design is used with techniques including document analyses, media search and in-depth interviews. In the case studies, the conflicts are analyzed with a proposed analysis method including issues for understanding and resolving conflicts. These issues are used to discuss characteristics and reasons of conflicts and existing and proposed conflict resolution methods. It is found that the reasons of conflicts are not only the negative effects of LULUs such as odor, pollution and noise but also procedural deficiencies such as lack of knowledge and lack of trust. The findings in case studies supported the theoretical works concerning limitations for the success of participatory processes seeking for consensus. Conflict resolution attempts including symbolic benefits rather than considering exact interests of local people should be rethought.

Key Words: Locally Unwanted Land Uses (LULUs), Land Use Planning, Planning Process, Conflict Resolution, Solid Waste Facilities, Fisheries, Quarries, İzmir

ÖZET

YERELDE İSTENMEYEN ARAZİ KULLANIMLARINI (LULU) PLANLAMA SÜREÇLERİNDEKİ ÇATIŞMALAR: İZMİR ALAN ÇALIŞMALARI

Arazi kullanım planlaması çeşitli çıkarlara sahip bir çok farklı grubun planlama kararlarından etkilendiği hem teknik hem politik bir süreçtir. Her arazi kullanım planlama kararı çatışma yaratma potensiyeline sahipken Yerelde İstenmeyen Arazi Kullanımları (LULU) sağlığa etkileri, ekonomik maliyetleri ve çevreye zararları gibi olumsuz etkileri nedeniyle kentsel arazi kullanım planlamasında çatışmayla en çok yüzleşen konulardır. Bu tez yerelde istenmeyen arazi kullanımlarının planlama süreçlerindeki çatışmaların nedenlerini ve çözümlerini bulmayı amaçlamaktadır. Bu tez Türkiye İzmir'deki katı atık tesisleri, balık çiftlikleri ve taş ocaklarını içeren 3 LULU türü hakkındaki çatışmalara yoğunlaşmaktadır. Belge analizi, medya araştırması ve derinlemesine mülakat tekniklerini içeren niteliksel araştırma tasarımı kullanılmıştır. Alan çalışmalarında çatışmaları anlama ve çözme konularını içeren öneri analiz yöntemi ile çatışmalar analiz edilmiştir. Bu konular çatışmaların özelliklerini ve sebeplerini ve mevcut ve öneri çatışma çözümü yöntemlerini tartışmak için kullanılmıştır. Çatışma sebeplerinin yalnızca LULU'ların koku, kirlilik ve gürültü gibi olumsuz etkileri değil aynı zamanda bilgi eksikliği ve güven eksikliği gibi sürece yönelik eksiklikler olduğu bulunmuştur. Alan çalışmalarının bulguları uzlaşma arayan katılımcı süreçlerin başarısının kısıtlayıcıları hakkındaki kuramsal çalışmaları desteklemektedir. Yerel halkın gerçek çıkarlarını dikkate almak yerine sembolik çıkarları içeren çatışma çözümü teşebbüsleri yeniden düşünülmelidir.

Anahtar Kelimeler: Yerelde İstenmeyen Arazi Kullanımları, Arazi Kullanım Planlaması, Planlama Süreci, Çatışma Çözümü, Katı Atık Tesisleri, Balık Çiftlikleri, Taş Ocakları, İzmir

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INTRODUCTION

1.1. Aim

This thesis mainly concerns with the conflicts in the site selection processes of locally unwanted land uses (LULUs). LULUs refer to the land uses which may be wanted regionally but opposed by local people with various reasons. Reasons include both negative externalities of these land uses and procedural factors such as distrust, misinformation, economic and political reasons. These reasons cause conflicts between decision makers and local people.

The research studies decision making processes of LULUs and land use conflicts with an aim of finding out the reasons of these conflicts and possible solutions to resolve or minimize them. With this aim, the research conducts a case study on three LULU types in İzmir: solid waste facilities, fisheries and quarries. The case study aims to demonstrate the site selection processes of the three LULUs and the conflicts lived throughout their processes.

1.2. Problem Definition

Land use planning is a both technical and political process in which many different interest groups are affected by planning decisions (Kaiser et al., 1995; Chabot and Duhaime, 1998). It is defined as a rational decision making process concerned with the future use of the land determined technically by professionals including planners who are hired and supervised by the State. It fulfils two basic social functions: an economic function which aims at rationalizing land use, based on market rationality, and a political function of legitimization of the State (Chabot and Duhaime, 1998).

The purpose of land use planning is described as ensuring wide variety of interests are taken into account in planning process while deciding the future land use pattern of an area (Kaiser et al., 1995; Jones et al., 2005). The interest groups include elected and appointed officials from different levels and departments of government,

developers and landowners from private sector, local residents and other members of the public that are affected by planning decisions, representatives of other special interests such as neighborhood preservation and environmental conservation (Kaiser et al., 1995; Jones et al., 2005) and land planners (Kaiser et al., 1995). Land use planners are both players and managers of the game. They have to develop some special capabilities – vision, comprehensiveness, technical competence, fairness, consensus-building and innovativeness – to play this game. They prepare plans which are the records of a series of agreements among players about ways to deal with their objectives, serving as a community dispute resolution mechanism (Kaiser et al., 1995).

Land use planning, as a process affecting various interests groups with multiple interests, faces with conflicts (Jones et al., 2005; Peltonen & Sairinen, 2010). Conflicts between decision makers and opponents may be about various reasons ranging from personal gains to environmental balance. There are several strategies to solve land use conflicts. The need for alternative planning processes with more public participation rather than planner-centered planning is underlined by various studies (such as Forester, 1987; Magigi, 2010).

The concept of "conflict" has an increasing importance in the area of planning. Planning theory and related theoretical approaches focus on developing methods and techniques for resolving these conflicts. Besides, legislation in many countries started to adopt approaches about finding solutions to conflicts. Therefore, it is crucial to work on conflicts in land use planning and conduct case studies contributing to both theories and practice. There are many researches in the world focusing on these subjects; however, studies integrating practice with theory are few in Turkey.

Conflicts emerge in land use planning especially while dealing with LULUs. As LULUs cause externalities such as odor, noise, dust and pollution, the groups which are affected by siting decisions show their negative responses against LULUs (Popper, 1985; Ishizaka & Tanaka, 2003; Rogge et al., 2011). They use various ways of protesting site selection decisions such as public mobilizations, lawsuits and signature campaigns, meetings, petitions and press releases.

Previous studies showed that the problems in site selection processes of LULUs are usual in many countries such as USA, Korea, Canada, Belgium, Japan, Spain, Greece, China, UK and Portugal as well as Turkey. The problems require the researchers in these countries to study processes and the responsible institutions or authorities to focus on reasons of the conflicts (Chung et al. 2008; Kaliampakos et al.,

2011), factors affecting acceptance of land uses (Sellers, 1993; Liu, 1997; Steelman and Carmin, 1998; Göncüoğlu Eser & Luloff, 2003) and ways to solve conflicts (Ishizaka and Tanaka, 2003; Kikuchi and Gerardo, 2009, Kaliampakos et al., 2011; Chiou et al., 2011). These studies successfully exemplified the theoretical debates in their case areas; however, only a few studies made a comparison of various LULU types. Besides, only a few discussed the relationship between planning process and conflicts with examples. This thesis tries to fill this gap by finding out the procedural reasons of conflicts and proposing issues to be considered in planning processes for preventing or resolving these conflicts. Also, the thesis discusses these procedural issues with examples of three different LULU types with three different site selection processes.

Only one article is found in Turkish literature making a literature review on NIMBY (Not In My BackYard) syndrome related with LULUs; that is the work of Palabıyık and others (2010). Previous case studies from Turkey reviewed in this thesis do not focus on conflicts about LULUs; they only examine some land uses which are considered unwanted such as solid waste landfills (Banar et al., 2006; Ersoy and Bulut, 2009; Ekmekcioglu et al., 2010; Sener et al., 2010 & 2011). These studies propose site selection methods for one type of LULUs rather than analyzing their conflicts. Unlike these studies, this thesis tries to understand and discuss common underlying factors in the conflicts of various types of LULUs.

This research examines the LULU conflicts in a city from Turkey by using similar qualitative research methods and techniques with the previous case studies on LULU conflicts. It differs from them in terms of trying a method for analyzing LULU conflicts. In addition, it searches the case based, actor based, process based and LULU type based factors influencing the conflicts.

Such a study searching the reasons of LULU conflicts and their possible solutions contributes to both planning theory and planning practice in terms of issues about participation, negotiation and consensus building in site selection processes and factors behind oppositions to LULUs. The thesis guides decision makers or planners facing LULU conflicts in practice in managing conflicts and designing smoother processes.

Main arguments considered in this thesis are as follows:

- The site selection of LULUs is not only a technical process, but it is a more complex problem having relations with underlying social factors and political forces.

- The conflicts about LULUs are not only caused by negative effects such as odor and noise but also caused by procedural issues such as deficiencies in sharing information and lack of participation.
- The solutions to LULU conflicts become difficult when there are complex diverse issues, huge amounts of interested people and imbalance between their political and economic powers.

1.3. Method

The research question of this thesis is: "What are the reasons and solutions of conflicts in the site selection processes of LULUs in İzmir?" This question is answered with the help of following sub-questions:

- Why conflicts are emerged in the site selection processes of LULUs in İzmir? (What are the reasons depended on LULU types, actors, planning procedures or site selection processes, locations, etc.?)
- How can these conflicts be resolved or minimized? (What kinds of solutions are experienced in İzmir and which conflict resolution proposals in theory would be suitable for these cases?)

As the research questions ask "why" and "how", the research is designed to be qualitative. The question inquires subjective data such as opinions, emotions and perceptions of people interested with site selection of LULUs and asks for understanding both reasons and underlying factors of LULU conflicts. The scale of the questions focusing on local characteristics and the causal relations (Sayer, 1992; Gatrell et al., 2005) are other reasons of selecting qualitative research design.

To answer the research question the research is formulated in the following steps:

1st step – preliminary data collection: Databases, previous thesis, journals, books, and web based sources are searched to find the general concepts about the thesis subject. The findings in this review guided the outline of the thesis proposal.

- The **databases** accessed from library of İzmir Institute of Technology are searched with keywords such as "locally unwanted land uses", "planning process limitations" and "planning process conflicts". The databases include journals, e-books, book chapters, dissertations and reports.

- **Previous theses** from Turkey are searched from the archive of National Thesis Center of Council of Higher Education. However, no thesis studying LULU concept is found. There are theses about only specific types of LULUs from various disciplines such as environmental engineering, marine sciences and technology, landscape architecture, mine engineering and sociology. The theses using keywords "solid waste disposal area", "fisheries" "quarries" and "NIMBY" are also collected.
- **Journals** such as Journal of Environmental Policy & Planning, Journal of the American Planning Association, Journal of Planning Literature and Journal of Environmental Management are searched with similar keywords.
- The **web-based sources** are also skimmed.

2nd step - review of the literature to understand concepts and draw a theoretical frame: A study on LULUs may be based on several theories. For example, if the researcher studies the best location for LULUs or the appropriate urban form which minimizes the externalities of LULUs, then he/she may use urban form theories or location theories. Studies focusing on the effects of land use changes on conflicts between social classes or transformation of social systems through conflicts may use social conflict theories. Studies aiming to find the community based factors in success of stopping LULUs may utilize collective behavior theory or social movement theory. If the research focuses on LULU siting impacts on property values, the researcher may review theories such as hedonic price theory. On the other hand, if the researcher tries to find out which planning process causes less conflict of LULUs or what is the effect of participatory or communicative approaches in decision making processes of LULUs to possible conflicts, then he/she may make use of planning theories. As this research aims to understand, analyze and resolve the conflicts in planning processes of LULUs, it focuses mainly on planning process theories rather than substantive theories. These discourses are revisited in this thesis in the scope of LULUs. The debates about planning process and the emphasis on collaborative and communicative approaches in planning literature trigger the research process.

While a significant part of the theoretical chapter includes planning process theories, some other theoretical works considering related issues such as conflict types, interest groups and conflict management strategies are also utilized. The theoretical frame is drawn with two interrelated aims: to understand and analyze conflicts

(including characteristics and reasons of conflicts) and to minimize and resolve conflicts.

3rd step - examining previous case studies: Besides theories, similar studies focusing on previous practices are reviewed. Two groups of 32 case studies are examined due to their contents:

- case studies on site selection methods of LULUs
- case studies on conflicts in site selection processes of LULUs

The first group of studies includes seventeen studies focusing on one type of LULU such as solid waste disposal areas or hazardous waste facilities. They proposed LULU site selection methods such as multi-criteria analysis methods, combination of the multi-criteria analysis and geographic information systems (GIS), simple screening models and combination of stakeholder analysis and spatial multi-criteria evaluation. Besides these quantitative methods, community based approach and communicative approach were also proposed. The site selection methods proposed in the first group of previous case studies are utilized in the evaluation and recommendation part of the thesis.

The second group of studies includes fifteen studies focusing on various LULUs such as prisons, renewable energy facilities, radioactive waste facilities, mines and greenhouse clusters. Most of these studies analyzed more than one case. They used various research methods to analyze the processes including aspects such as interest groups, conflicts and their resolution techniques. Qualitative research design is the most used methodology in previous case studies in this group. The techniques used in qualitative analyses were interviews with interest groups, coding the answers to the questions in interviews, regulatory documentation of newspapers, categorizing comments on public hearings, and content analysis. The amount of studies using quantitative analyses with techniques such as questionnaires, telephone surveys and statistical models are less. The review of the second group of previous case studies guided the thesis in terms of case methodology. Similar to most of them, this thesis has a qualitative research design.

The studies using interviews in this second group are examined in detail. The examination included the types of interviews and interviewees, number of interviews and cases of the eight studies. They are utilized in determining these details in the thesis. The acceptable types and amounts of interviews, interviewees and case studies in previous researches with similar subjects are found with the help of this review.

4th step – case study: The conflicts in site selection processes of LULUs in İzmir are selected as case studies. The LULUs are selected because they are the most conflict facing land uses in land use planning processes. İzmir is selected because of two reasons. The first reason is that İzmir is the third biggest city in Turkey in terms of population and has ongoing site selection conflicts about various land uses. The bigger the population of the city is the more problems occur about planning. The second reason of İzmir choice is the ease of access to information and data.

The conflicts in site selection processes of solid waste facilities, fisheries and quarries are studied to understand the reasons of conflicts and to discuss possible solutions to minimize these conflicts. Before selecting these three LULU types, LULUs in İzmir are listed with the guidance of the table including LULU examples found in the literature. LULUs in the table are used as keywords in newspaper search to find whether there have been any conflicts about these land uses in İzmir. The list including LULU examples in İzmir is enriched by the Environment Report of İzmir Bar Association (İBA, 2012) and the interview with the head of İzmir Branch of the Chamber of City Planners. 35 conflict facing LULUs are found. They are ranked due to the intensity of the conflicts. Among those, nine LULUs which were protested by local people with meetings and took place in media more than others are selected. These are

- mines including quarries and gold mines,
- electricity generating stations especially thermal plants and their ash landfills,
- waste related land uses especially solid waste disposal sites,
- communication towers,
- watching stations,
- entertainment facilities with loud music,
- dams,
- shopping malls
- fisheries.

The research is designed to be qualitative; therefore, a small amount of case studies are decided to be examined in detail. Three (solid waste facilities, fisheries and quarries) are chosen and others are subtracted because of several reasons. The case of dam in İzmir, Yortanlı Barajı located in Allianoi, was wanted by local people because of the need of water for their agricultural activities, but it was not wanted by other people who wanted to protect the ancient values. As well as the dam example, shopping

malls are also usually wanted by local people but not wanted by other people in İzmir due to various reasons such as replacing public spaces including stadium, park and university area. Reasons for subtracting other four LULUs include availability of the data, research safety and accessibility of parties.

The research is designed including research techniques and sources of data and information for the case (Table 1).

Table 1. Research design for case study

Frame of the Research	Research Techniques	Data & Information Sources
confirming LULUs in İzmir	document analysis and media search	action reports of Metropolitan Municipality and public institutions, reports of chambers, newspapers, press releases
clarifying characteristics and statistics of LULUs in İzmir	document analysis	TurkStat, web-pages of public institutions
learning planning decisions	document analysis	plans
finding locations of existing and proposed LULUs	document analysis	GoogleEarth, 3D City Map of İzmir Metropolitan Municipality
learning the planning process of LULUs in İzmir	document analysis and interviews	plans, planners, other professionals in decision making institutions, regulations and laws
understanding conflicts, reasons, interest groups, types of responses	media search and interviews	newspapers, press releases, photos, videos, reports against LULUs, blogs of opponent groups, all interviewees
learning solutions proposed by responsible institution	media search and interviews	newspapers, planners, other professionals in decision making institutions

Document analysis, media search and in-depth interview techniques are used in data collection like most of the previous researches. The use of the combination of these techniques provides the data triangulation and increases the validity of the data.

- **Document analysis:** Data from the archives of local institutions and NGOs are collected. Plans from İzmir Metropolitan Municipality, press releases and court decisions from chambers, photos from local people, inventories and other documents from local institutions are obtained.
- **Media search:** The web-based archives of two national (Milliyet and Hürriyet) and a local newspaper (Yeni Asır) including LULU news are searched. The news since 2004 in Milliyet and Yeni Asır and since 1998 in Hürriyet are accessible in online archives. The first search is for determining LULUs in İzmir. All LULU types are used as keywords in news search. In the second search after selecting 3 types, news related

with solid waste facilities, fisheries and quarries in İzmir are collected and read in detail. The keyword search finds 1134 news from three newspapers and 259 of them are related with the case studies (Table 2).

Table 2. Newspaper search

		Solid Waste Facilities		Fisheries		Quarries		Total	
Newspaper Types	Newspaper Names	# of News Searched	# of Related News Found	# of News Searched	# of Related News Found	# of News Searched	# of Related News Found	# of News Searched	# of Related News Found
National	Milliyet	201	31	76	27	65	19	342	77
	Hürriyet	59	3	113	39	171	16	343	58
Local	Yeni Asır	157	59	126	47	166	18	449	124
Total		417	93	315	113	402	53	1134	259

The findings of media search not only contributed to the analysis of conflicts and evaluation of processes but also guided the following steps of data collection. With the guidance of these findings, case locations hosting a conflict are listed and related actors to be interviewed are determined. Seven conflict cases about solid waste facilities (Harmandalı, Menemen, Taşkesik, Gökdere-Kaynaklar, Menderes, Yamanlar and Ödemiş), six cases about fisheries (Demircili, Sığacık, Saip-Ambarseki, Küçükbahçe, Ildırı-Gerence and Mordoğan) and fourteen cases about quarries (Germiyan, Yağcılar, Nohutalan, Özbek, Karaburun, Kösedere, Pınarbaşı, Belkahve, Gökdere-Kaynaklar, Çakmaklı, Yenmiş-Akalan-Ansızca, Çambel, Karakuyu-Yeniköy-Çileme and Ahmetbeyli) are found (Figure 1). The case study considered only conflict facing LULUs, not all solid waste facilities, fisheries or quarries in the city.

- **In-depth structured interviews:** The main rules and important points of interview technique stated in literature on methodology helped this research in terms of decision of the interview type, determination of the interview questions, selection of the people to be interviewed and interpretation of the findings. The previous studies using this method are reviewed to understand their methods in a research subject similar to the thesis.

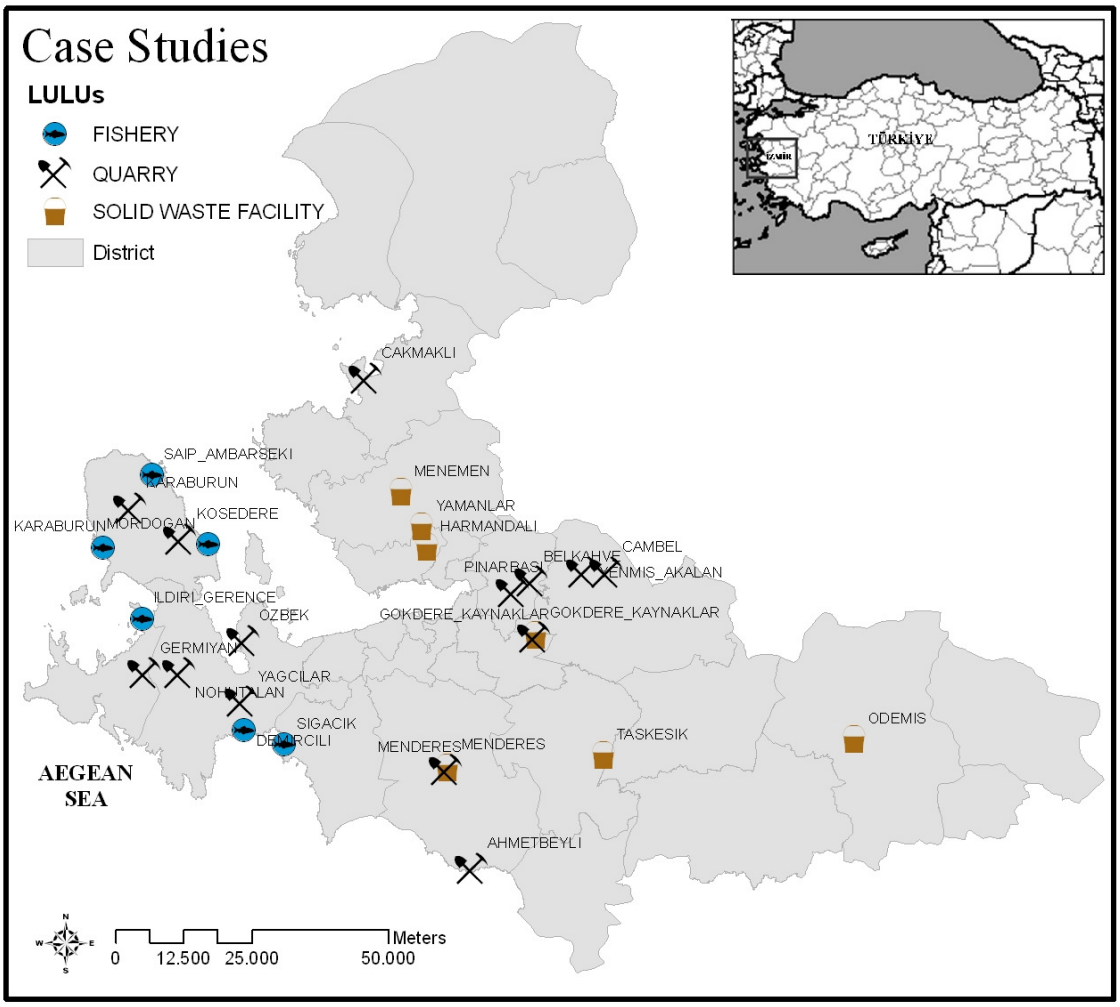

Figure 1. Case studies

The type of interviews selected in this research is “structured interview” which is preferred when there are a large number of interviewees (Wellington and Szczerbinski, 2007). This type is also selected in order to facilitate the comparison of various cases by using a set list of questions. The same questions are asked to all interviewed people for all cases of three LULUs. In other words, the questions are designed to fit all cases and to be clear for various education levels. Interview questions are prepared to be clearly understood by both experts and local people. To manage this, the questions are controlled by three people other than the researcher before the interviews. A list of 19 questions in 5 groups including (1) site selection process, (2) conflict process, (3) solution process, (4) whole process and (5) other LULUs is prepared (Interview Questions in Appendix A). The questions in the former three groups are analyzed in detail. The question about the whole process asked about

additional comments and the answers are related with former questions; therefore they are analyzed within former questions. The last question is asked to find similar perceptions about other LULUs but the answers did not include expected results. Other questions are mostly open-ended and asking for reasons. They are prepared with the guidance of the issues to understand, analyze and resolve the planning process conflicts about LULUs with the help of literature review.

The people to be interviewed with their names, institutions, locations, related LULU, phone numbers, addresses, ways to access them and appointment details are listed. They are selected from the parties involved in the process. At least one representative of each party related with processes of decision making, conflict or resolution are included. The list included 72 people from public institutions, local people, non-governmental organizations, private companies and interviewees from universities (Table 3). As one of the key actor groups is local people, most of the interviews are done with headmen (Muhtar). On the other hand, university is not directly included in the site selection, conflict or resolution processes so the amount of their interviews is the least. As some interviewees preferred to be interviewed together, 60 interviews are conducted totally (List of interviews in Appendix B). The amount of interviews is more than the majority of the similar previous case studies, because they examined one type of LULU while this thesis studied three types of LULUs.

The amounts of interviewees are 30 in solid waste facility cases, 32 in fishery cases and 38 in quarry cases. Their total exceeds 72, because there are people interviewed about all 3 cases. As some interviewees are related with all three cases, they answered the questions for all. An example for these is the public institution giving Environmental Impact Assessment (EIA) Report. On the other hand, some of them are interviewed about only one case. For example, the headmen spoke about only their villages or quarters. Interviewees at odds with other interviewees may not wish their views to be recorded on tape (Wellington and Szczerbinski, 2007). This research also includes interviewees with opposing views; therefore, tape recorder is not used not to disturb the comfort of the speakers. All speech is written while interviewing unless the people said “out of record”. After the interview, the speeches are typed. Also, other collected materials, maps and photos are recorded.

Table 3. Amount of interviewees due to cases and groups

LULUs	Interviewed Groups / Case	Metropolitan Municipality	Public Institution	Municipality	Headmen (Muhtar)	Private sector	NGOs	University	Total
Solid Waste Facilities	Harmandalı	4	4	1	1	-	3	1	14
	Menemen	3	4	1	0	-	2	0	10
	Torbalı-Taşkesik	3	4	1	1	-	3	0	12
	Bornova-Gökdere&Buca-Kaynaklar	2	4	3	1	-	2	0	12
	Menderes	2	5	1	1	-	2	0	11
	Yamanlar	4	4	2	1	-	2	0	13
	Ödemiş	-	5	0	0	-	2	0	7
	Sub-total (without duplications*)	6	6	8	5	-	4	1	30
Fisheries	Urla-Demircili	-	5	4	1	1	2	2	15
	Seferihisar-Sığacık	-	5	5	3	1	4	3	21
	Karaburun-Saip&Ambarseki	-	5	1	2	0	3	2	13
	Karaburun-Küçükbahçe	-	5	1	3	0	3	2	14
	Çeşme-Ildırı	-	5	-	1	1	2	2	11
	Mordoğan	-	5	1	0	0	2	2	10
	Sub-total (without duplications*)	-	5	7	9	2	6	3	32
Quarries	Çeşme-Germiyan	-	5	-	1	1	2	1	10
	Urla-Yağcılar	-	5	4	1	1	2	1	14
	Urla-Nohutalan	-	5	4	1	2	2	1	15
	Urla-Özbek	-	5	4	1	1	3	1	15
	Karaburun	-	5	1	0	1	3	1	11
	Mordoğan-Kösedere	-	5	1	1	1	2	1	11
	Bornova-Pınarbaşı	-	5	2	2	2	2	1	14
	Bornova-Belkahve	-	5	2	0	2	2	1	12
	Bornova-Gökdere&Buca-Kaynaklar	-	5	2	2	1	2	1	13
	Aliağa-Çakmaklı	-	5	1	1	2	2	1	12
	Kemalpaşa-Akalan,Sütçüler...	-	5	1	1	1	2	1	11
	Kemalpaşa-Çambel	-	5	1	1	1	2	1	11
	Menderes-Karakuyu,Yeniköy...	-	5	1	1	1	2	1	11
	Özdere-Ahmetbeyli	-	5	1	1	1	2	1	11
	Sub-total (without duplications*)	-	5	11	14	3	4	1	38
Total (without duplications*)		6	8	17	25	5	7	4	72
*Duplications occur when an interviewee answers for more than one cases									

The answers are collected in a table to find the common points or similarities. In addition to similarities, the varieties and extreme answers are also important for such a qualitative research. The answers are interpreted under pre-defined headings in order to answer the research questions.

Besides document analysis, media search and interviews, two meetings are visited in this period. One of them was the meeting of the heads of the chambers of Turkish Union of Chambers of Architects and Engineers (TMMOB) in İzmir Provincial Coordination Committee. The meeting was for discussing the topics for press release about the proposed site for solid waste facility in Yamanlar. All heads of chambers of various professions told their reasons for opposing or supporting the decisions. The second meeting was the Board of Management of Seferihisar City Council. The participators discussed about the further actions to be done against fisheries in Sığacık.

In addition to the meetings, fisheries in Ildırı, quarries in Pınarbaşı and Belkahve, and waste disposal site in Harmandalı are visited. These visits facilitated the observation of negative conditions of these LULUs claimed in the interviews.

5th step – content analysis: Content analysis enables researchers to plan, reproduce and critically evaluate their analyses by making interpretations of texts into analytical narratives and extracting contents for finding specific contexts and meanings (Krippendorff, 2004; Zhang and Wildemuth, 2009). In this research, textual data and images collected with various techniques are analyzed to find meanings and relations by using content analysis method.

Interview researches are frequently subjected to content analysis (Krippendorff, 2004). This research also utilized the techniques of this method. To code textual material including both interview answers and data from other documents and media, tabulation technique is used. After transcribing interviews all different answers to each question are listed in a table. This provided collection of all issues under main themes. The table indicated what kinds of answers are given by whom for which case with which frequency. It facilitated inferences of similarities or differences between answers of interest groups and between answers for different cases. The table is not added to the thesis in order to prevent making reading boring with duplicated issues, overusing sheets of paper and disclosing personalities of interviewees.

6th step – evaluation: LULU conflicts in case studies are evaluated under themes of 'the analysis method of LULU conflicts' which is developed with the guidance of theoretical works and previous case studies. The evaluation used the data

collected in previous steps, the findings of interviews and media search and the inferences gained from content analysis. A considerable part of the evaluation included the comparison of the theoretical approaches with the findings of case studies. Also, the findings specific to the cases of this thesis are searched. The reasons of these specifications are discussed.

The evaluation guided the recommendations for resolution of conflicts in case studies. The theoretical works and previous case studies facilitated the formation of recommendations of this thesis.

Limitations in the interview process of this thesis are related with (i) changes in the ongoing process, (ii) accessibility of interviewees, (iii) difficulties in maintaining the privacy of interviewees and (iv) the awareness of interviewees of being observed and its effect to their answers. The first limitation is caused by the recent changes about solid waste facility decisions. Processes about Yamanlar and Menderes started after the thesis proposal; therefore, the amount of cases is increased in the middle of the research. These new decisions and conflicts caused a need for a second effort for the review of media search and an increase in the amount of interviewees. Besides, some varieties in answers of interviewees from the same case are seen because of the changes in the ongoing process. Depending on the amount of interviews and the difficulties in accessing the interviewees, there may be months between two interviews. For example, in Yamanlar case, the opponents of the solid waste facility proposal were only from municipality in April, but the local people started to protest the LULU in the following months and therefore the interviewee met in November told that the opponents include both municipality and local people.

The second limitation was the difficulty in accessing interviewees. As many interviewees were managers of various institutions or mayors of municipalities, it was difficult to get appointments for interviews. Some of them either have no time or do not take care of academic studies. When they are not accessed or appointed, an assistant or a technical person is interviewed.

The third limitation was the difficulty in protecting the privacy of the interviewees. In some cases, the interviewee and the case location could not be emphasized together not to uncover the privacy of the interviewee. For instance, stating ‘headman in X village’ uncovers the name of the interviewee; therefore it is hesitated to state the location and headmen together in interview findings.

The fourth limitation was about the awareness factor affecting the answers of the interviewees. As many other interview using researches which are vulnerable to the error of awareness of subjects of being observed or tested (Krippendorff, 2004), this research may be affected by this limitation in collecting interview data. As the research queries conflicts, the interviewees may be reluctant to express all of their real opinions about such a subject involving opposition against state or its institutions. To overcome this limitation, the interviews are conducted in a friendly environment without using tape recorders.

The phases of the research are summarized in Table 4.

Table 4. Phases of the thesis research

Phases of the Thesis Research	2010	2011		2012		2013		2014
	Dec	June	Dec	June	Dec	June	Dec	June
Selection of the field of research and topic								
Taking related courses								
Literature survey and review								
Review of previous case studies								
Identifying the methodology								
Document analysis and Media Search for Solid Waste Facilities								
Presentation of thesis proposal								
Document analysis and Media Search for Fisheries and Quarries								
Interviews								
Evaluating the results								
Preparing publications								
Writing conclusions								

CHAPTER 2

LOCALLY UNWANTED LAND USES (LULUS) AND LAND USE CONFLICTS: THEORETICAL FRAMEWORK

This chapter first introduces LULUs and then includes theoretical works on conflicts in land use planning. Land use planning is one of the components of comprehensive planning as a planning process approach; therefore, this research analyzed theories on planning process in terms of their approach to land use conflicts. Additionally, other theoretical works focusing on conflicts, land use conflicts and LULU conflicts are also utilized not to skip important insights.

LULU conflicts are not the only conflicts in land use planning; however, many land use conflicts are related with LULUs. While some theoretical works focus on LULU conflicts, some others study land use conflicts generally and give LULU examples without calling them LULU. No matter LULUs or not, planning decisions usually make changes on land uses. These changes usually have impacts on local people. In these situations conflicts occur because of these negative impacts. While some theories focus on explanation of these conflicts, some others also suggest normative aspects. As providing the solutions requires understanding the problems, this research utilized both kinds of theoretical studies in terms of two main interrelated aims: (i) understanding and analyzing conflicts and (ii) resolving and minimizing conflicts.

2.1. What are LULUs?

Locally unwanted land uses (LULUs) are land uses with a potential of facing local conflicts in their site selection processes. They are land uses or development projects which may be regionally or nationally needed or wanted but are considered objectionable by many people who live near them because of their negative externalities such as being noisy, dangerous, ugly, smelly; polluting; increasing traffic; and lowering property values (Popper, 1983 & 1985; Nordenstam, 1994; Schively, 2004; Peyton, 2007).

LULU examples include nuclear facilities, power plants, mines, factories, airports, highways, prisons, detention centers and military installations (Table 5). Although it is possible to classify LULUs in terms of their effects, levels of dispute or other various characteristics, this thesis grouped them in terms of related functions. The classification of Zeng (1995; quoted in Lai et al., 2007) is utilized and modified. Eight groups used in this thesis are energy, waste, industry, transportation, housing, health, and crime related LULUs and other non-grouped examples.

The list does not include some land use types such as open spaces, because they are regarded as 'wanted'. On the other hand, housing is usually a wanted issue, but some types such as low income housing, shelters for the homeless, housing for the mentally ill and halfway houses are found locally unwanted by some scholars. Besides, there are some land use groups which have both wanted and unwanted land uses. For example hospitals are not included in LULU examples in literature while some health related facilities including rehabilitation clinics, drug treatment centers and mental health facilities are regarded as LULUs.

LULUs are found undesirable by hosting communities because of their local effects although they may be beneficial for the whole society (Popper, 1985; Nordenstam, 1994; Peyton, 2007). Their existing and proposed locations causes negative responses because of these effects including negative environmental and health impacts (Schively, 2004), social perturbations (Nordenstam, 1994), negative externalities such as noise, danger, smell, pollution, traffic, property devaluation and unpleasantness during construction (Popper, 1985), potential threats to the environmental safety and the economic value of property to adjacent communities (Peyton, 2007). There may be real or perceived effects (Nordenstam, 1994). Environmentalists perceived them as unneeded, not belonging to the region, being in the wrong place, having poor siting or operating procedures and being harmful (Popper, 1985).

Table 5. Examples of LULUs

Groups	LULU Examples	References
Energy	nuclear power plants	Popper, 1983; Rogers, 1998; Baxter et al., 1999; Lam & Woo, 2009; Che et al., 2013
	nuclear waste dumps	Nordenstam, 1994
	nuclear waste facilities	Rogers, 1998; Chung, Kim & Rho, 2008
	nuclear stations	Mannarini et al., 2009
	nuclear reactors	Colebrook & Sicilia, 2005
	nuclear weapon sites	Greenberg et al., 2007
	new nuclear research facilities	Greenberg et al., 2007
	nuclear waste management facilities	Greenberg et al., 2007
	nuclear powered electricity generating stations	Greenberg et al., 2007
	power plants	Popper, 1985; Feitelson, 2001; Schively, 2004; Courtright et al., 2010; Schaffer Boudet & Ortolano, 2010; Che et al., 2013
	refineries	Popper, 1983
	strip mines	Popper, 1985
	limestone mine	Steelman & Carmin, 1998
	limestone quarries	Eser & Luloff, 2003
	energy boom-towns	Popper, 1985
	chemical plants	Colebrook & Sicilia, 2005; Che et al., 2013
	electricity generating stations	Greenberg et al., 2007
	renewable energy technologies	Cass & Walker, 2009
	wind farms	Cass & Walker, 2009
	wind energy projects	Rogge et al., 2011
Industry	factories	Popper, 1985; Greenberg et al., 2007
	polluting factories	Been, 1994
	polluting (noise/gas) plants	Colebrook & Sicilia, 2005
	industrial neighborhoods	Popper, 1985
	large industrial facilities like liquefied natural gas (LNG) terminals	Schaffer Boudet & Ortolano, 2010
Transportation	airports	Popper, 1983; Popper, 1985; Feitelson, 2001
	highways	Popper, 1985; Greenberg et al., 2007
	transportation facilities	Nordenstam, 1994
	transport infrastructures	Mannarini et al., 2009
	traffic arteries	Che et al., 2013
Housing	low income housing	Popper, 1985; Eser & Luloff, 2003; Schively, 2004
	affordable housing	Schively, 2007
	slums	Popper, 1985
	shelters for the homeless	Nordenstam, 1994; Schively, 2007; Courtright et al., 2010
	housing for the mentally ill	Peyton, 2007
	homes for disabled people	Eser & Luloff, 2003
	halfway houses	Sellers, 1993; Schively, 2004

(cont. on next page)

Table 5 (cont.)

Groups	LULU Examples	References
Crime	prisons	Popper, 1985; Sellers, 1993; Greenberg & Cidon, 1997; Rogers, 1998; Eser & Luloff, 2003; Steelman & Carmin, 1998; Schively, 2004; Peyton, 2007; Courtright et al., 2010
	detention centers	Schively, 2007
Waste	hazardous waste facilities	Popper, 1983; Popper, 1985; Sellers, 1993; Nordenstam, 1994; Been, 1994; Peeples, 2000; Kikuchi & Gerardo, 2009; Schaffer Boudet & Ortolano, 2010
	abandoned hazardous waste sites	Greenberg & Cidon, 1997
	hazardous waste incinerators	Rogers, 1998
	toxic waste dumps	Courtright et al., 2010
	waste disposal facilities	Baxter et al., 1999; Peyton, 2007; Peeples, 2000; Che et al., 2013
	garbage disposal sites	Popper, 1985
	garbage dump sites	Colebrook & Sicilia, 2005
	waste dumps	Been, 1994
	solid waste facilities	Nordenstam, 1994; Liu, 1997
	landfill	Been, 1994; Baxter et al., 1999; Steelman & Carmin, 1998; Feitelson, 2001; Colebrook & Sicilia, 2005; Lam & Woo, 2009; Schaffer Boudet & Ortolano, 2010
	ash landfill	Peeples, 2000
	regional incinerators	Greenberg & Cidon, 1997
	incinerators	Steelman & Carmin, 1998; Baxter et al., 1999; Mannarini et al., 2009; Peeples, 2000; Lam & Woo, 2009; Che et al., 2013
	biomedical waste incinerators	Sellers, 1993
	sewage treatment plants	Greenberg & Cidon, 1997; Feitelson, 2001; Che et al., 2013
	recycling centers	Peyton, 2007
	markets for recycled products	Greenberg & Cidon, 1997
	waste or industrial facilities	Schively, 2007
Health	rehabilitation clinics	Schively, 2004
	drug treatment centers	Eser & Luloff, 2003; Schively, 2007
	mental health facilities	Sellers, 1993; Schively, 2007
	community living facilities for AIDS patients	Sellers, 1993
	services for stigmatized groups such as HIV or mentally ill patients	Mannarini et al., 2009
Non-grouped	skid rows	Popper, 1985
	red-light districts	Popper, 1985
	some strip-development settings	Popper, 1985
	entire downtowns	Popper, 1985
	military installations	Colebrook & Sicilia, 2005
	greenhouse clusters	Rogge et al., 2011
	potentially noxious facilities	Rogers, 1998; Baxter et al., 1999; Eser & Luloff, 2003

LULUs are mostly related with NIMBY movement (Schively, 2004 and 2007; Peyton, 2007; Mannarini, 2009). People having NIMBY approach mostly know the need of the facility but do not want it near themselves in their neighborhoods, districts or villages. NIMBY refers to the widely recognized phenomenon of the public's negative response to the siting of facilities perceived as potentially harmful and noxious (Schively, 2004). These responses are mobilizations to oppose the siting of LULUs with various activities such as signing a petition, participating in a demonstration, attending a public meeting, and so on (Baxter et al., 1999; Sherman, 2003; Mannarini, 2009). When there is a NIMBY movement against LULUs, it becomes difficult to allocate these land uses. On the other hand, it has a progressive effect on decisions by addressing issues concerned by local communities. There is a change in perspectives of scholars from seeing NIMBY phenomenon as an irrational and selfish movement to assessing it as rational and politically legitimate (Lai et al., 2007).

2.2. Theoretical Studies on Understanding Land Use Conflicts

Conflicts in planning processes are approached variously within the changing historical context of planning theories. This part of the thesis introduces dominant planning theories briefly and seeks to understand conflicts from their perspective.

Planning theories before 1960s: The dominant approach in the period between 1945 and 1960 was comprehensive planning which mainly aimed to improve welfare of the society with the power of the state. Systems theory and rational comprehensive planning approaches emerged with their reason-based and planner-centric decision making proposals. Planning gained importance in this period with these approaches considering social and economic conditions of cities. They have a potential of coping with conflicts more than the previous design based approaches considering only physical and aesthetic qualities of cities (Kaya, 2002).

Systems Theory: Cities and regions are complex and dynamic systems with interconnected parts and land uses via transportation and communication in this approach (Taylor, 1998; Allmendinger, 2002; Pallagst, 2007). This approach emerged with the critique of design tradition considering only physical and aesthetic qualities and missing the complexity of social and economic conditions of cities (Taylor, 1998;

Allmendinger, 2002). Policy analysis, forecasting, and cost-benefit analysis are some methods of systems planning (Pallagst, 2007).

In systems understanding, rational utility is an aspect in which the aim is to act individually or collectively to maximize personal utility (Allmendinger, 2002). This aspect relates with one of the possible reasons of conflicts in land use decision making process. If every member of a community aims to maximize personal utility, they fail to solve the problems in allocation of LULUs. At this point, it is possible to use the suggestion of this theory to planners to find ways to manage changes in the system. Systems approach offers planning to use models to holistic understanding for change and evolution in the city rather than models based on closed systems.

Systems approach emphasizes that with enough computing power, all cities can be modeled and that planning is a planner-centric technical process depending on professional opinion (Allmendinger, 2002). This point is worth to discuss in terms of conflicts in land use decision making process. If all stakeholders or individuals in a system trust planners and their models, there would be fewer conflicts.

Comprehensive planning: Both scale and scope of planning is comprehensive in this approach. It covers the whole city with a long range plan. Besides, this approach addresses all functions of the city and considers all factors (Innes, 1996). The steps of comprehensive planning are determining goals, survey or analysis, plan preparation or decision making, implementation of the plan, and evaluation (Kaya, 2002).

Its main assumption is that there is a unitary public interest. Three main functions of comprehensive planners are to create a master plan, to evaluate proposals of specialist planners and to ensure public interest. The search for planning goals is more complicated for comprehensive planners than specialists. Comprehensive planners have to consider the whole framework in which goals of society are shaped. When there is a conflict among goals in comprehensive planning, elected officials act as arbiters of conflict (Altshuler, 1995).

Comprehensive plans involve public promises which may cause conflicts; however, planners can manage them by carefully considering the language and content of the commitments. As comprehensive plans carry the weight of laws, the conflicts arising from inconsistency of actions with plan would be decreased. When the land use expectations of different parties are not fulfilled in comprehensive plans, the disagreements are solved in courts (Beatley, 1989).

Rational Comprehensive Planning: Rational planning theory differs from comprehensive planning as it includes the method of decision theories and techniques of data collection, measurement and analysis. It relates to means and focuses on planning process rather than ends such as blue prints and master plans as comprehensive planning produces (Reade, 1985). Planning is a rational, value-neutral, objective, non-ideological, logical, scientific and valid decision making process in which planners are experts or research scientists (Reade, 1985; Allmendinger, 2002; Pallagst, 2007).

In a rational planning process, policy goals are clarified, systematic analyses are performed, alterative policies are generated and evaluated, best alternative is selected, and finally performance is monitored (Allmendinger, 2002). In all these stages feedback may return to previous one; therefore, rational planning is an ongoing and continuous process (Taylor, 1998).

The objective and scientific process proposed in this approach was the key answer to all planning decisions and to possible conflicts about land uses. If the decision makers are thought to find best solutions, the following alternative approaches would not be needed; however, the interest groups other than decision makers tend to participate in planning processes especially after 1960s. The planning decisions could not be implemented in practice as assumed in this theory.

Planning theories between 1960s-1980s: With the effect of social movements against the failure of welfare state policies and with the critique of unitary public interest, participatory and pragmatic approaches emerged after 1960s. These approaches including incremental planning, advocacy planning, equity planning and democratic planning tried to find solutions to procedural problems such as implementation deficiencies, neglected plurality of the society and lack of participation of the citizens (Kaya, 2002).

Incremental planning: In this approach, Lindblom (2003) proposed a method called Successive Limited Comparison Approach for decision making as an alternative to rational decision making model. This approach claims that capacity of human is limited and therefore it is impossible to grasp all function of the city and develop all possible policies, and their all possible outcomes. Planners should make simplification in dealing with the complex problems, and should consider the part of the city instead of considering it as a whole. Policies should be developed in short-term, and step by step. The assumption of unitary public interest is criticized. It is claimed that society comprises different social groups which have different interests which may cause

conflicts in land use decision making. Limited number of policies should be introduced to the related interest groups in order to provide an agreement by democratically discussions (Lindblom, 2003). Lindblom's "disjointed incrementalism" approached problems in small steps and argued for a more negotiative approach (Healey, 1997).

Advocacy planning: Advocacy planning is based on the critique that pluralistic nature of society is neglected in the process of traditional comprehensive planning. Pluralist arguments suggest governmental actions to depend on existing political bargaining processes rather than long-range planning. Some minority or disadvantaged groups in the society are perceived to be excluded. The objective of planning is to improve existing decentralized decision making processes. Plural plans representing all of the interests in the city are accepted by advocacy planning (Klosterman, 2003; Davidoff, 2003).

In this approach, decision making is seen as a value-laden and subjective process; therefore goals and objectives of the plan should be decided by different interest groups rather than a planning group or agency planners (Davidoff, 2003). This point is directly related to the degree of acceptance of the plan by public. The more the planning decisions are accepted, the less the planning process conflicts occur. As planning literature includes studies focusing on the inequity in the decision making process of some locally unwanted land uses, this approach seems to be a step for solutions to their arguments; however, advocacy planning does not describe how these different plans of different groups would find a common decision. This approach prepared a base for other participatory approaches such as equity planning, democratic planning, negotiative planning and collaborative planning.

Equity planning: This approach accepts planning as a political rather than a strictly scientific endeavor as rational comprehensive approach applies. Giving equal standards to previously excluded groups is the main argument (Fainstein and Fainstein, 1996). Similar to advocacy planning, equity planning deals with who gets what in the planning process. This approach differs in focusing on providing more for groups getting few. Creating opportunities for disadvantaged groups is one of the duties of planners. This approach criticized the centralized, top-down model controlled by political and civic elites who had the resources and power (Krumholz, 2003).

Equity planning is emphasized by Krumholz facing implementation difficulties in planning practice of Cleveland between 1969 and 1975 (Varady, 1994). Equity planners deal with preventing conflicts especially depending on low-income and

middle-income housing by supporting affordable housing (Varady, 1994; Calavita and Krumholz, 2003) and find tools to decrease conflicts arising from intergroup inequalities and racial or ethnic division by using equity based criteria and help to find ways for spatial control of the minority groups (Bollens, 2002; Thomas, 2008).

Planning theories after 1980s: The discourses of globalization and postmodernism in 1980s affected the emergence of new approaches in planning theory including strategic planning, negotiative planning, consensus building, communicative and collaborative planning. These approaches criticized the expert-driven decision making process of rational comprehensive planning and proposed new roles for planners such as mediating, negotiating and facilitating in planning process. The shift from absolute rationality to communicative rationality was seen as a solution to conflicts in planning process (Kaya, 2002).

Strategic planning: This approach emerged with the need of managing changes in the societies including emerging political trends, major demographic shifts, evolving urban patterns, modern technologies and contemporary economic factors. One of the changing political trends includes NIMBY movement growing in various levels against undesirable public services. Also, representation demands of various minority groups are increased (Kemp, 1992a).

Baum (2003) described strategic planning as an effort to define organizational mission, strategic goals and implementation tools by analyzing conflicting interests of stakeholders, strengths weaknesses, opportunities and threats (SWOT). It includes incorporation of private sector to nonprofit organizations (Baum, 2003). Its steps include scanning the environment, selecting key issues, setting mission statements or broad goals, undertaking external and internal analyses, developing goals, objectives and strategies with respect to each issue, developing an implementation plan to carry out strategic actions, monitoring, updating and scanning (Kaufman and Jacobs, 1987). Stakeholder intervention in the planning process is the main sign of strategic planning's approach to conflicts. Strategic planning enables public officials to achieve a public consensus on major problems (Kemp, 1992a).

Communicative planning, Collaborative planning, Negotiative planning, Consensus building: Among theories of planning, these approaches directly focus on the conflicts in planning processes and seek for conflict resolution strategies more than other theories.

These approaches are rooted from Habermasian idea of communicative action. Approaches that see planning as a communicative and collaborative process emerged with three main influences. These are the work of Habermas who questions the instrumental rationality, the work of Foucault who claims production of knowledge through language and meaning influence power relations and the work of Giddens who examines ways to interrelate through webs of social relations (Allmendinger, 2002).

Main suggestion of these approaches is to create a dialogue among interested citizens, business and public administration. Planners in this approach are negotiators that resolve conflicts by providing compromises among related groups and actors (Catanese and Synder, 1988 quoted in Kaya, 2002). Planners have a role of safeguarding the interest of less powerful groups in the society (Pallagst, 2007). According to Forester (1987), mediated negotiation strategies require planners to exercise practical judgments. Mediated negotiations succeed in finding solutions to local conflicts involving multiple interests by making good sense politically, ethically and practically.

Main aim of consensus building approach is to provide common ground for collectively searching the opportunities for mutual benefit. These approaches emphasize the participation of all stakeholders to the planning process to obtain consensus in planning decisions (Khakee, 1998). Communicative planning is "the mediation of community discourse rather than the creation of a technically rational plan" (Campbell and Fainstein, 2003).

Planning as a social process through which ways of thinking, ways of valuing and ways of acting are actively constructed by participants (Healey, 1997). It becomes a bargaining process when people do not agree on what they want but do know how to achieve alternatives (Christensen, 1985). People are more integrated in planning process than before. This participatory approach called collaborative planning is explained as a new paradigm for planning practice (Margerum, 2002).

Conflicts are not only subjects of planning, but also are considered, studied and tried to be resolved in many other conflict related disciplines such as management, politics and law. This research thus reviews conflict management literature to understand conflicts and management methods generally. To understand conflicts, there is a need to know the number of key issues in the dispute, the number of people directly involved in the conflict process and whether all affected people are represented in the conflict process (Andrew, 2001). Recognizing conflicts is needed for resolving them

(Forester, 1999). Therefore, this part of the thesis focused on characteristics and reasons of conflicts before discussing the conflict resolution approaches and strategies.

2.2.1. Characteristics of Conflicts

Theoretical studies indicate various characteristics of conflicts including levels, focuses, types of conflict, parties involved, strategies of opponents, and impacts of conflicts on community (Godschalk, 1992; Kaiser et al., 1995; Jehn and Mannix, 2001; Sherman, 2003; Jones et al., 2005; Behfar et al., 2008; Lam & Woo, 2009; Whetten & Cameron, 2011). Conflicts may have low or high levels of disagreement. They may be external or internal. They may occur between two parties or within large groups of people. These issues provide insights for understanding characteristics of land use conflicts.

Levels of conflict: Levels of conflict are based on the intensity of disagreement. These are (i) issues which are moderate disagreements about technical problems, (ii) disputes which are substantial disagreements about unresolved and politicized issues, and (iii) impasses which are stalemated disputes involving intense and overwhelming disagreements (Godschalk, 1992). Issues mostly include problems "within a work group, committee or other semi-formal body". Disputes emerge between intergovernmental organizations involving elected officials or working groups. Impasses are disagreements in administrative hearings or courts. Conflict intensity increases from issues to impasses; therefore, the formality of forums and techniques of conflict management increases from informal negotiations to arbitration (Godschalk, 1992).

Conflict levels are stated to vary from low to high (Sellers, 1993; Whetten & Cameron, 2011). Not all levels have negative impacts, but moderate levels of conflicts are beneficial for organizations (Whetten & Cameron, 2011).

Focus of conflict: Conflicts have two groups due to the substance of dispute: people focused conflicts and issue focused conflicts. When conflicts are issue focused, the disputes are depending on competing ideas, proposals, interests or resources. When conflicts are people focused, there are interpersonal emotional disputes. Issue focused conflicts are more manageable than people focused conflicts in terms of relationships (Whetten & Cameron, 2011).

Land use conflicts may be about noise pollution, recreational equipment, communication network, nature conservation bodies, land use, development projects, solid urban waste, flora and fauna, water supply management (Pavon, Ventura, Ribas, Serra, Sauri, & Breton, 2003). Some land-uses such as livestock farming, quarries, airports and waste disposal facilities generate externalities for their environment (Henderson, 2005). For example, farm externalities include odor and noise, and economic interests of farmers varying from amenity concerns of neighborhoods (Henderson, 2003).

Types of conflict: Types of conflict are classified as process conflict, task conflict and relationship conflict (Behfar et al., 2008; Jehn and Mannix, 2001). Process conflict includes disputes about the duties, responsibilities and resource delegation. Task conflict is associated with ideas and differences in opinions about the tasks. Relationship conflict involves personal issues and feelings (Jehn and Mannix, 2001).

Types of policy conflicts are internal and external conflicts. The first type includes conflict that develops between and among policy-makers themselves when they are not able to agree on how to solve a problem while the second type includes conflict between policy makers and the public (Sellers, 1993; Stiftel, 2001).

Parties involved in conflicts: Urban land use planning process faces with conflicts about various topics because urban environment itself includes various people with multiple interests. People from different neighborhoods, sectors, ethnic or racial groups, economic levels, age groups, sensitivity levels to environmental issues, political approaches and etc. have conflicting interests on cities. Parties involved in conflicts may be civil society or representatives of special interests such as environmental conservation or minority groups, government including public sector in various levels, private companies or market oriented groups focusing on their group's particular values or organizations and pressure groups that have an interest in planning issues and outcomes, professional groups, district councils, political parties, community members, local residents and other members of the public that are affected by planning decisions, and land use planners (Lam & Woo, 2009; Kaiser et al., 1995; Jones et al., 2005; Owusu et al., 2012). There is a possible result in most land use conflict situations that most stakeholders see other stakeholders as their opponents and as a result each party concentrates on maximizing single-function use (de Groot, 2006). In addition, conflict analyses in urban problem areas require analyzing the differences between group attitudes (Bauer & Wegener, 1975).

Strategies of opponents against land use decisions: Opponents use several strategies and ways to show their responses against siting decisions. These are protests/ marches /demonstrations/ mobilizations/ public meetings, petitions (Baxter et al., 1999; Sherman, 2003; Mannarini, 2009), attracting media attention, letter writing and phone calling (Baxter et al., 1999; Sherman, 2003), slowing down the process, visible anger, polite legal confrontation, political lobbying, reconsidering previously eliminated sites, participation in the process (Baxter et al., 1999), campaigns against LULUs (Rootes and Leonard, 2009; Sherman, 2003), testifying at hearings, citizen referenda, lawsuits, citizen research, boycott and civil obedience (Sherman, 2003).

Impacts of Conflicts on Communities: When there is a conflict, communities mostly affected badly. The impacts may be destruction of property, tension, fear and insecurity, beaten or physical assault people and others (Owusu et al., 2012). There are also positive effects of the conflicts on communities. When conflicts are managed productively, they are regarded as valuable (Simerly, 1998; Whetten & Cameron, 2011). Productive results can be reached when the conflicts caused the change of the unwanted situations.

Conflicts which are opposite of agreement are not always bad, but sometimes have advantages in increasing success. Moderate levels of conflicts are beneficial for organizations (Figure 2). The value of dealing with conflict is accepted in management literature (Whetten & Cameron, 2011).

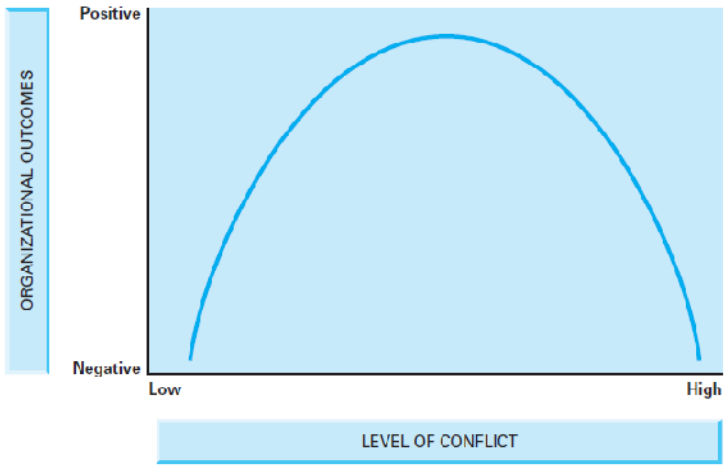

Figure 2. Relationship between level of conflict and organizational outcomes (Source: Whetten & Cameron, 2011)

2.2.2. Reasons of Conflicts

As well as characteristics of conflicts, understanding their reasons and factors affecting them is essential for conflict resolution (Popper, 1985; Bassett et al., 2002; Ishizaka & Tanaka, 2003; Lam & Woo, 2009; von der Dunk et al., 2011; Rogge et al., 2011; Whetten & Cameron, 2011). LULU conflicts can be caused by the effects of LULUs such as odor, pollution and noise. Also, they can be caused by other factors such as distrust, political reasons and lack of knowledge.

Effects of LULUs regarded as reasons of conflicts: Main reasons of LULU conflicts are negative effects or externalities of LULUs. Many scholars stated them as

- environmental pollution (Ishizaka & Tanaka, 2003; Lam & Woo, 2009; Popper, 1985; Rogge et al., 2011),
- noise pollution and odor (Ishizaka & Tanaka, 2003; Owusu et al., 2012; von der Dunk et al., 2011; Henderson, 2003; Popper, 1985; Rogge et al., 2011),
- possibility of property devaluation (Kikuchi & Gerardo, 2009; Ishizaka & Tanaka, 2003; Lam & Woo, 2009; von der Dunk et al., 2011; Henderson, 2003; Peyton, 2007; Rogge et al., 2011),
- increases of traffic (Kikuchi & Gerardo, 2009; Ishizaka & Tanaka, 2003; Popper, 1985; Rogge et al., 2011),
- impact to ecosystem (Ishizaka & Tanaka, 2003; von der Dunk et al., 2011; Schively, 2007; Rootes and Leonard, 2009),
- deterioration of the landscape (Ishizaka & Tanaka, 2003),
- hatred for waste (Ishizaka & Tanaka, 2003),
- effect to health (Lam & Woo, 2009; Ishizaka & Tanaka, 2003; von der Dunk et al., 2011; Popper, 1985; Schively, 2007; Rootes and Leonard, 2009; Llurdes et al., 2003; Kikuchi & Gerardo, 2009; Rogge et al., 2011),
- environmental safety (Lam & Woo, 2009; Peyton, 2007; Llurdes et al., 2003),
- environmental inequity/ injustice (Kikuchi & Gerardo, 2009; Rootes and Leonard, 2009; Minchart and Neeman, 2002),
- environmental related anxiety (daily stress) (Kikuchi & Gerardo, 2009),
- negative public impression of agricultural products/ economic effects of negative public image (Kikuchi & Gerardo, 2009; Rogge et al., 2011),
- possible stigmatization effects (Llurdes et al., 2003),

- effect to quality of life (Lam & Woo, 2009; Ishizaka & Tanaka, 2003; Minchart and Neeman, 2002; Kikuchi & Gerardo, 2009),
- visual pollution (von der Dunk et al., 2011; Popper, 1985; Rogge et al., 2011),
- changes to built environment (von der Dunk et al., 2011),
- changes to natural environment (von der Dunk et al., 2011),
- threat to quarter reputation (von der Dunk et al., 2011),
- reduction of agricultural production (von der Dunk et al., 2011),
- loss of agricultural land (von der Dunk et al., 2011; Rogge et al., 2011),
- loss of open space (Rogge et al., 2011),
- scarcity of land (Rogge et al., 2011),
- interruption of the market (Rogge et al., 2011),
- disestablishment of recreational area (von der Dunk et al., 2011),
- dust (von der Dunk et al., 2011),
- tremor (von der Dunk et al., 2011),
- light pollution (von der Dunk et al., 2011; Rogge et al., 2011),
- nuisance and disturbance (Lam & Woo, 2009) and
- fear for additional developments (Rogge et al., 2011)

Factors affecting the conflicts: As well as impacts there are economic, political and institutional, social and cultural, and environmental driving forces of land-use conflict (Campbell, Gichohi, Mwangi, & Chege, 2000). Factors affecting the opposition to LULU facilities are siting experience, need for the facility in the country, local need, benefits to community, risk level (Lam & Woo, 2009), procedural fairness (Lam & Woo, 2009; Nordenstam, 1994), trust in government (Lam & Woo, 2009; Baxter et al., 1999; Ishizaka & Tanaka, 2003; Elliott et al., 2003), design weaknesses, tensions between planning and development priorities, weaknesses in political or business leadership, the strength of opposition groups, discourses and counter-discourses, inter-party conflict and the politicization of development issues (Bassett et al., 2002), weaknesses in meeting deadlines, lack of balance between parties (Andrew, 2001), the role of media (Bassett et al., 2002; Rogge et al., 2011), lack of political guts, lack of vision, top-down decisions about the location, nonexistent or bad communication, inadequate information and some cases of malpractice (Rogge et al., 2011).

Personal differences, informational deficiencies, incompatible roles and environmental stress are also sources of conflict. Personal differences include values, needs, cultures and family traditions. This kind of conflicts between heterogeneous

groups is most difficult to resolve. Another source of conflicts is informational deficiencies such as misinformation and misunderstanding. Repairing these deficiencies generally resolve these conflicts. Role incompatibility is another source of conflicts stemming from the first and second sources. The environmental stress also caused conflicts because of the scarcity of resources and uncertainty (Whetten & Cameron, 2011).

2.3. Theoretical Studies on Resolving Land Use Conflicts: Conflict Resolution Methods

As politics and conflict lie at the heart of land use planning, lessons from mediated negotiation and related methods can contribute to the development of the planning processes (Jones, 2005; Peltonen & Sairinen, 2010). This part of the research includes theories suggesting solutions for conflicts in planning processes. As the proposals of planning theories and other theoretical studies are parallel to each other, they combined in this part.

Planning theories' level of concern on conflict resolution varies. Indeed, some theories did not regard conflict resolution. Therefore, this part mainly concentrates on the conflict resolution proposals of planning theories emerged after 1980s. These theories including negotiative planning, consensus building, communicative planning, collaborative planning and strategic planning are directly related with conflict resolution methods. They argue that planning is not only a technical process in which decisions are made by experts; but also a process involving various groups and interests. They seek alternative ways to decision making including attempts of negotiation, communication, consensus building, mediation, facilitation and stakeholder analysis.

Theories on resolving land use conflicts propose methods for both minimization and resolution of conflicts. Therefore, this thesis handled them in two parts. The first one is 'minimizing conflicts' which includes several strategies for preventing conflicts such as competent siting practice, considering local, environmental, social criteria and providing public participation from the beginning of the planning process. The second part includes conflict resolution methods such as mediation, negotiation and consensus building. In addition to these parts there are some strategies proposed for both minimizing and resolving conflicts such as compensation and making the best use of technology.

2.3.1. Minimizing Conflicts

Some procedural changes and improvements in decision making and planning processes may prevent some land use conflicts. There are several theoretical studies proposing strategies for conflict minimization to be used during site selection or planning processes (Nordenstam, 1994; Been, 1994; Forester, 1999; Carpenter, 1999; Elliott et al., 2002; Healey, 2003; Klosterman, 2003; Magigi, 2010).

Public participation, deliberation and learning: Forester (1999) described three ways for planners and policy analysts to foster public deliberation and learning. The first one included technical arguments brought by professional expertise. The second one required learning about value. The third one promoted learning about social identities including worries, fears, hopes, loyalties, commitment and self-images of affected citizens.

Forester (1999) explored accounts of deliberative practice from experiences in the United States, Europe and Middle East and concluded that negotiations and participatory processes may produce mutual-gain outcomes rather than zero-sum outcomes and these processes may move from "narrower notions of bargaining and exchange, to more politically and morally sophisticated, but no less practical, notions of public, democratic deliberation". In addition, participatory planning processes provide participants to learn from each other, "to develop new relationships, to enhance their attention, information and rationality and to transform their ideas in valued ways" (Forester, 1999). Recommendations for land use conflicts are to consolidate participatory planning at local level and to strengthen the relationship between the policy makers according to Magigi (2010).

Open participation is a process in which all affected people are involved in the process. It is only possible when the amount of people is manageable. Otherwise, representative participation is an alternative process in which people having same concerns are represented. In this kind of participation other people who are not representatives may attend to meetings as observers, but they do not take part in speeches (Carpenter, 1999).

The level of citizen participation shows the level of citizen power in determining the end decisions according to Arnstein (1969) who classified these levels as manipulation, therapy, informing, consultation, placation, partnership, delegated power

and citizen control. Citizen participation brings power-holders and have-nots together. Arnstein questions the legitimacy of citizen participation in which it is possible for power-holders to hire poor people to placate or utilize them or to hire their leaders to muzzle them.

The critique of Fainstein (2000) was about the possibility of NIMBYism in participatory processes in a socially homogeneous area such as in a municipality. The social diversity increased in metropolitan areas but the obstacles to participation increased too.

Stakeholder involvement is a kind of participation. Strategic planning starts with a program design phase which includes considerations of identification of stakeholders and provisions for conflict resolution (Kemp, 1992b). Stakeholder involvement and satisfaction is critical for the success of any planning project or decision making (Kemp, 1992b; Bryson, 2004). Identifying the parties that have a stake in the outcome of a dispute and ensuring that groups or interests that have a stake in the outcome are appropriately represented are first two steps to solve environmental disputes (Susskind & Weinstein, 1980).

Although the strategic decisions search ways to bring benefits to as many participants as possible, there will always be some people who will be unhappy; therefore there is a need for a fair way to deal with objections and disagreements (Healey, 2003). Healey (2003) proposed an inclusionary communicative approach to strategic argumentation to deal with them and to resolve conflicts at the start in addition to the existing forms of courts. Spatial strategy making approach helps political communities to invent their own processes by offering questions rather than procedures to follow when it involves inclusionary communication according to Healey (1997).

Strategic planning provides a way to help government and private actors to work together (Newman, 2007). Healey (2006) argued the awareness of relational complexity in urban and regional dynamics in spatial strategic planning and its governance processes. Engaging these dynamics and relational diversity, building consciousness of collective actors, enlarging synergies and reducing conflicts are accepted as needs of strategic planning. This process demands attention to collaboration, multi-vocality, participation and multi-stakeholder engagement and to consider difficulties in which dominant voices of powerful political and business elites have persuasive effect on other voices (Healey, 2006).

Stakeholder identification and analysis techniques include four main categories: "organizing participation; creating ideas for strategic interventions; building a winning coalition around proposal development, review and adoption; and implementing, monitoring and evaluating strategic interventions" (Bryson, 2004).

Competent siting practice: Many scholars argue that when siting is competent, conflicts will be minimized. The principles of competent LULU siting practice are developing trust (Lam & Woo, 2009; Baxter et al., 1999; Ishizaka & Tanaka, 2003; Elliott et al., 2003), equity (Baxter et al., 1999), public participation (Baxter et al., 1999; Magigi, 2010 Nordenstam, 1994; Margerum, 2002), and communication (Nordenstam, 1994; Magigi, 2010; Kikuchi & Gerardo, 2009; Elliott et al., 2002). Indicators to measure the success at NIMBY siting processes are time and cost, parties' evaluation of outcomes, endurance of outcome, and changes in the relationships among the parties (Stiftel, 2001).

Considering Externalities: Klosterman (2003) explained the externalities as market failures with an example of polluting plant that caused aesthetic and health problems for neighboring firms and individuals. He told that costs of dealing with these problems are not included in production costs. "Profit-maximizing firms concerned only with maximizing revenues and controlling costs are encouraged to increase output even though the associated negative external cost vastly outweigh any increases in revenue because the external, social costs are not reflected in their production costs" (Klosterman, 2003). According to Klosterman (2003), the traditional approach of planning as a comprehensive government action promoting public interest reflected the need for considering external effects.

Considering local level: Although environmental problems are acknowledged as global concerns, decision making process of LULUs mainly makes a change at local level (Peeples, 2000). Local concerns of environmental, economic, health and technical issues creating community opposition need to be considered. According to Minchart and Neeman (2002), U.S. siting procedures emphasize the global costs and benefits of a site, but disregard the local costs and benefits. The authors added 'minimizing welfare loss of the host community' in the criteria including cost minimization for the efficient siting of hazardous waste facilities (Minchart & Neeman, 2002). More consultation with affected community is one of the main methods of resolving conflicts. The need of the facility should be explained them (Lam & Woo, 2009).

Considering environmental justice: There are several studies demonstrating that LULUs are located in economically deprived or racially and ethnically minorities' neighborhoods. The lack of equity in these kinds of site selection decisions are seen as reasons of LULU conflicts. According to Rootes and Leonard (2009), the environmental justice movement developed during and since the 1980s as communities became more aware of and resistant to the siting of hazardous plants or dumps, because these facilities were often located in economically disadvantaged non-white neighborhoods, the environmental justice movement became associated with the civil rights movement in US. These movements have contributed to the raising of environmental standards, and thus to efforts to reduce the threats posed by pollution to human health as well as the natural environment (Rootes & Leonard, 2009).

On the contrary to the studies describing siting LULUs as racist and classist, Been (1994) argued that the neighborhoods surrounding LULUs may change after the LULU siting. He discussed the possibility that they may become poorer and become home to a greater percentage of people of color over the years following the sitings. The poor and racial minorities may "come to the nuisance" -to move to neighborhoods that host LULUs- because those neighborhoods offer the cheapest available housing. Been (1994) criticized previous studies because of comparing the current socioeconomic characteristics of communities that host various LULUs to those of communities that do not host such LULUs. According to him, this approach leaves open the possibility that the sites for LULUs were chosen fairly, but that subsequent events produced the current disproportion in the distribution of LULUs. Many conflicts arise from the proximity of noxious facilities to residential areas but this may be caused by encroachment of residential developments to those facilities which may be located in remote areas; therefore while studying justice issues it is obvious to recognize the changes in social and political processes which may not include malicious siting (Feitelson, 2001).

Considering social criteria: Traditional criteria used in the location of hazardous waste facilities depending on technical and economical aspects may no longer be predominant in front of social criteria such as health and environmental risks, possible stigmatization effects and territorial equity issues (Llurdes, Sauri, & Cerdan, 2003).

Multi-criteria approach: Many scholars proposed the use of multi-criteria analysis methods in decision making processes (Vasiloglou, 2004; Colebrook; 2005; Chau, 2005; Banar et al., 2006; Chang et al., 2008; Sumathi et al., 2008; Ramjeawon

and Beerachee, 2008; Ersoy and Bulut, 2009; Wang et al., 2009; Aragones-Beltran et al., 2010; Sener et al., 2010 & 2011; Ekmekcioglu et al., 2010) which are detailed in the following chapter.

Colebrook (2005) focuses on the inappropriateness of classical location criteria to the decision making of LULUs. Most of the significant literature on location analysis deals with the siting of facilities such as shopping stores, emergency services and educational centers. All of these facilities are desirable (attractive) to the nearby inhabitants which try to have them as close as possible. However, other facilities such as garbage dump sites, landfills, chemical plants, nuclear reactors, military installations and polluting (noise/gas) plants turn out to be undesirable (repulsive) for the surrounding population who avoids them and tries to stay away from them. He noted that the classical location criteria minimax (center) and minisum (median) are useless to locate this type of facility. Thus, the maximin/maxmax and the maxisum criteria arose to model, respectively, the undesirable center problem and the undesirable median problem. By placing the new facility away from existing facilities, the maximin criterion minimizes the effect on the worst impacted existing facility, whereas the maxisum criterion minimizes the collective effect (average) on the existing facilities. Likewise, some facilities might be considered semi-desirable since they provide a main service to the community but they can also cause inconveniences to the neighboring areas, for instance, an airport, a train station, or any other noisy facility. These problems can be perfectly modeled combining the minimax/minisum criteria and the maximin/maxisum criteria.

Colebrook (2005) found literature on multicriteria/multiobjective undesirable facility location on networks starts in the late 1980s scarce and he presented a multicriteria undesirable facility location model on networks with several weights on the nodes and several lengths on the edges, combining the maximin and maxisum criteria by a parameter λ. Such a model can be considered as opposite to the multicriteria network λ -cent-dian problem and hence, it can be described as the multicriteria λ -anti-cent-dian problem on networks.

Minimizing post-siting effects: Been (1994) described the post-siting effects of the LULU decision making process. The siting of a LULU can influence the characteristics of the surrounding neighborhood in two ways. First, an undesirable land use may cause those who can afford to move to become dissatisfied and leave the neighborhood. Second, by making the neighborhood less desirable, the LULU may

decrease the value of the neighborhood's property, making the housing more available to lower income households and less attractive to higher income households. The end result of both influences is likely to be that the neighborhood becomes poorer than it was before the siting of the LULU. The neighborhood also is likely to become home to more people of color. Racial discrimination in the sale and rental of housing relegates people of color (especially African-Americans) to the least desirable neighborhoods, regardless of their income level.

Effective mitigation measures and effective monitoring programs should be considered to minimize effects (Lam & Woo, 2009).

Multi-disciplinary approach: Nordenstam (1994) dealt with the need of an integrated framework guided by a multi-disciplinary approach in LULU decision making. He argued that an improved understanding of the NIMBY phenomenon would be necessarily involve the utilization of a framework integrating research findings across several disciplines because of the comprehensive nature of the siting process. In order to improve the environmental decision making process, it is important for policy makers to have an understanding of what factors influence how a community will frame the impacts resulting from a proposed facility. Nordenstam (1994) also emphasized a systems approach to community opposition, the need for procedural fairness, and the importance of citizen perceptions, communication and participation.

Private contractual arrangements: A competitive land use planning is proposed in Austrian perspective rather than governmental action in processes dealing with transaction costs (Penington, 2004). In this approach, Penington (2004) said that the land use externalities can be solved with private contractual arrangements based on estate development model.

Alternative implementation tools: Land use planning provides alternative implementation tools which facilitates minimizing conflicts. When the processes are designed flexible and open to creative solutions, the conflicts may be prevented before emerging.

Alternative zoning techniques are examples of these tools from USA. They are added to the homogenous and uniform zoning standards in order to cope with the complex and controversial character of urban issues. They are regarded as newer techniques by Levy (2000) and Roberts (1988). Their descriptions are as follows:

- Bonus or incentive zoning is the technique in which developers get increase in densities if they provide something for the community such as low income housing and some amenities for subway stations.
- Transfer of development rights (TDR) is the distribution of development rights due to the areas' characters such as ecologically or historically importance. In this technique, the property owners in the sending areas (an area where municipality wants to protect or limit the development) are permitted to sell their unused development rights to property owners in receiving areas (an area where municipality wants growth).
- Inclusionary zoning is similar to bonus or incentive zoning but differs in that it shifts some of the costs of housing low and moderate households to the developer.
- Planned unit development (PUD) gives flexibility to the property owner to design the site different from the conventional ordinance with mixed uses, different densities or dimensional changes through different sets of controls.
- Cluster zoning is a technique for providing open spaces or spaces for community purposes by clustering residential development and placing them closer.
- Performance zoning defines codes stipulating what may or may not be done in terms of the end results instead of detailed regulations on the exact form of the development.
- Development agreements specify the requirements by using contracts between the developer and the municipality.
- Exactions are usually used for rezoning or zoning variance. They are to pay the presumed costs of the development.
- Cumulative or pyramid zoning is the practice of having the permitted uses or densities automatically accumulate from one district to each successive one within one-major use categories.
- Conditional zoning is the process in which off-site public capital improvements such as schools, sewers and fire stations are added to the on-site design restrictions and requirements as a condition of getting rezoning.
- Impact fees consist of a regulatory fee imposed by the local governments on units of growth to pay for both onsite costs and area-wide costs.

An important contribution of these alternative techniques is to respond the critique that conventional zoning is so rigid that the decision making process face with conflicts. For example, when the property owner thinks that the value of the land would be lower after zoning decisions than the value he/she desired, he/she may try to change the zoning. There are both formal ways such as going to court and a petition for objection and informal ways such as preparing a proposal of the project with attractive drawings and a model with fiscal impact analysis to force the municipality to change the zoning (Levy, 2000).

As land use decisions are usually in relation with property rights, property owners tend to oppose the idea that their limits are decided by other people such as planners. The alternative techniques of land use control enable these land owners to modify the zoning decisions and enjoy the idea that they take more advantage on their properties. On the decision makers' side, making the land use planning process flexible would be better in terms of minimizing possible further plan revisions or alterations based on the objections. The municipality would provide a process in which both interests of the institution and interests of the property owners are somewhat satisfied.

2.3.2. Conflict Resolution

Processes lacking conflict minimization strategies usually face conflicts. Also, land use planning processes may remain facing conflicts despite using these strategies. In such cases, conflict resolution methods are needed. The conventional way of conflict resolution includes the legal attempts to solve conflicts by going to court. There are also alternative conflict resolution methods. Many theoretical studies proposed alternative strategies for conflict resolution including following issues (Forester, 1999; Innes & Booher, 1999a&1999b; Straus, 1999; Andrew, 2001; Margerum, 2002; Goldstein & Butler, 2010; Cullen et al., 2010).

Recognizing conflicts: Forester (1999) stated that "Before problems are solved, they must be constructed. Before we can consider options and choices, we must have a decent sense of what is at stake, of who and what is involved, to whom and to what we need to pay attention". He emphasized the need for understanding conflict reasons depending on differences of experiences, class, gender or race.

Conflict management approaches of parties: There are five kinds of approaches to conflict management: forcing, accommodating, avoiding, compromising and collaborating. The party choosing forcing response tries to satisfy own needs and ignore the needs of other parties. On the contrary, the party with accommodating approach neglects own needs and satisfy the needs of other parties. The compromising approach is between these two approaches with an attempt to share the gain fifty-fifty and to be fair to both parties. The most uncooperative and unassertive approach is avoiding response which neglects the interests of both parties and postpone the solution. The most cooperative and assertive approach on the other hand is the collaborating approach which concerns interests of both parties and proposes win-win solutions to conflicts (Whetten & Cameron, 2011).

Collaboration: There are several advantages of collaborative planning according to Cullen et al. (2010). It is more likely to resolve conflict than more traditional expert-driven processes because it provides a forum to allow stakeholders to negotiate agreements that meet the interests of all parties, thereby avoiding win-loss outcomes. In addition, the likelihood of successful implementation increases and agreements reached through collaborative planning may be of higher quality as a result of increased dialogue and the broad array of experience and knowledge multiple stakeholders bring to the table. Also, it can generate social capital through improved stakeholder relations, new communication skills, and better information (Cullen et al., 2010). Social capital is an early outcome of successful consensus building and enabler of mid and long term outcomes of shared information, reduced conflict and new collaborative efforts (Mandarano, 2009). The collaborative planning process helps participants to develop new shared meanings, purposes, and innovative approaches (Innes & Booher, 1999b). They are not only about producing agreements and plans but also about experimentation, learning, change, and building shared meaning (Innes & Booher, 1999a).

There are challenges and limitations of collaborative planning too. Often, more powerful stakeholders may be reluctant to participate because they can achieve their objectives more effectively through other avenues. In negotiating terms, the best alternative to a negotiated agreement (BATNA) for these more powerful stakeholders is more attractive than a negotiated agreement. Even if all stakeholders are motivated to participate, some stakeholders may be more powerful and may be able to achieve their objectives without considering the interests of less powerful stakeholders. Finally,

managing a collaborative planning process involving many diverse interest groups is challenging (Cullen et al., 2010).

There are several recommendations for collaborative planning. It should include the full range of stakeholders, public participation and involvement; support and facilitate the process; establish a common problem definition or shared task; organize the process in terms of ground rules, agendas, etc.; engage participants, jointly search information, and invent new options; and reach agreement through consensus (Margerum, 2002). Also, learning to become good listeners and visualizers of social concerns to contribute to conflict resolution and mediation more consciously is important in this process (Carton & Thissen, 2009). Successful mutual collaboration by all stakeholders requires a set of stakeholders capable of useful participation on an equal basis and full information on the resource, needs, institutional framework, and improved technology (Nawaz & Sattar, 2008). With full attention to these suggestions, collaborative planning is considered as a possible solution to conflicts.

Healey (1997) argued a democratic pluralistic mode of governance realized with the help of collaborative style of planning. She described the governance as a process through which collective affairs of a community are managed. Governance promotes the partnership of public and private sectors. She proposed a form of governance which enables discussion among stakeholders will facilitate collaboration, mutual learning and consensus building. Collaborative governance would provide a better way of producing social capital in urban regions than technocratic representative governance according to Healey (1997).

The characteristics of the collaborative process are being beneficial, durable, knowledgeable, interactional, efficacious, responsive and efficient (Elliott et al., 2003). Criteria for evaluating collaboration process are:

- Include the full range of stakeholders
- Include public participation and involvement
- Support and facilitate the process
- Establish a common problem definition or shared task
- Organize the process in terms of ground rules, agendas, etc.
- Engage participants, jointly search information, and invent new options
- Reach agreement through consensus (Margerum, 2002).

Consensus building: Collaborative planning seeks to bring together major stakeholders to build consensus rather than use majority rule, and also generates

commitment to commonly accepted objectives and fosters commitment to implementation (Margerum, 2002). Representatives in collaborative planning meet face to face and engage in respectful and open dialogue. Solutions and shared visions should be adopted by consensus and codified in binding agreements and plans (Goldstein & Butler, 2010). Collaborative planning engages stakeholders in interest-based negotiation to reach consensus agreement on plans (Cullen, McGee, Gunton, & Day, 2010) and finds multiple benefit solutions; for example in a locally opposed land use, it tries to simultaneously benefit society and the ecosystem (Golet, Anderson, Luster, & Werner, 2009). Consensus building requires informal, face-to-face interaction among stakeholders, an effort to seek all-gain solutions rather than win-lose solutions, and an assistance of a neutral facilitator or mediator (Susskind & Cruikshank, 1987).

Under the heading of 'reality and fantasy in planning' Baum (2003) argued that consensus decision making is appropriate when there are small differences, mild or infrequent conflicts in "small, relatively homogeneous face-to-face communities"; however, when differences are greater and conflicts are frequent in "communities with considerable diversity", majority rule may be better. He told that there is a possibility in consensus decision making that minorities may be pressed to some certain views and encouraged to acquiesce without a real agreement.

Susskind, McKearnan and Thomas-Larmer (1999) argued that people agreed on the decision which they have a hand in shaping; therefore the decisions would be implementable if consensus building is selected as a problem solving approach. This approach builds upon solutions that all stakeholders "can live with" after efforts for meeting the interests of all. There are five steps in the consensus building process: convening, clarifying responsibilities, deliberating, deciding and implementing agreement (Susskind, McKearnan and Thomas-Larmer, 1999); however, there is no single strategy suitable for all cases (Carpenter, 1999).

The consensus building processes are useful for decisions related with both a handful of people and several hundreds of people according to Carpenter (1999). On the other hand, Beierle and Cayford (2001) found a result that the amount of participants affected the success of dispute resolution processes in their study evaluating more than 100 attributes of 239 published case studies of public involvement in environmental decision making. They found that the processes achieved goals only if there was a small group of participants and did worse when wider public participated.

Consensus building is not appropriate in some situations according to Carpenter (1999). When the stakeholders do not want to participate in the negotiations because of the high possibility of gaining more from other ways or because of the distrust to other parties, the process will fail because of lack of full participation. Additional contextual issues affecting the success of consensus building processes are cultural and social factors, legal framework, political dynamics, economic factors and historic factors (Carpenter, 1999).

To determine whether there is a chance of succeeding in consensus building process, Susskind and Thomas-Larmer (1999) proposed conflict assessment. The conditions in which efforts are not likely to succeed are several. First condition is that there are few areas of potential agreement among stakeholders. Second is the unrealistic deadline for building consensus. Third condition is the unwillingness of one or more stakeholders. Fourth is a better option available for some stakeholders. Fifth condition includes incapability of granting facilitator. Sixth includes huge power imbalances among stakeholders. Seventh is the condition with funding problems. The final one is the condition in which there is no pressure to form a consensus building process.

Barriers to consensus building are institutions, deadlock of inflexible disputants and lack of trust, escalation and positional bargaining, lack of communication, complexity and ambiguity according to Elliott (1999). Hostility, bias, threats, accusations, unreal expectations and huge amounts of parties and issues made consensus difficult.

Joint-fact finding: A way of supporting conflict resolution would be joint fact finding in which conflicting stakeholders work together to collect data, analyze them and develop opinions to direct the possible decisions (Ehrmann and Stinson, 1999). This way of information gathering is said to be better than traditional attempts in which all parties hire technical experts separately. The advantages of joint fact finding are providing information for stakeholders with less knowledge, reaching better agreements and improving relationships. This method is suitable to situations in which either there is a disagreement about information or there are low levels of trust among participants (Ehrmann and Stinson, 1999).

Ehrmann and Stinson (1999) also described the situations not suitable to use joint-fact finding as power imbalances among parties and lack of belief to a fair fact-finding process. They added that the parties having extreme differences in technical background would be an obstacle to effective joint fact-finding.

Alternative dispute resolution (ADR): There are two kinds of conflict resolution processes: conventional process and ADR (Andrew, 2001). Dispute resolution techniques should introduce to the local government process according to Dorius (1993), because they have advantages of being less costly, less contentious, and more creative. In another study promoting the value of socio-political and place-based approach to understand land-use conflict, expert-led decision making processes full of quantitative, technical and objective perspectives would unable to reduce and solve conflicts if they do not take account of richness of local community perspectives (Nash, Lewis, & Griffin, 2010). These approaches underline the need of alternative decision making processes with more public participation than planner centered planning.

Types of ADR are mediation, negotiation and facilitation. Criteria to measure the success of ADR are settlement achievement, efficiency, participant satisfaction and duration (Andrew, 2001). Besides these criteria, there are several issues affecting the success of ADR processes. First one is the amount of parties and people involved in the ADR process (Andrew, 2001) and their full participation on an equal basis (Andrew, 2001 and Nawaz & Sattar, 2008 and Margerum, 2002). The process should be jointly designed by all of the parties including government and neutral mediators and facilitators within good relationships in effective deadlines. Also, the success of ADR process is affected by issues whether there is an available participant funding, a balance of power between the parties, whether the process is confidential and efficient in terms of costs and time, and whether all participants are represented and satisfied (Andrew, 2001). Other issues are social acceptance of the results (Holzinger, 2001 and Kikuchi & Gerardo, 2009), maximization of joint gains, compatibility of the (ADR) procedure with democratic principles and consistency of the result with the existing law (Holzinger, 2001).

Mediation and Facilitation: Mediation is a tool suggested for resolving controversies (Stiftel and Sipe, 1992). Inclusion of a mediator from a third party without a stake in the outcome is a way to help parties making decisions together to solve their complicated problems (Forester, 1999; Susskind, McKearnan and Thomas-Larmer, 1999; Elliott, 1999; Straus, 1999). The mediator in this process does not make or impose decisions but helps the parties to reach agreements. This approach is useful "when (1) parties are not able to meet face-to-face without assistance; (2) several diverse interests should be represented at the table; (3) participants lack the skills or

knowledge necessary for communication, brain-storming, or joint-problem-solving" (Forester, 1999).

Mediators, facilitators and other practitioners promote dialogue under conditions of conflict when there are problems of communication and trust (Elliott, 1999). Facilitators had positive impacts on conflicting groups and helped them to maintain confidence that the process could end in mutually agreeable solutions (Straus, 1999). There are professional and technical services firms and nonprofit organizations supporting dispute resolution processes by helping public agencies with expert assistance and facilitating processes in which mutually satisfactory solutions are found (Forester, 1999). Mediation and facilitation may also be solution to persuade stakeholders or parties who refuse to participate in the negotiations (Carpenter, 1999) or who are not motivated to settle (Stiftel and Sipe, 1992).

Successful mediation procedures need to assure the criteria regarding social effects such as fairness and transparency of the procedure and representation of all affected, efficiency criteria such as costs and duration of the procedure, environmental impact of the result and consistency of the procedure with democratic principles or existing law (Holzinger, 2001). The procedural criteria of mediation are:

- All the relevant actors participated fully in the procedure.
- A consensus on the mediator was reached.
- Individual participants or groups did not abandon the procedure prior to its conclusion.
- The procedural rules were adhered to or changed by consensus.
- Those participating in the mediation procedure approve of the way in which it was conducted.
- Participants in the procedure approve of the mediator.
- Debate was conducted openly and even-handedly.
- Those participating in the procedure retained credibility with their respective organizations and constituencies
- Consensus was reached on ending the procedure (Holzinger, 2001).

Results-related criteria of mediation are:

- Participants in the mediation procedure were able to extend their knowledge of the issue.
- The participants' increased awareness of the issues has meant a change in their perspectives on the problem.

- Social relations between the participants have improved as a result of the procedure.
- A decision was reached with which most or all of the participants could agree.
- The agreement dealt with most or all of the relevant aspects of the problem.
- The results of the mediation were endorsed by the organizations represented in the procedure.
- The procedure shortened the time required to resolve the problem compared with conventional procedures, including litigation.
- The monetary costs of planning were lower as a result of the mediation compared with conventional procedures, including litigation.
- The participants in the mediation would, under similar circumstances, attend a similar procedure in the future (Holzinger, 2001).

There are three approaches to mediation of a third party in dispute resolution strategies focusing on power, rights and interests. The first approach focuses on power. The third party in this approach is somebody bigger, stronger or richer than other side and attempts to response as forcing. The other side with less power accommodates in these situations. The second approach focuses on rights. The conflicts in courts are solved with this approach to balance the power of parties. The third part is the judge in this approach and the response in compromising. The third approach focuses on interests. In this approach, the mediation aims gain for both parties as in the collaborative approach (McCorkle & Reese, 2005).

Negotiation: The regulatory negotiation process ensures a negotiated rule agreed by all parties. It is not an alternative to authoritative decision making but it complements. It does not promise the best decisions, but it seeks for outcomes that everyone can live with (Forester, 1999).

When there are conflicting interests of citizens, mediated negotiation is proposed to manage this plurality. Forester (1987) proposes six mediated negotiation strategies which require not only substantive but also emotional and communicative skills for planners. Planner has varying roles such as mediator, resource, regulator, negotiator and process manager in these strategies. The first strategy is to make professional judgments and recommend regulations rather than act as a fact finder. The second is to premediate and negotiate representing concerns. The third one is to meet conflict groups and encourage them to meet. The following strategy is to probe and advise both sides. The

fifth strategy is to manage to be trusted in active and interested mediation. The final one is to make a local board for the planning staff for splitting the job.

Principles of the method of the principled negotiation are (i) separate the people from the problem, (ii) focus on interests not positions, (iii) invent options for mutual gain, and (iv) insist on using objective criteria (Fisher & Ury, 1991).

Godschalk (1992) identified guidelines for building an effective conflict management capability:

- Build negotiation-friendly climates and procedures
- Identify issues early and deal with them forthrightly
- Recognize disputes and provide resolution settings
- Invest in good tools to find solutions and joint gains

Fainstein (2000) criticized negotiation that it could solve some disagreements in siting unwanted facilities proximate to weak constituencies but the results satisfied the only symbolic benefits because of threat and bias in the process.

When negotiation is not succeeded, win-lose situations emerged in which both parties try to get maximum gain. In these situations, the parties having BATNA (best alternative to a negotiated agreement) have more power in negotiation and are able to achieve more of their goals (Levicki, Saunders and Barry, 2011; Fisher and Ury, 1991).

2.3.3. Both Conflict Minimization and Resolution

Some strategies proposed in theoretical studies are for both conflict minimization and conflict resolution (Susskind & Weinstein, 1980; Gregory et al., 1991; Ozawa, 1999; Lam & Woo, 2009; Chiou, 2011; Lesbirel, 2011). These strategies can be used both before and after conflicts emerged.

Making the best use of technology: Computer based communication technologies facilitate informing public about upcoming processes, distributing materials to participants and creating opportunities for online meetings without time constraints. Technical analysis for analysis stage of decision making can easily be conducted with tools such as statistical programs and geographic information systems. Technology also facilitates collecting information about interests by online questionnaires and online voting. These technologies create opportunities for feedbacks

by email. Another advantage of this proposal is the engagement of geographically remote or less mobile participants (Ozawa, 1999).

Compensation: Fair compensation and provision of community facilities are methods of conflict resolution (Susskind & Weinstein, 1980; Lam & Woo, 2009). Monetary or non-monetary compensation forms are used to resolve conflicts especially in facing NIMBY approach. Compensation allows NIMBY facilities to be accepted by local people. Examples are adopted in Japan and Taiwan (Chiou, 2011). Types of compensation are direct monetary payments, in-kind awards, contingency funds, property value guarantees, benefit assurances and economic good-will incentives (Gregory et al., 1991). Not the whole community but only the host community is considered in jurisdictional terms of effective siting including minimizing risks, compensating adequately and developing trust in an open and transparent way according to Lesbirel (2011).

2.4. Evaluation: A Method for Analyzing LULU Conflicts

When the literature is reviewed to find a way to understand, analyze and solve the planning process conflicts about LULUs, some classifications of issues about conflicts, parties, opposition reasons and strategies, approaches (Table 6) and methods used in conflict resolution or management processes (Table 7) are found. These issues are used to propose a method for analyzing conflicts in LULU site selection processes. The method is used in the case studies of this thesis to analyze the conflict processes and to propose recommendations for conflict resolution.

The schematic presentation of the method for analyzing LULU conflicts shows that there is a need to analyze processes both before and after the conflicts happened (Figure 3). All main subjects in the Table 6 and Table 7 are used in this scheme. The scheme shows that LULU conflicts relate with planning and conflict minimization process and they relate conflict resolution methods. The method provides questions to be asked to analyze conflicts and issues to be focused while answering these questions. The questions of case studies of this thesis are derived from these issues which are emphasized in theoretical studies.

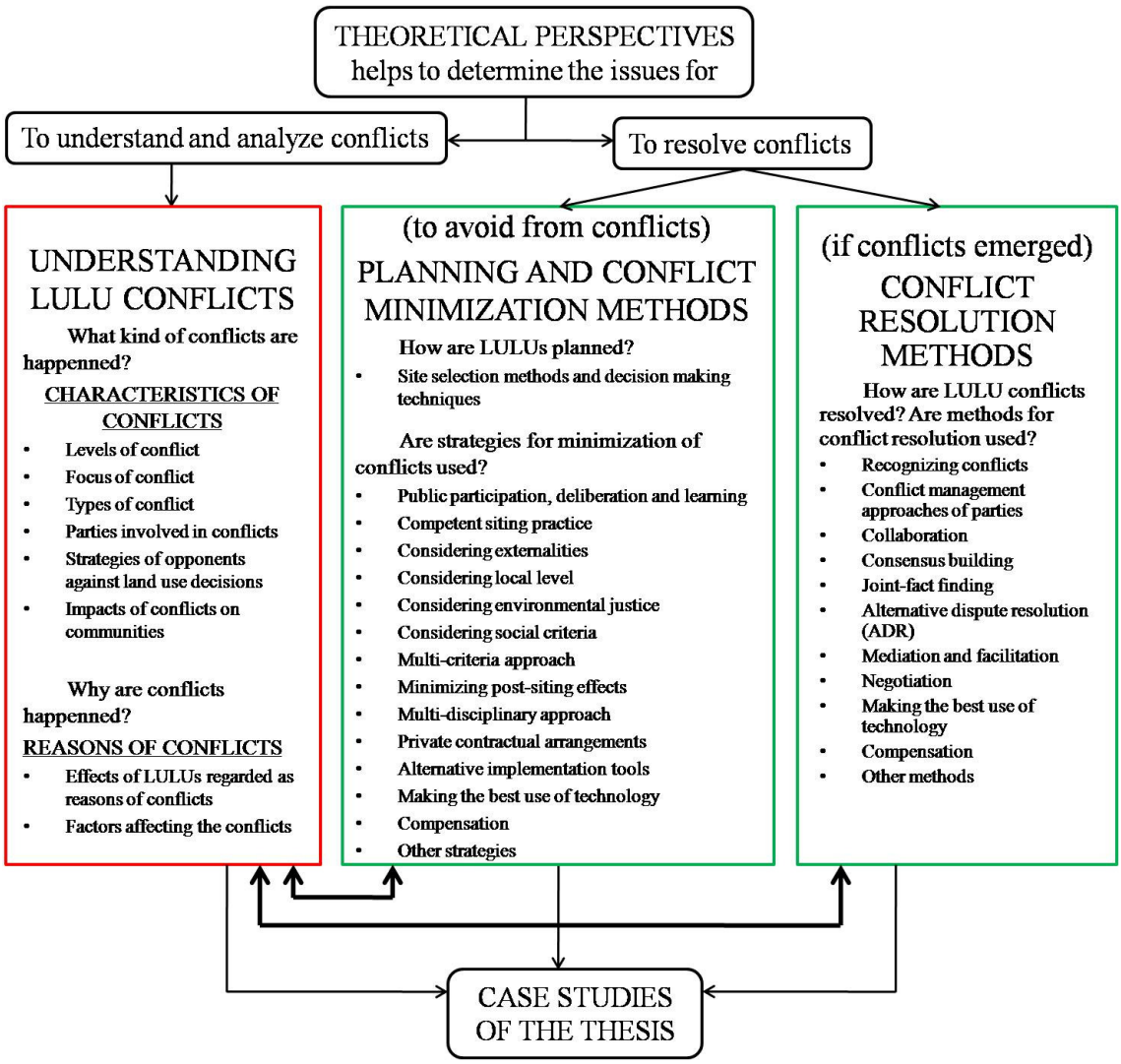

Figure 3. Analysis method of LULU conflicts in guidance of theoretical studies

Table 6. Issues to understand and analyze LULU conflicts

Characteristics of Conflicts
Level of Conflicts (Godschalk, 1992)
Issues (technical problems)
Disputes (unresolved and politicized issues)
Impasses (stalemated disputes involving intense disagreement)
Focus of Conflicts (Whetten & Cameron, 2011)
Issues
People
Type of Conflicts
Process conflict (Behfar et al.,2008 and Jehn and Mannix, 2001)
Task conflict (Behfar et al.,2008 and Jehn and Mannix, 2001)
Relationship conflict (Behfar et al.,2008 and Jehn and Mannix, 2001)
Internal conflict (Sellers, 1993 and Stiftel, 2001)
External conflict (Sellers, 1993 and Stiftel, 2001)
Parties involved in conflicts
Civil society / Representatives of special interests / Organizations and pressure groups (Lam & Woo, 2009; Kaiser et al., 1995; Jones et al., 2005)
Professional groups (Lam & Woo, 2009)
Government (Lam & Woo, 2009; Kaiser et al., 1995; Jones et al., 2005)
District Councils (Lam & Woo, 2009)
Political parties (Lam & Woo, 2009)
Private companies / Market oriented groups (Lam & Woo, 2009; Kaiser et al., 1995; Jones et al., 2005)
Community members (Owusu et al., 2011)
Local residents and other members of the public that are affected by planning decisions (Jones et al., 2005)
Land planners (Kaiser et al., 1995)
Strategies of opponents against land use decisions
Protests/ marches /demonstration/ mobilization/ public meeting (Baxter et al., 1999; Sherman, 2003; Mannarini, 2009)
Slow down the process (Baxter et al., 1999)
Attract media attention (Baxter et al., 1999; Sherman, 2003)
Adversarial: visible anger (Baxter et al., 1999)
Polite legal confrontation (Baxter et al., 1999)
Political lobbying (Baxter et al., 1999)
Petitions (Baxter et al., 1999; Sherman, 2003; Mannarini, 2009)
Re-consider previously eliminated sites (Baxter et al., 1999)
Letter writing/ phone calling (Baxter et al., 1999; Sherman, 2003)
Participation in the process (Baxter et al., 1999)
Campaigns against LULUs (Rootes and Leonard, 2009; Sherman, 2003)
Testifying at hearings (Sherman, 2003)
Citizen referenda (Sherman, 2003)
Lawsuits (Sherman, 2003)
Citizen research (Sherman, 2003)
Boycott (Sherman, 2003)
Civil obedience (Sherman, 2003)

(cont. on next page)

Table 6 (cont.)

Characteristics of Conflicts (cont.)
Impacts of Conflicts on Communities (Owusu et al., 2011)
Destruction of property
Tension, fear and insecurity
People were beaten/ physical assault
Others
Reasons of Conflicts
Effects of LULUs regarded as reasons of conflicts
Environmental pollution (Popper, 1985; Ishizaka & Tanaka, 2003; Lam & Woo, 2009; Rogge et al., 2011)
Noise/ sound pollution and odor (Popper, 1985; Henderson, 2003; Ishizaka & Tanaka, 2004; von der Dunk et al., 2006; Rogge et al., 2011; Owusu et al., 2012)
Possibility of property devaluation/ reduction of real estate value / financial risk (Henderson, 2003; Ishizaka & Tanaka, 2004; von der Dunk et al., 2006; Peyton, 2007; Kikuchi & Gerardo, 2009; Lam & Woo, 2009; Rogge et al., 2011)
Increases of traffic (Popper, 1985; Ishizaka & Tanaka, 2004; Kikuchi & Gerardo, 2009; Rogge et al., 2011)
Impact to ecosystem/ nature conservation (Ishizaka & Tanaka, 2004; von der Dunk et al., 2006; Schively, 2007; Rootes and Leonard, 2009)
Deterioriation of the landscape (Ishizaka & Tanaka, 2004)
Hatred for waste (Ishizaka & Tanaka, 2004)
Effect to health/ dangerous (Popper, 1985; Llurdes et al., 2003; Ishizaka & Tanaka, 2004; von der Dunk et al., 2006; Schively, 2007; Rootes and Leonard, 2009; Kikuchi & Gerardo, 2009; Lam & Woo, 2009; Rogge et al., 2011)
Safety /environmental safety/ risk (Llurdes et al., 2003; Peyton, 2007; Lam & Woo, 2009)
Environmental inequity/ injustice (Minchart and Neeman, 2002; Kikuchi & Gerardo, 2009; Rootes and Leonard, 2009)
Environmental related anxiety (daily stress) (Kikuchi & Gerardo, 2009)
Negative public impression of agricultural products (Economic effects of negative image)/ Fear for negative image after industry (Kikuchi & Gerardo, 2009; Rogge et al., 2011)
Possible stigmatization effects (Llurdes et al., 2003)
Effect to quality of life/ welfare loss of host community (Minchart and Neeman, 2002; Ishizaka & Tanaka, 2004; Lam & Woo, 2009; Kikuchi & Gerardo, 2009)
Visual pollution (Popper, 1985; von der Dunk et al., 2006; Rogge et al., 2011)
Changes to built/ natural environment (von der Dunk et al., 2006)
Threat to quarter reputation (von der Dunk et al., 2006)
Reduction of agricultural production (von der Dunk et al., 2006)
Loss of agricultural land (von der Dunk et al., 2006; Rogge et al., 2011)
Loss of open space (Rogge et al., 2011)
Scarcity of land (Rogge et al., 2011)
Interruption of the market (Rogge et al., 2011)
Disestablishment of commercial area (von der Dunk et al., 2006)
Cut backs on recreational area (von der Dunk et al., 2006)
Dust (von der Dunk et al., 2006)
Tremor (von der Dunk et al., 2006)
Light pollution (von der Dunk et al., 2006; Rogge et al., 2011)
Nuisance and disturbance (Lam & Woo, 2009)
Fear for additional developments (Rogge et al., 2011)

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Table 6 (cont.)

Reasons of Conflicts (cont.)
Factors affecting the conflicts
Siting experience (Lam & Woo, 2009)
Need for the LULU in the country (Lam & Woo, 2009)
Local need for the LULU (Lam & Woo, 2009)
Benefits to community (Lam & Woo, 2009)
Risk level of the LULU (Lam & Woo, 2009)
Fairness to local community/ procedural fairness (Nordenstam, 1994; Lam & Woo, 2009)
Trust in government (Baxter et al., 1999; Elliott et al., 2003; Ishizaka & Tanaka, 2004; Lam & Woo, 2009)
Design weaknesses (Bassett et al., 2002)
Tensions between planning and development priorities (Bassett et al., 2002)
Weaknesses in political leadership (Bassett et al., 2002)
Weaknesses in business leadership (Bassett et al., 2002)
Weaknesses in meeting deadlines (Andrew, 2001)
Lack of balance between parties (Andrew, 2001)
The strength of opposition groups (Bassett et al., 2002)
Discourses and counter-discourses (Bassett et al., 2002)
The role of the media (Bassett et al., 2002)
Inter-party conflict and the politicization of development issues (Bassett et al., 2002)
Lack of political guts (Rogge et al., 2011)
Lack of vision (Rogge et al., 2011)
Top-down decisions about the location (Rogge et al., 2011)
Nonexistent or bad communication (Rogge et al., 2011)
Inadequate information (Rogge et al., 2011)
Some cases of malpractice (Rogge et al., 2011)
Sources of conflict (Whetten & Cameron, 2011)
Personal differences (perceptions and expectations)
Informational deficiencies (misinformation and misrepresentation)
Incompatible roles (goals and responsibilities)
Environmental stress (resource scarcity and uncertainty)

Table 7. Issues to resolve LULU conflicts

Minimizing Conflicts
Public participation/ public deliberation and learning (Arnstein, 1969; Forester, 1999; Carpenter, 1999; Magigi, 2010)
Participation level of parties (Arnstein, 1969)
Manipulation (Nonparticipation)
Therapy (Nonparticipation)
Informing
Consultation
Placation
Partnership
Delegated power
Citizen control
Stakeholder involvement (Susskind & Weinstein, 1980; Kemp, 1992b; Healey, 1997 & 2003 & 2006; Bryson, 2004)
Principles of competent siting practice
Develop trust/ strengthen public trust in government (Lam & Woo, 2009; Baxter et al., 1999; Ishizaka & Tanaka, 2004; Elliott et al., 2003)
Equity (Baxter et al., 1999)
Public Participation/ Consolidate participatory planning at local level (Nordenstam, 1994; Baxter et al., 1999; Margerum, 2002; Magigi, 2010)
Communication/ Strengthen the relationship between the policy makers/ among diverse stakeholders (Nordenstam, 1994; Elliott et al., 2002; Kikuchi & Gerardo, 2009; Magigi, 2010)
Considering externalities (Klosterman, 2003)
Considering local level (Peeples, 2000; Minchart & Neeman, 2002; Lam & Woo, 2009)
Considering environmental justice (Been 1994; Rootes & Leonard, 2009)
Considering social criteria (Llurdes, Sauri, & Cerdan, 2003)
Multi-criteria approach (Vasiloglou, 2004; Colebrook; 2005; Chau, 2005; Banar et al., 2006; Chang et al., 2008; Sumathi et al., 2008; Ramjeawon and Beerachee, 2008; Ersoy and Bulut, 2009; Wang et al., 2009; Aragones-Beltran et al., 2010; Sener et al., 2010 & 2011; Ekmekcioglu et al., 2010)
Minimizing post-siting effects (Been, 1994; Lam & Woo, 2009)
Multi-disciplinary approach (Nordenstam, 1994)
Private contractual arrangements (Penington, 2004)
Alternative Implementation Tools (Roberts, 1988; Levy, 2000)
Capital investment programming
Development regulations/ land use controls
Alternative zoning techniques
Conflict Resolution
Recognizing conflicts (Forester, 1999)
Conflict Management Approaches of Parties (Whetten & Cameron, 2011)
Forcing
Accommodating
Avoiding
Compromising
Collaborating

(cont. on next page)

Table 7 (cont.)

Conflict Resolution (cont.)
Chacteristics of collaborative process (Elliott et al., 2003)
Beneficial
Durable
Knowledgeable
Interactional/ communicative
Efficacious
Responsive
Efficient
Consensus Building (Susskind & Cruikshank, 1987; Carpenter, 1999; Susskind, McKearnan and Thomas-Larmer, 1999; Elliott, 1999; Beierle and Cayford, 2001; Margerum, 2002; Baum, 2003; Golet, Anderson, Luster, & Werner, 2009; Goldstein & Butler, 2010; Cullen, McGee, Gunton, & Day, 2010)
Joint fact-finding (Ehrmann and Stinson, 1999)
Type of ADR (Andrew, 2001)
Mediation
Negotiation
Facilitation
Procedural criteria of mediation (Holzinger, 2001)
All the relevant actors participated fully in the procedure.
A consensus on the mediator was reached.
Individual participants or groups did not abandon the procedure prior to its conclusion.
The procedural rules were adhered to or changed by consensus.
Those participating in the mediation procedure approve of the way in which it was conducted.
Participants in the procedure approve of the mediator.
Debate was conducted openly and even-handedly.
Those participating in the procedure retained credibility with their respective organizations and constituencies
Consensus was reached on ending the procedure.
Results-related criteria of mediation (Holzinger, 2001)
Participants in the mediation procedure were able to extend their knowledge of the issue.
The participants' increased awareness of the issues has meant a change in their perspectives on the problem.
Social relations between the participants have improved as a result of the procedure.
A decision was reached with which most or all of the participants could agree.
The agreement dealt with most or all of the relevant aspects of the problem.
The results of the mediation were endorsed by the organizations represented in the procedure.
The procedure shortened the time required to resolve the problem compared with conventional procedures, including litigation.
The monetary costs of planning were lower as a result of the mediation compared with conventional procedures, including litigation.
The participants in the mediation would, under similar circumstances, attend a similar procedure in the future.

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Table 7 (cont.)

Conflict Resolution (cont.)
Negotiation strategies (Forester, 1987)
The facts! The rules! The planner as a regulator
Premediate and negotiate – representing concerns
Let them meet – the planner as a resource
Perform shuttle diplomacy – probe and advise both sides
Active and interested negotiation – thriving as a nonneutral
Split the job – you mediate, I'll negotiate
Issues affecting the success of ADR process
Number of parties/ people involved in the ADR process (Andrew, 2001)
Full range of stakeholders and participation on an equal basis (Andrew, 2001 and Nawaz & Sattar, 2008 and Margerum, 2002)
Available participant funding (Andrew, 2001)
Participation of the government if its approval of a settlement was required (Andrew, 2001)
ADR process jointly designed and controlled by all of the parties (Andrew, 2001)
Neutrality of the facilitator or mediator (Andrew, 2001)
Whether deadlines were used effectively in the ADR process (Andrew, 2001)
Whether there were good relationships between the parties at the start of ADR (Andrew, 2001)
Whether there was a balance of power between the parties in the ADR process (Andrew, 2001)
Whether the ADR process was confidential (Andrew, 2001)
Efficiency of ADR (i.e.resolve the conflict more quickly and at less cost than the conventional process) (Andrew, 2001)
Participant satisfaction with the ADR process (Andrew, 2001)
Representation of all affected in the ADR process (Holzinger, 2001)
Social acceptance of the results (Holzinger, 2001 and Kikuchi & Gerardo, 2009)
Maximization of joint gains (Holzinger, 2001)
Compatibility of the (ADR) procedure with democratic principles (Holzinger, 2001)
Consistency of the result with the existing law (Holzinger, 2001)
Principles/guidelines/steps/ requirements/methods in the principled negotiation/collaborative problem solving
Build negotiation-friendly climates and procedures (Godschalk, 1992)
Identify issues early and deal with them forthrightly (Godschalk, 1992)
Recognize disputes and provide resolution settings (Godschalk, 1992)
Invest in good tools to find solutions and joint gains (Godschalk, 1992)
Support and facilitate the process (Margerum, 2002)
Establish a common problem definition and a shared task (Margerum, 2002)
Organize the process in terms of ground roles, agendas, etc. (Margerum, 2002)
Reach agreement through consensus (Susskind and Cruikshank, 1987; Margerum, 2002; Elliott et al., 2003)
Establish superordinate goals (Whetten & Cameron, 2011)
Separate the people from the problem (Whetten & Cameron, 2011 and Fisher & Ury, 1991)

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Table 7 (cont.)

Conflict Resolution (cont.)
Principles/guidelines/steps/ requirements/methods in the principled negotiation/collaborative problem solving (cont.)
Focus on interests, not positions (Whetten & Cameron, 2011 and Fisher & Ury, 1991)
Invent options for mutual gains/ A voluntary effort to seek all-gain rather than win-lose solutions or watered-down political compromise (Susskind and Cruikshank, 1987; Fisher & Ury, 1991; Margerum, 2002; Whetten & Cameron, 2011)
Use objective criteria for evaluating alternatives (Whetten & Cameron, 2011 and Fisher & Ury, 1991)
Define success in terms of real gains, not imaginary losses (Whetten & Cameron, 2011)
Identifying the parties that have a stake in the outcome of a dispute (Susskind & Weinstein, 1980)
Ensure that groups or interests that have a stake in the outcome are appropriately represented (Susskind & Weinstein, 1980)
Narrowing the agenda and confronting fundamentally different values and assumptions (Susskind & Weinstein, 1980)
Generating a sufficient number of alternatives or options (Susskind & Weinstein, 1980)
Agreeing on the boundaries and time horizon for analysis (Susskind & Weinstein, 1980)
Weighting, scaling and amalgamating judgments about costs and benefits (Susskind & Weinstein, 1980)
Implementing the bargains that are made (Susskind & Weinstein, 1980)
Holding the parties to their commitments (Susskind & Weinstein, 1980)
Informal, face-to-face interaction among specially chosen representatives of all stakeholding groups (Susskind and Cruikshank, 1987)
The assistance of a neutral facilitator or mediator (Susskind and Cruikshank, 1987)
Explaining the need of facility (Lam & Woo, 2009)
Considering different opinions/ Take account of richness of local community perspectives/ analyzing the differences between group attitudes (Bauer & Wegener, 1975; Lam & Woo, 2009; Nash et al., 2010)
Effective mitigation measures (Lam & Woo, 2009)
Effective monitoring and audit programme (Lam & Woo, 2009)
More consultation with affected community (Lam & Woo, 2009)
Provision of community facilities (Lam & Woo, 2009)
Both Minimizing and Resolving Conflicts
Compensation (Susskind & Weinstein, 1980; Gregory et al., 1991; Lam & Woo, 2009; Lesbirel, 2011; Chiou, 2011)
Making the best use of technology (Ozawa, 1999)

CHAPTER 3

PREVIOUS STUDIES ABOUT LULU CASES

In this chapter, case studies in previous studies are reviewed with two main aims. The first aim is to find out the research methodologies used by previous researchers interested in LULU conflicts. The second aim is to learn the decision making tools and site selection methods proposed for various LULUs.

As various professions and disciplines are concerned with site selection of LULUs, there are several case studies in journals related with fields such as planning, environment and management. While some of these case studies focus on tools and models for finding most suitable locations for specific kinds of LULUs, some others try to explain and evaluate the site selection processes in terms of conflicts, interest groups and reasons of disputing attitudes. These two types of case studies are reviewed separately to fulfill the twofold aim of this chapter.

3.1. Case Studies on Site Selection Methods of LULUs

The studies proposing various methods for site selection of LULUs are selected to find out how previous case studies explored the way of decision making about LULUs. Although some of these studies do not use LULU concept, they all try to find methods or tools for analyzing, evaluating or selecting sites for land uses which are considered as LULUs. They all focus on a specific kind of LULU such as solid waste landfills and hazardous waste facilities.

The study of **Vasiloglou (2004)** is one of the studies proposing a decision making tool for landfill site selection. He suggested a tool constituting a third-generation multi-criteria decision support system (MCDSS). It included data, dialoging and model subsystems. Its main functions were to provide an intermediary between experts and decision-makers helping decision-makers to understand the experts' knowledge and an independent processor of decision-makers' judgments thereby giving a rational selection procedure. The tool was proposed with an aim of a wider community participation and acceptance. The results showed that the tool utilized the

experts' knowledge and took into account local authority and public opinion, averting the violation of prospective agreements.

Ramjeawon and Beerachee (2008) presented a case study using an application of a multi-criteria decision analysis (MCDA) methodology – the analytical hierarchy process (AHP) – for assessing and ranking of four candidate sites for a sanitary landfill on the small island of Mauritius after evaluation of them with three main criteria: technical, environmental and socio-economic. 21 sub-criteria were determined and scores were assigned to each criterion and sub-criterion by stakeholders to find their relative importance. Then the analytical hierarchy process was applied and the candidate sites were ranked to obtain the optimum site. The worst and the best sites were also found by using the proposed technique.

Ekmekçioğlu and others (2010) also considered environmental, social, technical and economic aspects while proposing the use of fuzzy multiple criteria analysis in selection of municipal solid waste disposal sites. A modified fuzzy TOPSIS (The technique for order preference by similarity to an ideal solution) methodology is proposed in İstanbul case. The authors discussed that the method they proposed had the advantage of rendering subjective and implicit decision making more objective and analytical, with its ability to accommodate both quantitative and qualitative data. The best method of municipal solid waste disposal was determined by optimizing a set of criteria including cost, reliability, feasibility, pollution and emission levels, and waste and energy recovery. The alternative methods were landfilling, composting, conventional incineration, and refuse-derived fuel. The weights of selection criteria were determined by fuzzy pairwise comparison matrices of Analytic Hierarchy Process (AHP). Refuse-derived fuel combustion was found the best disposal method alternative for Istanbul. In the following stage, the optimum location in Çatalca was found using adjacent land use, climate, road access and cost as the criteria. The authors concluded that their methodology proposal could be used in other cities.

Banar and others (2006) proposed another type of multi-criteria decision making tool of analytic network process (ANP) in choosing a municipal landfill site for the city of Eskisehir, Turkey. They used Super Decision Software and made benefit opportunity cost and risk (BOCR) analysis to choose one of the four alternative landfill sites. They evaluated alternatives with technical, economical and social assessments. They found that currently used site was the best alternative in both ANP and AHP methods. They also emphasized the need for immediate rehabilitation of the site.

Aragones-Beltran and others (2010) used two different ANP models: one hierarchy model and another network-based model in their case study of siting a municipal solid waste plant in the Metropolitan Area of Valencia (Spain). They described the whole process as a complex multi-criteria decision making problem that requires an extensive evaluation process of the potential municipal solid waste plant locations and other factors as diverse as economic, technical, legal, social or environmental issues. They identified 6 candidate sites and 21 criteria grouped into clusters. They performed two models and compared both of the results. They found that the network-based model was better because the technicians perceived the influences among the elements of the system.

Chang and others (2008) proposed a combination of geographical information systems (GIS) with fuzzy multi-criteria decision-making (FMCDM) for landfill siting. They prepared a case study for the city of Harlingen in south Texas. Their study included two sequential stages. In the first step, thematic maps are produced in GIS by using environmental, biophysical, ecological, and socioeconomic variables. In the second stage, FMCDM is used. The aim was to identify the most suitable site using the information provided by the regional experts with reference to five chosen criteria. Sensitivity analysis was also performed using Monte Carlo simulation where the decision weights associated with all criteria were varied to investigate their relative impacts on the rank ordering of the potential sites in the second stage.

Schumati and others (2008) also used a multi-criteria decision analysis (MCDA) and overlay analysis using a geographic information system (GIS) together in landfill site selection. The aim of their study was to examine an approach for identifying the optimum site of a landfill in Pondicherry, a typical urbanizing city of India. First, a set of criteria were determined and then three most suitable sites for landfill was selected from 17 potential sites. The factors considered in the siting process were geology, water supply resources, land use, sensitive sites, air quality and groundwater quality. Weights were assigned to each criterion depending upon their relative importance and ratings in accordance with the relative magnitude of impact. The Delphi technique was employed for identifying the key governing criteria for landfill site selection by sending a set of questionnaires to the policy makers of key government departments of Pondicherry. Main and sub categories were identified and a sequential hierarchy of the multi-criteria problem was developed. AHP was employed. A weighted sum aggregation function was employed to arrive at a Composite Suitability Index and a

comparison matrix among the criteria was developed to compute an eigenvector. The alternative with the highest eigenvector value was considered to be the first choice. The authors emphasized the flexibility of the proposed approach in its application to different sites with diverse local conditions.

Another study using both AHP and GIS was prepared by **Ersoy and Bulut (2009)**. They proposed a landfill siting model including four steps and used this model in landfill site selection in Trabzon. The first step was development of GIS database and creating maps; the second step was determination of the criteria and sub-criteria weights and evaluation of the hierarchical structure of the multi-criteria problem using AHP; the third step was application of spatial analysis using weights in GIS; the last step was determination of the most suitable landfill site among alternatives by using AHP based methodology. The results of the model in Trabzon showed Düzyurt area as the most suitable site. Another note from authors was that the model provided objective mathematics to process the subjective preferences of individuals or groups and to arrive at a decision.

Wang and others (2009) also offered a landfill siting methodology including both AHP and GIS in their study about the solid waste landfill site selection problem in Beijing, China. They emphasized that these problems were so complex that multiple alternative solutions were required. They used spatial information technologies to grade maps from lowest suitability to highest suitability. They determined weights of criteria and selected best, good and unsuitable landfill areas. They used 13 criteria including both environmental and economic factors in evaluation. They prepared a final composite suitability map. They described their model to be objective, flexible and useful for fast growing regions.

The combination of GIS with AHP in landfill site selection was also proposed by **Şener and others (2010)**. They tried to determine the most suitable landfill site for the Lake Beyşehir catchment area, Konya, Turkey. They identified several criteria such as geology/ hydrogeology, land use, slope, height, aspect and distance from settlements, surface waters, roads, and protected areas (ecologic, scientific or historic). Then, they evaluated these criteria with AHP and mapped by GIS. They used four suitability classes. Finally, they suggested two candidate landfill sites and emphasized that the final decision would require more detailed field studies including detailed geological and geotechnical investigations, land ownership, questionnaire investigations to

determine public acceptance, detailed waste inventory, and determination of construction suitability.

In another study, **Şener and others (2011)** added remote sensing methods to AHP and GIS in landfill site selection. Their case study was solid waste disposal site selection, Senirkent–Uluborlu Basin, Isparta, Turkey. They used 10 different criteria including lithology, surface water, aquifer, groundwater depth, land use, lineaments, aspect, elevation, slope, and distance to roads. They performed overlay analyses in GIS and produced suitability maps. They asked the participating decision makers to evaluate elements within each stratum of the hierarchy. They prepared comparison matrices and used AHP. At the end of the study they investigated suitable regions for landfill.

Besides studies using multi-criteria analyses, there are studies proposing different methods for site selection of solid waste disposal areas. One of them is the study of **Zeiss and Atwater (1993)** focusing on landfills in Western Canada, Washington and Oregon. Their study identified simple screening models and required data to predict air quality, odors, noise, and visual impacts. They found that simple predictive methods described the nuisance footprint of the facility with adequate data on environmental conditions. They also found that the impact screening methodology could be used to estimate distance required to reduce impacts to acceptable thresholds and to determine required buffer zones.

Another proposal for the site selection of a landfill site was a prototype system suggested by **Chau (2005)**. The system integrated the heuristic and empirical knowledge into a decision support system. It assisted in making selection of an appropriate landfill site. It incorporated an artificial neural network. The advantages of the system were listed as increase in efficiency, improvement, consistency of results and automated record keeping. It was also found to be good at transferring knowledge. The requirements of the landfill site selection process were noted as expert effort, designing the general scheme and a uniform ranking procedure, identifying constraining regulations, analyzing data and selecting a specific landfill site together with size.

Al-Jarrah and Abu-Qdais (2006) proposed an intelligent system based on fuzzy inference in siting a new landfill in their case area of Al Ghabawi landfill site in Amman Jordan. They considered several factors including topography and geology, natural resources, socio-cultural aspects, and economy and safety. They designed the system to rank sites with a weighting scale. The results showed the effectiveness of the

system in site selection process. The authors noted that their proposed system could be used as a tool by planners and decision makers.

Geneletti (2010) proposed a method based on the combination of stakeholder analysis and spatial multi-criteria evaluation (SMCE) to first design possible sites for an inert landfill, and then rank them according to their suitability. He applied this method to siting of an inert landfill in the Sarca's Plain, located in southwestern Trentino, an alpine region in northern Italy. First, he conducted stakeholder analysis and identified the criteria. And then, he applied SMCE techniques to combine the criteria and obtain a suitability map. He assessed all criteria, extracted the most suitable sites and performed sensitivity analyses. He found three top-ranking sites located close to each other. He concluded that the use of different criteria in the different stages of the analysis allowed to better differentiate the suitability of the potential landfill sites.

Besides studies describing models and methods for site selection of solid waste landfills, there are also studies exploring the way of decision making about treatment, storage and disposal facilities (TSDFs) of hazardous wastes. One of these studies is the study of **Huitema (2003)** who evaluated the hazardous waste facility site selection processes of three countries. He found that the role of the community in Canadian siting processes was at the expense of the private sector and elected representatives, institutions that played an important role in the UK and Dutch cases. Three projects from three cities of these countries were analyzed and compared with four main criteria for decision quality: technical, economic, social and political. The last two of the criteria were about the avoidance of conflict. The Canadian projects were the best in social quality because they were greatly desired by the society. Only one project from Canada could not be built because of financial situation whereas the waste problem is solved in others. According to Huitema (2003), decisions were 'socially rational' if they enhance integration and avoid conflict. In description of legal rationality, when conflict aroused, the courts clarified the rules and ended disagreement; however, he concluded that "the courts are a relatively slow institution that does not really solve conflicts" and "conflict can be avoided by the community-based approach, certainly if the process is terminated when signs of opposition develop". Community based approach was noted to have great advantages in terms of the social acceptance of the proposals of hazardous waste facilities.

3.2. Case Studies on Conflicts in Planning Processes of LULUs

The second group of case studies includes studies aiming to obtain insight into the site selection processes of LULUS, reasons of conflicts in these processes, the interest groups involved and the underlying factors in social movements against LULUs. They are reviewed with an aim of determining the range of research methodologies performed in studies with similar topics. The studies evaluating site selection processes of LULUs include cases from USA, Korea, Greece, Canada, Portugal, Japan, the UK, Belgium, Taiwan and Italy.

Sellers (1993) examined the facts, failures and the reasons of the failures in the decision making process of a biomedical incinerator in a small city in North Carolina. He analyzed the policy making techniques used by local governments for introducing unwanted public goods to a community. He used a telephone survey including a questionnaire of 18 items. The questionnaire provided open-end responds when appropriate. 171 telephone calls were made using a random numbers table. A near 100% response rate was achieved. Sellers described two types of policy conflict as internal and external. He found that the incinerator issue in his case study was affected by external conflict. The conflicts were aroused by an outer interest group and supported only by a minority of county residents. Survey findings also showed that a significant number of residents would want more information about the issue before making up their minds. The study suggested local government decision-makers to be more sensitive to the power and influence of interest groups in the decision-making process.

Chung, Kim and Rho (2008) had two objectives in their study about a radioactive waste facility in Gyeongju, Korea. The first one was to verify Gyeongju citizens' average level of risk perception of a radioactive waste disposal facility as compared to other risks. They selected the respondents from the parents and other adult family members of middle school students. The questionnaires were distributed on April 19–20, 2007 and collected on May 5, 2007. The return rate was 53.7%. The local residents' risk perception of an accident in a radioactive waste disposal facility was ranked seventh among a total of 13 risks. The second objective of their study was to explore the best model for predicting respondents' acceptance level using variables related to cost-benefit, risk perception, and political process. In this part they compared the cost-benefit model and risk perception model in predicting the acceptance of the

radioactive waste disposal facility. They selected variables, made multiple regression analyses for each model, and compared the effectiveness of their fit. The comparative regression analyses showed that the cost-benefit and political process models were more suitable for explaining the respondents' level of acceptance than the risk perception model. The authors concluded that people's risk perception was usually more critical than just benefit and cost for the siting of hazardous facilities, particularly nuclear-related facilities.

Kaliampakos and others (2011) studied land use conflicts between an archaeological site and an aggregate quarry and a concrete plant on the island of Andros in Greece. The study presented the data and assessment of the impacts of the facilities gained in the environmental research program conducted in their laboratory. The results showed that the relocation would have a possibility of the same situation because of the touristic character of the island. Also, the closure of the plant and quarry would be significantly bad for island's economy. At the end, a win-win solution was found in which the industry continued operating after several steps. First, environmental impacts were assessed and main concern was found as the visual impacts. Then, some actions to eliminate visual impacts were proposed. Besides, some landscape and infrastructure developments for the archaeological site were enhanced.

Liu's study (1997) about the solid waste facilities (mini-incinerators and landfills) in Houston, USA aimed to understand pretreatment and posttreatment social changes. He collected census data of various years (1960-1970 for presiting change, 1970-1980 for postsiting change) including family income variables and race variables. Two test methods were applied: a two-sample t test and a two-sample Wilcoxon rank-sum test. He analyzed the relationship between LULUs and neighborhood changes and the effects of LULUs on environmental inequity. He found that neighborhood changes are caused by driving forces in addition to effects of solid waste facilities in Houston. Furthermore, no evidence is found that the LULU makes the host neighborhoods home for more black and poor people.

Greenberg and others (2007) surveyed people living within 50 miles of six existing DOE (U.S. Department of Energy) nuclear weapons sites, asking about their attitudes toward banning additional nuclear activities at these sites and about factors that might influence these attitudes. They designed a survey instrument with more than 70 questions. It was a survey by telephone using random digit dialing, aiming to obtain 200 responses for each of the six sites. They got 44% response rate overall and collected a

total of 1,351 responses between July 14 and August 2, 2005. The researchers found that most respondents did not want new nuclear activities in their areas, and those who knew little about the existing sites were worried about them and did not trust the DOE. A majority of respondents at five of the six sites opposed new nuclear activities at the sites, and this was a strong preference. Also not surprising was the finding that those who were familiar with the facilities were much more open than others to the idea of locating new nuclear activities at the existing sites. The researchers noted that if they hope to locate new nuclear land uses they must change their strategy to a new one including an understanding of and empathy for the interrelated factors that cause so many people to say "not in my back yard" to nuclear activities.

Steelman and Carmin (1998) prepared a case study of the siting of a limestone mine on Laurel Mountain, West Virginia, USA. They aimed to gain further insight into local mobilization, the emergence of resource regimes, and the degree to which individual versus collective interests influence opposition to unwanted land uses. They summarized the story of opposition to mines in case area and qualitatively analyzed the comments on public hearing. The analyses were sorted into groups representing each of the major issues voiced by the residents. The specific categories of concern were trust and credibility, equity, self-determination, and stewardship. The case demonstrated that common property resources could play a role in mobilizing community opposition to an unwanted land use. The presence of common property resources would have provided a stronger rationale for sustained action than individual property or private gain.

Guidotti and Abercrombie (2008) studied the conflicts in a proposed landfill for the city of Edmonton in Alberta, Canada. They used the services of an experienced investigative reporter to conduct a series of interviews with the major players. They began by using a structured questionnaire, but found it too constraining; therefore abandoned the questionnaire and used flexibly structured interviews. They conducted 46 interviews in 2 years by telephone and in person. Then, they made thematic analyses of the interviews and identified technical and contextual issues. They concluded that the political history of the community plays a major role in conditioning the response to ‘locally undesirable land use’ (LULUs) and the NIMBY phenomenon. Also, they added that the planning process for such decisions about location of facilities should take into account the history of relationships among the jurisdictions involved and the sediments of residents for avoiding conflicts.

Kikuchi and Gerardo (2009) described NIMBY opposition to stop local siting of hazardous waste facilities and other LULUs. They emphasized that no matter how technically excellent a proposed facility was, there was a strong possibility that its siting might be obstructed by a NIMBY movement. They studied a Portugal case, situated the levels of acceptance of a co-incineration facility for hazardous waste, described the direct and indirect socio-economic effects originating from this facility, and proposed a communicative approach to solve the conflicts about hazardous waste facilities. They reported that communication lines should be open at the early stages of a project (i.e., information is transparent and accessible) to make the relationships between the public and the waste management planner more positive. Also, they described the following necessary communication steps. First, the planner of the waste management site should serve as an educator and/or informant and should be as knowledgeable as possible about each field where interests lie. In addition, public meetings at which brainstorming is encouraged can be helpful in identifying opponents and community members may offer certain ideas that can improve the project. It is also essential to have a talk with local representatives who influence perception of the project. And finally, planners and decision-makers sometimes need to be able to adapt to certain unique requirements (i.e., flexibility) through open communication.

Göncüoğlu Eser & Luloff (2003) performed a qualitative research with an aim of examining factors behind the various attitudes towards a proposed limestone quarry in Haines Township, PA, USA. They used data collection methods of document analyses, informant interviews and a drop-off/pick-up survey. 18 key informants are interviewed. 327 households are surveyed and 294 questionnaires are delivered. The return rate was 69,7%. Data were coded to identify emergent themes. Quotations were selected and arranged by theme. They found that rural newcomers and oldtimers of the community differed in terms of their perceptions towards quarries and responses to changes in natural resource use and related environmental issues.

Ishizaka and Tanaka (2003) discussed the subject of risk communication for the waste disposal system in Japan in their study about the siting of waste disposal facilities in T city, Okayama Prefecture, Japan. They performed personal interviews and a questionnaire covering opposing parties. 55 municipal officers responded to the questionnaires. The authors noted that it was difficult to seek information from individual residents; therefore, they conducted personal interviews with 12 opposing groups. The answers were critically reviewed and analyzed. They presented a risk

communication approach for a waste treatment and disposal system addressing issues such as building of social trust, pragmatic use of the communication process, installation of credible information sources, and environmental education and awareness.

Courtright and others (2010) selected four cases from state correctional institutions (SCIs) in Pennsylvania (Albion, Cambridge Springs, Dallas, and Houtzdale) and aimed to recommend policies that may improve the relationships between correctional institutions and their host communities. Three methodologies included (a) focus group interviews with selected local government leaders and representatives from both the business community and other community agencies, (b) semi-structured interviews with prison management, and (c) a mail survey of community residents. Content analysis of the transcribed interviews (both for a and b) was employed to identify major themes in the discussions. The results showed that the siting process for future prisons and correctional facilities would be improved by policy recommendations which facilitate improvement in the prison-community relationship. The authors added that these recommendations could not easily be implemented and that they would require more time, political will, legislative action, and agency commitment to initiate.

The study of **Cass and Walker (2009)** considered different factors underlying the oppositional activism in renewable energy projects and the role of emotion within these. The authors examined wind farm developments in the UK as a case study. They conducted semi-structured interviews to examine the interest groups involved in the process and their subjectivities. 42 people including developers; policy-makers and regulators; NGOs and interest groups; politicians; consultants; manufacturers, engineers and designers of different renewable energy technologies and financiers were interviewed by using snowballing process. The transcripts were coded by two researchers to identify responses to headline research questions raised in the interviews. A thematic analysis was also performed. The results showed that the reactions to wind farm developments are seen as highly emotional and as actively played upon by oppositional groups.

Schaffer Boudet and Ortolano (2010) aimed to explain the mobilization efforts of project opponents in two cases of attempts to site liquefied natural gas terminals in California (the Mare Island Energy Project and the Cabrillo Port Project) and to understand the factors and processes in explaining these efforts. They emphasized that understating opposition to LULU proposals was of critical importance to planners, who

often found themselves in the middle of siting debates. They focused on four factors including threat, political opportunity, resources and appropriation, and loss of trust. They used relevant newspaper articles, regulatory documentation, and interviews. They collected a total of 309 articles and 771 letters to the editor from three local newspapers and analyzed them to create a chronology of events and to select potential interviewees. They used snowball sampling method in which potential interviewees were selected by asking to former informants. They conducted 16 interviews in the first case from July 2006 to October 2007 and 24 interviews in the second case from March 2007 to April 2008. Informants included mayors, City Council members, county supervisors, staff from relevant state agencies, company representatives, reporters, opponents, supporters, and by-standers (i.e., community members who did not take part in the debate). Interviews were structured as a guided conversation and lasted an hour and fifteen minutes on average. The authors also collected and coded 883 "speeches" at public meetings by using Atlas.ti 5.2 software. Both "open" or "free" coding and "focused" coding are used. The findings of the study comparing two cases indicated that either a significant endowment of resources or a combination of threat and political opportunity is important for mobilization.

Rogge, Dessein, and Gulinck (2011) aimed to obtain insight into the reasons, underlying motives and processes that steer the public resistance to greenhouse clusters in Flanders. They followed the grounded theory approach. They chose a small number of cases including in-depth data for theory construction, rather than a random selection of a large number of data. They interviewed 24 respondents over a period of 5 months. The open interviews lasted approximately 1.5 h. They performed open coding in the first phase, axial coding in the second phase and selective coding in the third phase. Then they distinguished 63 concepts and 12 categories that determine the public attitude towards the development of large-scale greenhouses. They found that the protest actions are complex and cannot be attributed to a single concept such as the NIMBY-concept. They also emphasized that a qualitative research approach can contribute valuable information to the process of a planned landscape change.

The study of **Chiou and others (2011)** evaluates the effectiveness of negotiated compensation for a NIMBY-related facility of incinerators in Taiwan. They first conducted 60 in-depth interviews with stakeholders of 15 incinerators and host communities and then 765 structured telephone interviews with residents living near 9

incinerators. They recommended fair and open negotiated compensation processes to resolve conflicts and to increase the local acceptance of LULUs.

Piazza (2011) compared four cases about conflicts related to LULUs in Italy: a high-speed rail line, a bridge, a military base and a refuse site and investigated the role of left-wing parties in these conflicts. Factors explaining strategic choices of left parties and their consequences for LULU movements are identified. Qualitative analysis including press reviews and participant observation is used. The study found that the role of left parties can be explained with factors that the policy-making emerged from both a new centre/periphery political cleavage (national majoritarian democracy vs. local participatory democracy) and a new economic cleavage (growth/economic development vs. alternative models of development) in addition to the 'political opportunity structure' model.

3.3. Evaluation of Previous Case Studies

Two groups of case studies are reviewed: studies on site selection methods and studies on LULU conflicts. The studies in the first group are published in a variety of journals including Waste Management, Journal of Environmental Management, Environmental Geology, Civil Engineering and Environmental Systems, Waste Management and Research, Environmental Monitoring and Assessment, Environmental Technology, and Journal of Hazardous Materials. While the articles in the first category are not published in any planning journals, some studies in the second category are published in Journal of the American Planning Association, Land Use Policy, Journal of Planning Education and Research. This shows that articles on planning journals mostly focus on subjects in the second group.

The first group includes 16 studies focusing on technical aspects of the site selection processes (Table 8).

Table 8. Previous case studies on site selection of specific LULU types

	Author(s)	Year	Name of the Study	Case Area	Site Selection Methods
Studies proposing multicriteria analysis methods	Vasiloglou	2004	New tool for landfill location	The landfill in West Thessaly of Greece	multicriteria analysis methods
	Ramjeawon and Beerachee	2008	Site selection of sanitary landfills on the small island of Mauritius using the analytical hierarchy process multi-criteria method	A sanitary landfill on the small island of Mauritius	analytical hierarchy process (AHP): one of the multi-criteria analysis methodology
	Ekmekcioglu et al.	2010	Fuzzy multicriteria disposal method and site selection for municipal solid waste.	Site selection for municipal solid waste in İstanbul	fuzzy multicriteria analysis methods
	Banar et al.	2006	Choosing a municipal landfill site by analytic network process	A municipal landfill site in the city of Eskisehir, Turkey	Analytic Network Process (ANP): one of the multi-criteria analysis methodology
	Aragones-Beltran et al.	2010	An Analytic Network Process approach for siting a municipal solid waste plant in the Metropolitan Area of Valencia (Spain)	A municipal solid waste plant in the Metropolitan Area of Valencia (Spain)	Analytic Network Process (ANP): one of the multi-criteria analysis methodology
Studies proposing combination of the multicriteria analysis and geographic information systems (GIS)	Chang et al.	2008	Combining GIS with fuzzy multicriteria decision-making for landfill siting in a fast-growing urban region	Landfill sites in the city of Harlingen in south Texas	combination of the multicriteria analysis and GIS
	Sumathi et al.	2008	GIS-based approach for optimized siting of municipal solid waste landfill	Landfill site selection for Pondicherry, a typical urbanizing city of India	combination of the multicriteria analysis and GIS
	Ersoy and Bulut	2009	Spatial and multi-criteria decision analysis-based methodology for landfill site selection in growing urban regions	Landfill site selection in Trabzon	combination of the analytical hierarchy process (AHP) and GIS
	Wang et al.	2009	Landfill site selection using spatial information technologies and AHP: A case study in Beijing, China	The solid waste landfill site in Beijing, China	combination of the analytical hierarchy process (AHP) and GIS
	Sener et al.	2010	Combining AHP with GIS for landfill site selection: A case study in the Lake Beysehir catchment area (Konya, Turkey)	A landfill site for the Lake Beyşehir catchment area, Konya, Turkey	combination of the analytical hierarchy process (AHP) and GIS
	Sener et al.	2011	Solid waste disposal site selection with GIS and AHP methodology: a case study in Senirkent-Uluborlu (Isparta) Basin, Turkey	Solid waste disposal site selection, Senirkent–Uluborlu Basin, Isparta, Turkey	combination of the analytical hierarchy process (AHP), GIS and remote sensing methods

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Table 8 (cont.)

	Author(s)	Year	Name of the Study	Case Area	Site Selection Methods
Studies proposing other methods	Zeiss and Atwater	1993	A Case-Study of Nuisance Impact Screening for Municipal Waste Landfill Planning	The landfills in Western Canada, Washington and Oregon	simple screening models
	Chau	2005	Combining GIS with fuzzy multicriteria decision-making for landfill siting in a fast-growing urban region	A landfill site in Hong Kong	a prototype expert system using ANN (artificial neural network) and GIS
	Al-Jarrah and Abu-Qdais	2006	Municipal solid waste landfill siting using intelligent system	Al Ghabawi landfill site in Amman Jordan	an intelligent system based on fuzzy inference
	Geneletti	2010	Combining stakeholder analysis and spatial multicriteria evaluation to select and rank inert landfill sites	An inert landfill in the Sarca's Plain, located in southwestern Trentino, an alpine region in northern Italy	combination of stakeholder analysis and spatial multicriteria evaluation (SMCE)
	Huitema	2003	Hazardous Decisions Hazardous Waste Siting in the UK, The Netherlands and Canada. Institutions and Discourses	Nine hazardous waste facilities in the Netherlands, Canada and in the UK	community-based approach

The studies in this group proposed site selection methods including multi-criteria analysis methods such as analytical hierarchy process (AHP) and analytic network process (ANP), combination of the multi-criteria analysis and geographic information systems (GIS), and other methods such as simple screening models, a prototype expert system using ANN (artificial neural network) and GIS, an intelligent system based on fuzzy inference, and combination of stakeholder analysis and spatial multi-criteria evaluation. While some of them indicate locations for their cases, some others determined criteria and proposed methods. Although they do not focus on conflicts about LULUs, they suggest technical proposals which may minimize conflict reasons depending on considering technical criteria. This thesis makes use of these studies to develop recommendations for a smooth process of which conflicts are prevented at the beginning. The use of these site selection methods would be advisable for decision making practitioners facing conflicts in siting LULUs. The point here is to be transparent in criteria and their weights used in analyses to gain trust from wider public.

As well as these quantitative methods, community based approach (Huitema, 2003) and communicative approach (Kikuchi and Gerardo, 2009) were also proposed in the case studies. They may be used in solving conflicts about LULUs; however, the

communities should be ready for such a process. These proposals are situation based like the most of the conflict management strategies; therefore decision maker or planner should choose the most suitable approach in each case.

The second group includes 16 studies examining conflicts in the site selection processes of LULUs (Table 9). 11 of these 16 studies used qualitative research design, while five studies used quantitative methods. The techniques used in quantitative analyses were questionnaires, telephone surveys, statistical models and laboratory investigation. The techniques used in qualitative analyses were interviews with interest groups, coding the answers to the questions in interviews, regulatory documentation of newspapers, categorizing comments on public hearings, and content analysis.

Table 9. Previous case studies on conflicts in site selection processes of LULUs

		Author(s)	**Year**	**Name of the Study**	**Case Area**	**Methods/ Techniques**
Studies using quantitative research design	studying one case	Sellers	1993	NIMBY: A Case Study in Conflict Politics	A biomedical incinerator in a small city in North Carolina, USA	A telephone survey using a questionnaire
		Chung, Kim & Rho	2008	Analysis of Local Acceptance of a Radioactive Waste Disposal Facility	A radioactive waste facility in Gyeongju, Korea	A questionnarie and a comparison of two statistical models
		Kaliampakos, Mavrikos & Menegaki	2011	Construction industry and archaeology: a land-use conflict on the island of Andros, Greece	An aggregate quarry and a concrete plant on the island of Andros in Greece	Laboratory investigation
	studying more than one case	Liu	1997	Dynamics and causation of environmental equity, locally unwanted land uses, and neighborhood changes	Nine solid waste facilities (mini-incinerators and landfills) in Houston, USA	Two statistical tests: a two-sample t test and a two-sample Wilcoxon rank-sum test
		Greenberg et al.	2007	The ultimate LULU? Public reaction to new nuclear activities at major weapons sites	Six existing DOE (U.S. Department of Energy) nuclear weapons sites	Telephone survey

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Table 9 (cont.)

		Author(s)	Year	Name of the Study	Case Area	Methods/ Techniques
Studies using qualitative research design	studying one case	Steelman & Carmin	1998	Common property, collective interests, and community opposition to locally unwanted land uses	A limestone mine on Laurel Mountain, West Virginia, USA	Qualitative research by categorizing comments on public hearing
		Guidotti & Abercrombie	2008	Aurum: a case study in the politics of NIMBY	A landfill for the city of Edmonton, Alberta, Canada	Interviews
		Kikuchi & Gerardo	2009	More than a decade of conflict between hazardous waste management and public resistance: A case study of NIMBY syndrome in Souselas (Portugal)	Hazardous waste facility: waste co-incineration in Souselas, Portugal	Qualitative research design
		Göncüoğlu Eser & Luloff	2003	Community Controversy Over a Proposed Limestone Quarry	A proposed limestone quarry in Haines Township, PA, USA	Document analyses, interviews, a drop-off/pick-up survey
	studying more than one case	Ishizaka & Tanaka	2003	Resolving public conflict in site selection process—a risk communication approach	Waste disposal facilities in T city, Okayama Prefecture, Japan	Interviews and a questionnaire
		Courtright, Packard, Hannan, & Brennan	2010	Prisons and Rural Pennsylvania Communities: Exploring the Health of the Relationship and the Possibility of Improvement	Prisons / State correctional institutions in Pennsylvania, USA	Interviews, mail survey and content analysis
		Cass & Walker	2010	Emotion and rationality: The characterisation and evaluation of opposition to renewable energy projects	Renewable energy projects: wind farm developments in the UK	Interviews and coding
		Schaffer Boudet & Ortolano	2010	A Tale of Two Sitings: Contentious Politics in Liquefied Natural Gas Facility Siting in California	Two Liquefied Natural Gas Facilities in California, USA	Using relevant newspaper articles, regulatory documentation, and interviews
		Rogge, Dessein, & Gulinck	2011	Stakeholders perception of attitudes towards major landscape changes held by the public: The case of greenhouse clusters in Flanders	Greenhouse clusters in Flanders, Belgium	Qualitative research design by following grounded theory approach by interviews and coding
		Chiou, Lee & Fung	2011	Negotiated Compensation for NIMBY Facilities: Siting of Incinerators in Taiwan	Incinerators in Taiwan	Interviews and telephone interviews
		Piazza	2011	Locally unwanted land use' movements: the role of left-wing parties and groups in trans-territorial conflicts in Italy	Four LULUs in Italy: a high-speed rail line, a bridge, a military base and a refuse site	press reviews, participant observation and comparison of 4 cases

The analysis method of LULU conflicts proposed in the previous chapter is reviewed to show how the previous case studies contribute this thesis (Figure 4). The first group including case studies on site selection methods contributes to the analysis of processes and methods to avoid from conflicts. The methods such as multi-criteria analysis are used in the recommendation for further planning practices in the case studies of this thesis.

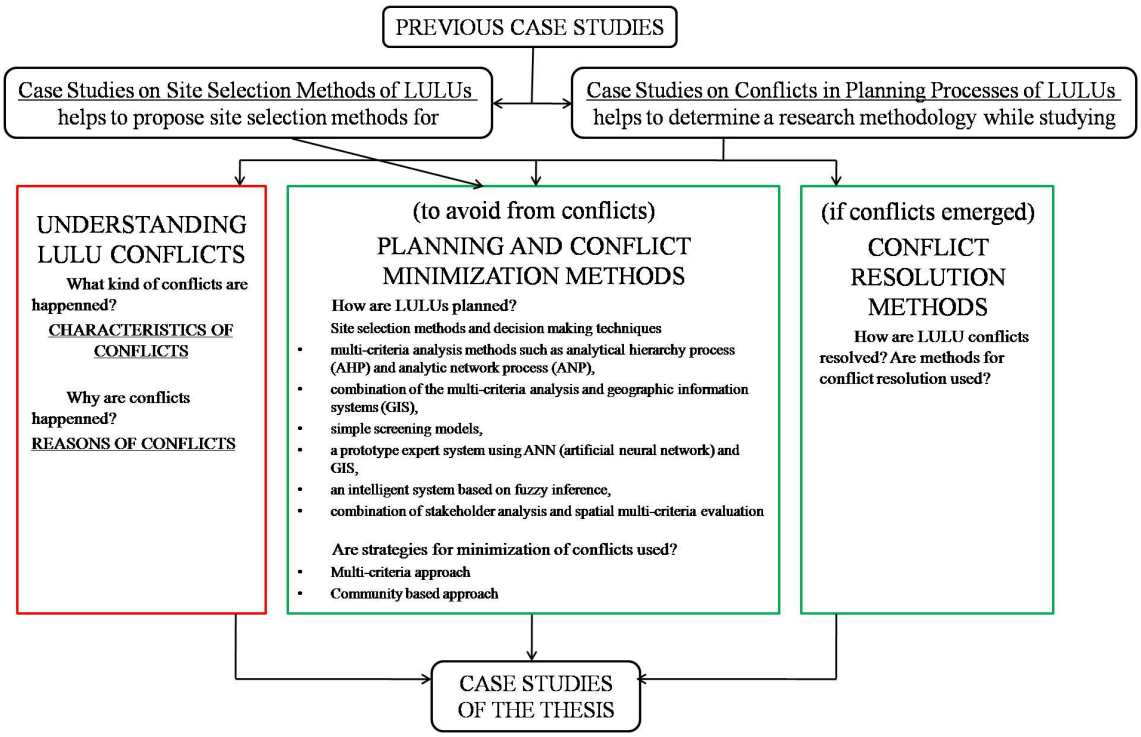

Figure 4. Contributions of previous case studies to the analysis method of LULU conflicts

The second group of case studies mainly focused on conflicts and their resolution methods as shown in Figure 4. They also contribute to the research design and methodologies of the case study of this thesis. They helped to determine the most suitable methodology in similar case studies. The thesis used qualitative research design as in the 2/3 of the previous case studies in this category. Besides, the research included more than one case as in the 7/10 of the studies using qualitative research design in this category. Moreover, the thesis used research techniques including document analysis, media search and content analysis which are not unusual in previous studies. The interview performing previous case studies are examined in detail to utilize their experiences in the interview design of this thesis (Table 10).

Table 10. Previous case studies using interviews

Reference	type of LULUs	# of locations	type of interviews	# of interviews	type of interviewees
Ishizaka & Tanaka, 2003	waste disposal facilities	1	questionnaire and group discussion	55 questionnaires and 12 groups	municipal officers (questionnaire) and opposing groups
Göncüoğlu Eser & Luloff, 2003	limestone quarry	1	questionnaire and standardized, semi-structured, open-ended 1-3 h interviews	294 questionnaires and 18 interviews	households (questionnaire) and key informants (interviews)
Guidotti & Abercrombie, 2008	landfill	1	'flexibly structured' interview by telephone and in person	46	stakeholders
Cass & Walker, 2009	wind farm developments	all in UK	semi-structured interviews selected by snowball sampling method	42	developers, policy-makers and regulators; NGOs and interest groups; politicians; consultants; manufacturers, engineers and designers of different renewable energy technologies and financiers
Courtright, Packard, Hannan, & Brennan, 2010	prisons	4	focus group interviews, semi-structured interviews, mail survey	3100 mails with a 24% response rate	selected local government leaders and representatives from both the business community and other community agencies (focus group interviews), prison management (semi-structured interviews), and community residents (mail survey)
Schaffer Boudet & Ortolano, 2010	liquefied natural gas facilities	2	guided conversation	16 for 1st case and 24 for 2nd case	mayors, City Council members, county supervisors, staff from relevant state agencies, company representatives, reporters, opponents, supporters, and by-standers
Rogge, Dessein, & Gulinck, 2011	greenhouse clusters	all in Flanders	1,5 h open interviews	24	representatives of agricultural sector from horticulturalists to civil servants and representatives of the farmers union
Chiou, Lee & Fung, 2011	incinerators	15	in-depth and structured	60 in-depth and 765 telephone interviews	stakeholders of 15 incinerators and host communities (in-depth interviews), residents living near 9 incinerators (telephone interviews)

The reviewed studies include eight studies using interview. All of them studied one type of LULUs such as solid waste facility, limestone quarry and prison. Three of them studied one case while others examined various amounts of case locations ranging from one to 15. This table guided the thesis in designing interview research in terms of amount and types of interviews and interviewees. Amount of face-to-face interviews varied from 12 to 60 in these studies. There are various types of interviews including structured, semi-structured and open-ended. When the interview type changes to telephone or mail survey, the amount of interviews increased in previous case studies. Interviewees in previous case studies were from a wide range of interest groups including opponents or residents, municipal officers or selected local government leaders, NGOs, company representatives and so on. The thesis methodology is designed similarly with most of these studies in terms of selecting qualitative research design with an acceptable number of structured interviews with similar interviewees.

CHAPTER 4

CASE STUDY: CONFLICTS IN SITE SELECTION PROCESSES OF LULUS IN İZMİR

LULUs in İzmir are selected as case studies of this thesis. First, all LULUs facing conflicts in İzmir are listed by using document analysis and media search. Then, the most conflict facing three types of LULUs are selected: solid waste facilities, fisheries and quarries. Seven solid waste facility cases, six fishery cases and 14 quarry cases are searched in detail to analyze their conflicts by using the analysis method prepared with the help of theoretical works and previous case studies. 60 in-depth interviews with 72 people from all parties are performed to find out their opinions about LULUs and their planning processes. This chapter organized in six parts including general information about LULUs in İzmir, overview of conflicts about three LULUs, evaluation and recommendation.

4.1. LULUs in İzmir

İzmir is the third largest populated city in Turkey (Figure 1). It has a total population of 4.061.074 (TurkStat, 2013). It is located in the western part of the country. It has 30 districts.

There are many different land uses and thus LULUs in İzmir because of its location, size and level of development. There are 35 conflict facing LULU types in İzmir (Table 11). They are listed by using LULU classification in Table 5. The conflict facing LULUs in İzmir include at least one LULU from each group related with energy, waste, industry, transportation, housing, crime and health. Besides, some LULUs facing conflicts in İzmir are not included in Table 5. Examples are watching stations, refugee camp, entertainment facilities with loud music, logistic center and sacrifices spaces.

The most conflict facing three LULU types are selected to be studied in detail in the case studies of the thesis with the reasons explained in method part of the introduction chapter. These LULUs are solid waste facilities, fisheries and quarries.

Table 11. LULUs in İzmir

LULUs		Locations
Energy	nuclear related land uses	Despite no proposals in İzmir, protests against nuclear facilities generally in any location in Turkey
	refineries	Aliağa: Conflicts about responsible institutions not about land use
	mines	Gold mines in Bergama, Efemçukuru (Menderes) and Yamanlar. Quarries in Bornova, Karaburun, Mordoğan, Çeşme, Urla, Kemalpaşa, Menderes, Aliağa
	electricity generating stations	Thermal plant in Aliağa, wind energy plants in Karaburun, hydrothermal plants generally and other renewable energy facilities
	dams	Yortanlı Dam in Allianoi
Waste	hazardous waste related land uses	Aliağa and Gaziemir
	waste related land uses	Solid waste facilities in Harmandalı, Torbalı, Menemen, Bornova-Buca, Menderes, Yamanlar, Ödemiş. Waste transfer stations in several locations. Proposed landfill for sludge of bay in Urla and Foça.
	ash landfill	Aliağa and Foça
	sewage treatment plants	Çiğli: Conflicts about bidding not about land use.
	recycling centers	Aliağa Samurlu Village
Industry	factories	Torbalı, leather factories in Menemen, ready mixed concrete plant in Bornova
Transport-ation	airports	Traffic problems in existing airport in Gaziemir; Airports of Katip Çelebi and Alaçatı
	highways	Kordon, Karaburun, Çeşme, İzmir-İstanbul Highway
	transportation related facilities	Konak tunnel, railways without level crossings, projects of Üçkuyular Çiğli Egeray, İnciraltı-Bostanlı tunnel, Balıklıova canal.
Housing	low income housing	Many low income housing locations
	housing of minorities	Ege District
	gecekondu	Many gecekondu locations
	housing (not exactly LULU)	Housing near industrial zones in Menemen, high density housing in Mavişehir and Selçuk, housing in conservation zone in Buca
Crime	prisons	Yeni Şekran
Health	rehabilitation clinics	Özbek Village in Urla
Non-Grouped	red-light districts	Not a district, but a brothel; an alternative to Yenişehir
	military installations	NATO
	potentially noxious facilities	Depots of gas tubes in Buca and fuel stations in several locations.
	communication towers	Several locations such as Bayraklı and Karşıyaka
	watching stations	Güzelbahçe and Bayraklı
	refugee camp	Harmandalı
	entertainment facilities	Çeşme and Karşıyaka
	sacrifices spaces	Especially illegal ones
	shopping malls (not exactly LULU)	In public spaces such as Alsancak Stadium, Şirinyer Park, lands of Ege and Dokuz Eylül Universities
	fisheries	Urla, Seferihisar, Karaburun, Mordoğan, Çeşme, Foça
	poultry farms	Bademler and Özbek Villages in Urla
	septic tanks	Foça
	canals	Bahçelievler in Karşıyaka
	flood prevention wall	Mavişehir
	logistic center	Ansızca Village in Kemalpaşa

4.2. Conflicts in Site Selection Process of Solid Waste Facilities in İzmir

The conflicts mainly emerged about the existing facility in Harmandalı and proposed areas in Torbalı, Menemen, Gökdere-Kaynaklar, Menderes, Yamanlar and Ödemiş. Before explaining conflict processes, brief information about solid waste facilities in the city is given in the following part.

4.2.1. Solid Waste Facilities in İzmir and Their Site Selection Procedures

Total amount of waste collected in İzmir in 2010 is 1 685 659 tons/year. It is almost seven percent of total waste of Turkey in the same year. Almost 77 percent of the collected wastes are disposed in controlled landfill site while others are disposed in dumping sites of municipalities in İzmir in 2010 (TurkStat, 2010). Composting plants in Uzundere and Menemen have been used for waste disposal until 2006 and 2009, respectively (Akinci et al., 2012).

There are 41 municipal waste landfill sites in Turkey in 2009 (MEF, 2009). Two of them are located in İzmir in Harmandalı and Foça. Foça Solid Waste Landfill Area is constructed in 1999 for Foça, Bağarası, Gerenköy and Yenifoça Municipalities (MEF, 2008).

Harmandalı Solid Waste Landfill Area is constructed in 1992 by İzmir Metropolitan Municipality. It is the first regular waste disposal site in Turkey. It has 90 hectares of area and 27 hectares of the area is still active for landfilling (Figure 5). Almost 4000 tons/day of waste is collected in this area everyday. There are three types of waste collected in this area: domestic waste, industrial waste with domestic characteristics and purification sludge (İWSMGD, 2013) Oozing water from the collected waste is transferred to sewage system and refined in Çiğli Waste Water Refinery. Harmandalı Solid Waste Landfill Area serves all settlements within the boundaries of İzmir Metropolitan Municipality (Özen, 2011). The existing landfill had been collecting medical waste until July 2012; however, they have been sent to Manisa since the new regulation (İMM, 2014).

Figure 5. Active disposal in Harmandalı Solid Waste Landfill Area

It is 25 km. far from city centre. It has run out of its temporal capacity of 15 years (Akinci et al., 2012). Its proximity to built area and its capacity are weaknesses found in SWOT analysis of Strategic Plan of the Metropolitan Municipality (İMM, 2010); therefore İzmir Metropolitan Municipality decided to close the area and prepared rehabilitation plans (Figure 6).

Figure 6. Proposed view of Harmandalı Solid Waste Landfill Area after rehabilitation (Source: İWSMGD, 2013)

The boundaries of İzmir Metropolitan Municipality is enlarged in 2004 due to the Law of Metropolitan Municipalities (No. 5216) and enlarged again in 2012 due to the Law (No. 6360). 24 of the 26 irregular waste disposal sites in new added settlements

are closed and 2 of them are going to be closed after construction of new waste transfer stations (Özen, 2011). The wastes from these settlements are being transferred to Harmandalı Solid Waste Landfill Area. There are transfer stations in Halkapınar, Gediz, Kısık, Gümüldür, Karşıyaka, Selçuk, Torbalı and Foça (Figure 7). In addition, the site selection and project preparation processes are continuing for Türkelli and Urla Transfer Stations (İWSMGD, 2013).

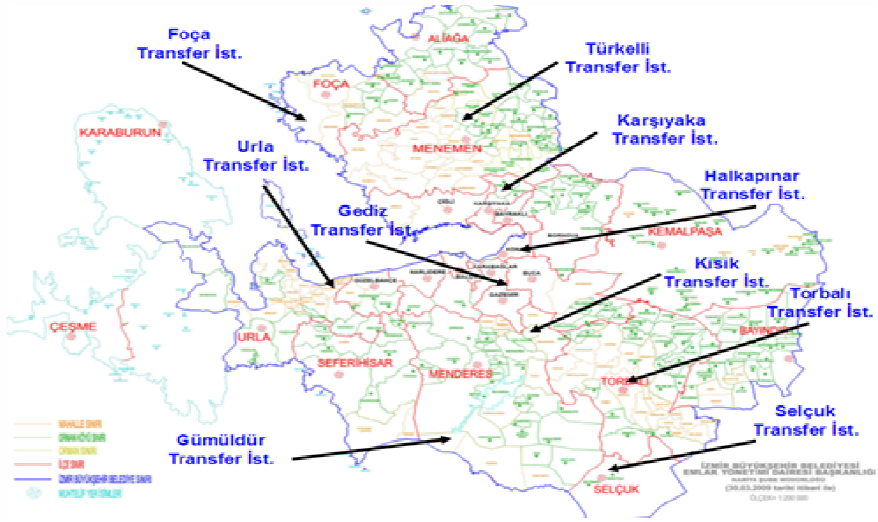

Figure 7. Waste transfer stations in İzmir (Source: İWSMGD, 2013)

The legislation related to the waste disposal sites in Turkey includes fundamental right of living in healthy environments in Turkish Constitution, 6 laws about environment, municipalities, metropolitan municipalities and penal code, almost 15 regulations about waste processes including incineration, disposal, control and so on, almost 21 circulars about waste disposal facilities, implementation projects, management plans, permissions and so on, and other related notifications. While the related laws regulate the general rights and rules, the regulations specify the type of waste such as oil, vehicles, batteries, construction wastes and so on.

The Regulation about Regular Landfilling of Waste determines three kinds of regular landfill facility: 1st class including hazardous wastes, 2nd class including municipal waste and 3rd class including inert waste. It regulates the site selection criteria for them. The minimum distance between 1st class regular landfills and settlements must be at least 1 km while it must be minimum 250 m between 2nd and 3rd class landfills and settlements. Besides, criteria about air transportation routes, conservation zones such as

forests, forestation areas, habitats of wild animals, water resources and their conservation basins, topographic, geologic, geomorphologic, geotechnical and hydro-geological conditions of the area, risks about flood, landslide, snow slide, erosion and earthquake, wind direction, rainfall conditions, natural and cultural heritages are determined. Pipelines of fuel, gas and water and power lines are restricted. First EIA process is completed and then the locations are added to plans according to this regulation (Official Gazette, 2010).

In the site selection process of existing Harmandalı Solid Waste Disposal, related institutions gave opinions. Reports about wind direction which is said to have no effects on nearest settlements was given by Regional Directorate of Meteorology, reports about no relations with groundwater resources was given by State Hydraulic Works and geological reports about having suitable permeability was given by Hacettepe University (Kavaklı, 2011).

At local level, the Department of Solid Waste Facilities in İzmir Metropolitan Municipality is the responsible institution for preparation of plans, projects, adjudication documents and Environmental Impact Assessment (EIA) reports, and control of these processes. Location decisions are taken by this department by considering existing plans with a process shown in Figure 8.

The criteria in the site selection process of waste disposal sites considered by the Planning Department are as follows according to interview with this department:

- Space requirements
- Distance to settlements
- Distance to agricultural lands
- Distance to olive groves
- Land use capability classes
- Distance to industrial zones
- Distance to conservation sites
- Distance to military zones
- Distance to natural lakes
- Distance to dams
- Distance to rivers
- Distance to drinking water wells
- Distance to 1st degree highways

- Distance to 2nd and 3rd degree highways
- Distance to railways
- Slope
- Elevation

Minimum or maximum values are determined depending on existing regulations and legislation for each of these criteria.

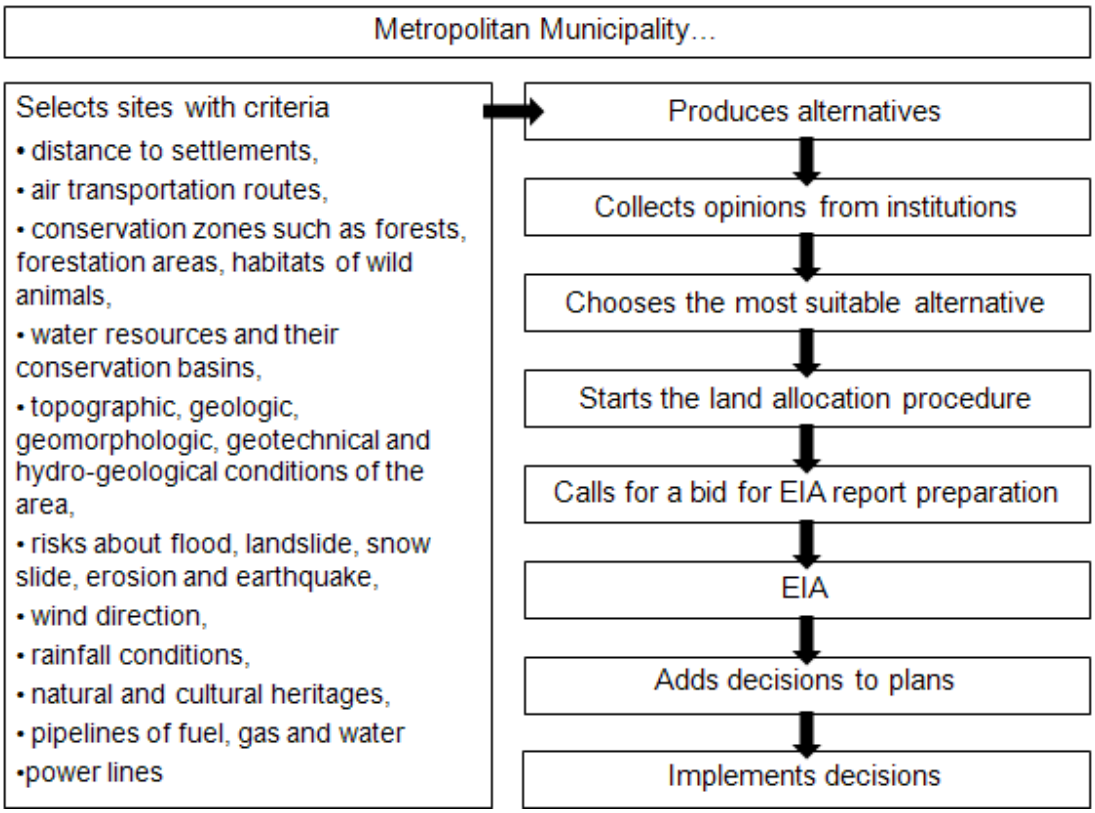

Figure 8. Site selection process of solid waste facilities in İzmir

The processes about transfer stations are not so different; however, there are fewer criterions for site selection. Accessibility and the availability of roads for trucks are the most important criteria. Also, minimum space requirement is specified as 6000-8000m2. First, the Department of Solid Waste Facilities proposes a site for a transfer station considering these criteria. Then, EIA Report is prepared after a bidding process. Documents that state "EIA Report is not needed" is also valid. After the EIA process, geologic situation of the area is analyzed for development and construction; and finally the implementation projects are prepared. The project is sent to the Planning

Department without negotiation. If there are objections to the selected site of the project, alternative locations are searched. For those alternative locations the opinions of several institutions are taken (İMM, 2008).

Upper scale plans in İzmir include decisions about waste disposal sites. 10 waste disposal sites are shown in the Manisa Kütahya İzmir Environment Plan with 1/100 000 scale (Figure 9).This plan proposes strategies to minimize the pollution depending on solid wastes. The main suggestion of the plan is that there should be infrastructure unions in which the solid waste problem is solved for a region including several settlements instead of solving the problem for each settlement. The location criteria should include geographic structures of the land. It should serve the whole city. Regional solutions are needed.

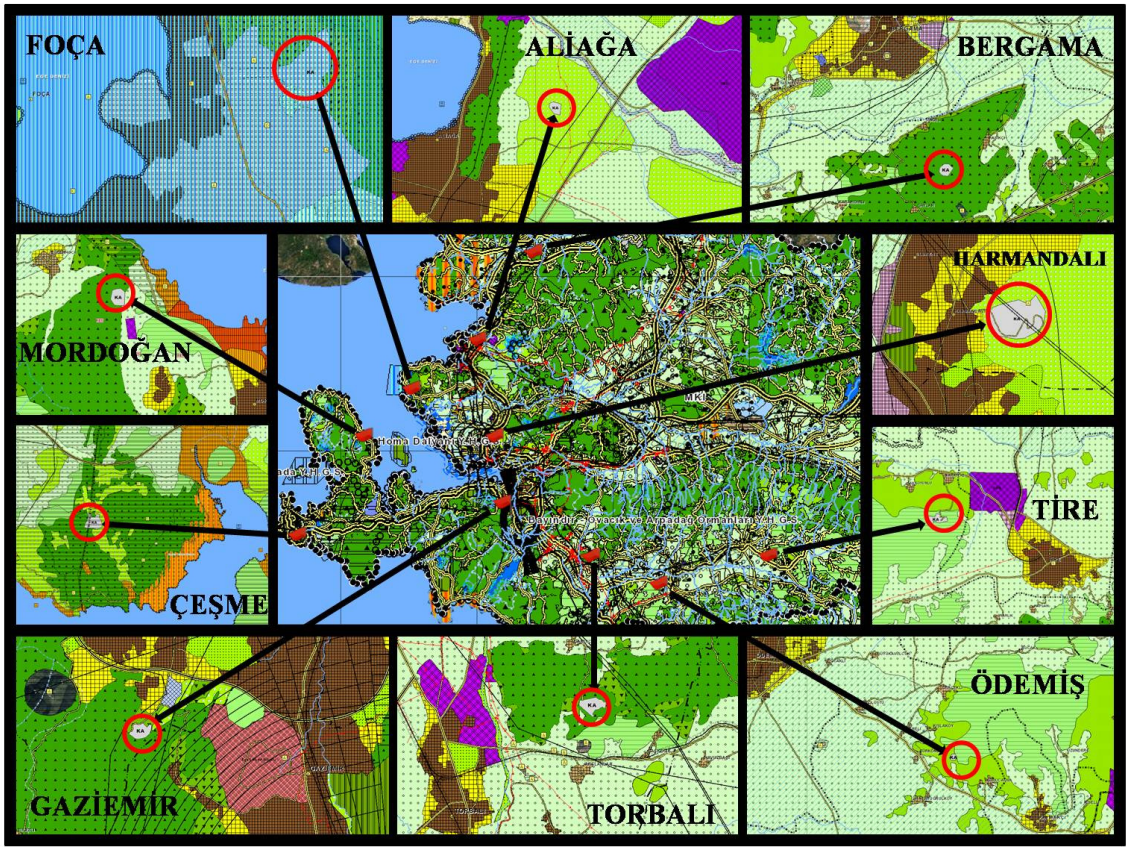

Figure 9. Solid waste facilities in İzmir in Manisa Kütahya İzmir Environment Plan (Source: gisapl1.cevreorman.gov.tr/cdp/)

İzmir Development Plan with 1/25000 scale approved by İzmir Metropolitan Municipality shows five waste disposal site decisions (Figure 10). The plan proposes a total area of 237,2 hectares of solid waste collection and disposal areas. The plan

includes Solid Waste Disposal Areas in Harmandalı (existing 107,1 ha, proposed development 147 ha, conservation zone in a buffer of 1km), Konak Uzundere (8,2 ha and conservation zone in a buffer of 1km), Foça (4,8 ha), Torbalı (43 ha), Mordoğan (5,9 ha), Urla (12,5 ha), Yelki (1,5 ha) and Gümüldür (0,4 ha), Solid Waste Transfer Areas in Buca (6,1 ha), Karşıyaka (5 ha) and Menemen (6,1 ha), Kemalpaşa (4,1 ha), a rubble disposal area in unused area of stone mines in boundaries of forests in Bornova (50 ha), renewal of the irregular waste landfill in Aliağa and transform of it to a regular solid waste landfill area (4,3 ha). The plan includes requirements about solid waste landfill areas. First obligation is EIA. Second, waste collection is not allowed in 1st and 2nd Zone Resource Conservation Areas. Finally, the Environment Law (No. 2872) and related regulations including Solid Waste Control Regulation should be considered in all solid waste facilities.

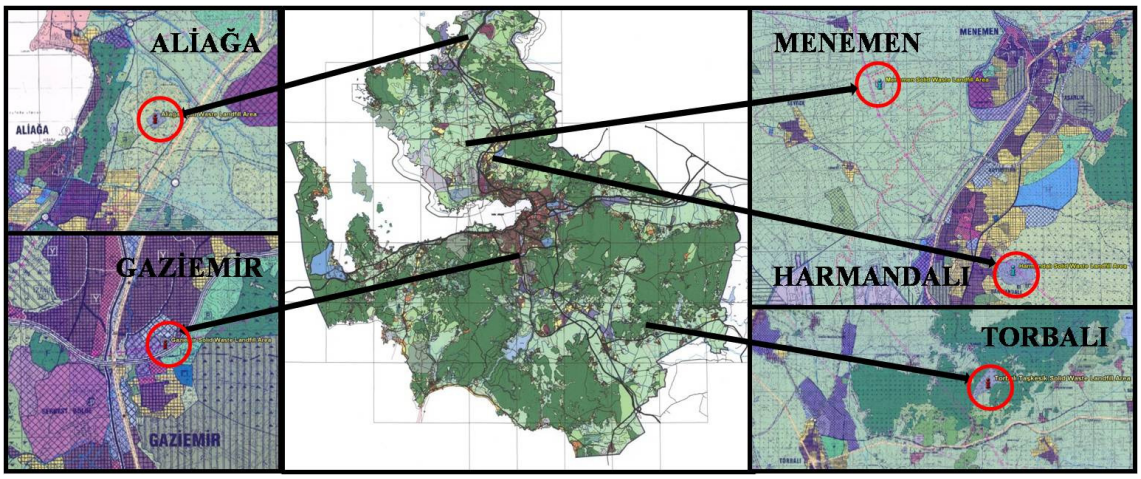

Figure 10. Five solid waste facilities in İzmir Development Plan
(Source: 3D City Map of İzmir Metropolitan Municipality)

4.2.2. An Overview of Conflicts in Site Selection Processes of Solid Waste Facilities in İzmir

The site selection process of solid waste landfill areas in İzmir is facing with conflicts depending on negative opinions of some institutions and objections of nongovernmental organizations and local people. On one hand, the existing facility in Harmandalı is protested to take attention of decision makers for closing the area as soon

as possible. On the other hand, the proposed locations are protested since the first alternative is proposed in 2008 (Figure 11).

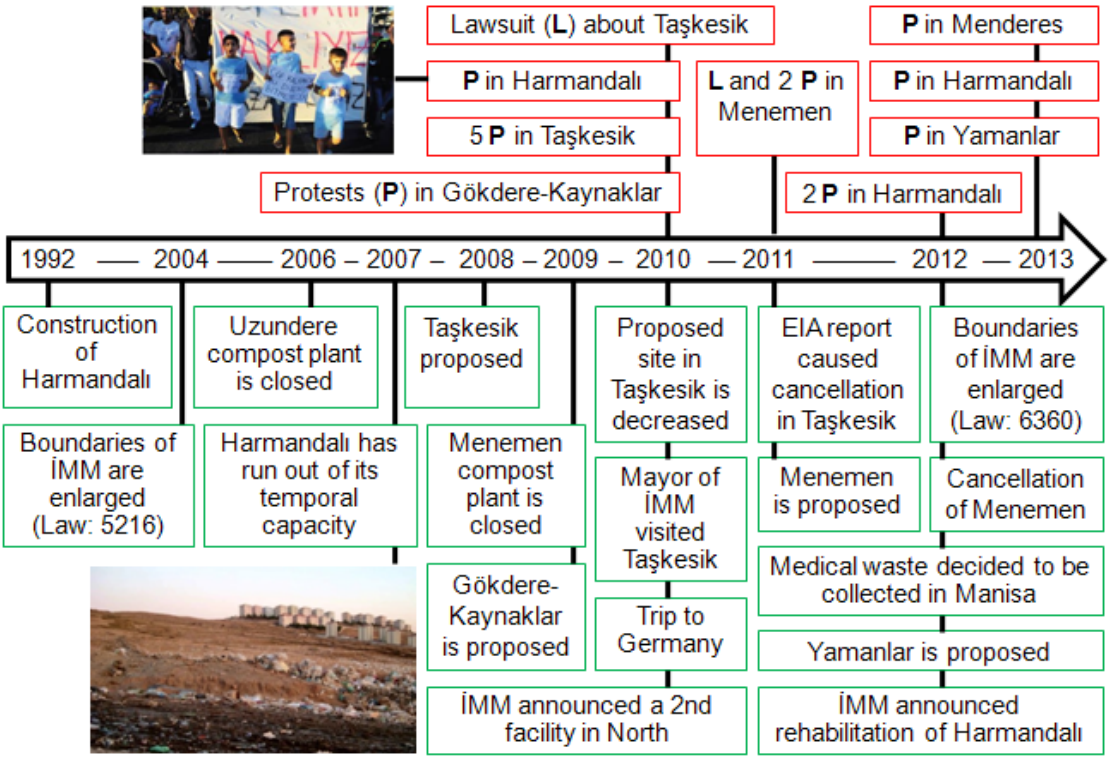

Figure 11. Timeline for solid waste facility conflicts in İzmir

4.2.2.1. Findings of Document Analysis and Media Search for Solid Waste Facility Conflicts

As Harmandalı Solid Waste Landfill Area has completed its capacity and, as the city grows, this facility becomes proximate to the residential areas (Figure 12). İzmir Metropolitan Municipality tries to find a new site for waste disposal since 2005 (İWSMGD, 2013). The Department of Solid Waste Facilities plans to construct a Solid Waste Assessment Facility for effective and efficient assessment of solid waste, separating recyclable waste from others, producing electrical energy from organic waste and composting wastes (Özen, 2011; İWSMGD, 2013).

According to the Action Report of the Department of Solid Waste Facilities (2008), a new regular landfill area is planned in the southern part of the city. First, several alternative areas in Torbalı are proposed. After a series of cancellations for most

of the sites because of objections of several institutions, an area of 168 hectares is selected. The prior authorizations are taken from Forestry General Directorate. The area is approved by Local Environment Committee. Map preparation and then, EIA report preparation and planning processes started. The new solid waste facility is added to the İzmir Development Plan, and then the institution opinions are collected for plans with lower scales (İMM, 2009). The project was planned to be finished until 2010 (İMM, 2008). However the actual process was not same as predicted in the Action Reports.

Figure 12. The proximity of Harmandalı Solid Waste Landfill Area to residential areas (Source: An interviewee from Harmandalı)

In 2009 the mayor of the Metropolitan Municipality announced that they plan to close the existing disposal area in Harmandalı in the following 2 years and to select a site for a new facility. There were two possible lands for an Integrated Solid Waste Facility including collecting wastes, composting or incinerating them and producing energy. First one was in Torbalı and the second one was in between Gökdere village in Bornova and Kaynaklar village in Buca (M, 09.03.2009; YA, 07.10.2009). This announcement started the discussions with several conflicting opinions.

The first responses were from the majors of the municipalities of Buca and Bornova. They did not want the facility in the boundaries of their municipalities. Also, the Minister of Environment and Forestry were opposed to the type of facility. He explained that incineration facility which was planned to be constructed was not appropriate to the existing conditions and budget of the country. Depending on these

objections, Metropolitan Municipality gave up the project in that location (YA, 31.03.2010) and discussions continued on the alternative proposals for Torbalı, Menemen and existing Harmandalı sites.

For the Torbalı proposal an objection came from the Provincial Directorate of Agriculture as 47 hectares of the total 168 hectares of proposed area contained olive graves (Figure 13). This problem was overcome by decreasing the site to 121 hectares (YA, 31.03.2010).

Figure 13. The proposed site for solid waste facility in Taşkesik in Torbalı
(Source: YA, 06.05.2010)

Then many objections came from different individuals but more from local or central authorities, NGOs, representatives of political parties and groups of local people who were usually activated by professional chambers. They showed their protests in municipality councils, through press releases, going to court or collecting signatures by door-to-door visits. The majors of the Chambers in Torbalı including Chamber of Commerce, Chamber of Agriculture, Chamber of Tradesmen, and Chamber of Drivers worked in a union to prepare a report about the problems of Torbalı including the location of solid waste disposal area. They visited the Minister of the State, Vice-Prime Minister and deputies from the three major political parties, and presented that report to them (YA, 04.04.2010).

Beside objections there were few supporters of the proposal. The director of the Provincial Directorate of Environment and Forestry supported the mayor and criticized the people saying "not in my town" that they did not learn the type of facility, its technology or its quality (YA, 05.06.2010; M, 06.06.2010). Also, some newspaper writers reminded that there were several institutions giving positive opinion to this site such as Regional Directorate of Forests, Institute of Mineral Research and Exploration,

Ministry of Environment and Forestry, General Directorate of State Hydraulic Works, Provincial Directorate of Agriculture, Gediz Electricity Distribution Company and other related institutions (M, 06.06.2010; YA, 09.06.2010).

The mayor of the Metropolitan Municipality visited the proposed site in Torbalı and faced with protests (Figure 14). Almost 70 villagers from 3 villages met in the area, stopped the bus of the Metropolitan Municipality, booed, showed banners writing "We do not want İzmir's waste in our region". Some of them showed their land titles to the mayor and said that the area was theirs. Some of them loudly asked the mayor why he did not ask them while making this decision. The mayor tried to explain the process, told that their opinions would be taken in two or three meetings after the EIA report and suggested them to come to the meetings and to tell the reasons of not wanting. The headman of the village told that they gave petitions against the decision but did not get answers. The mayor told that telling opinions was their right, however the decision would be taken depending on science and if there were no legal constraints then they would locate the facility in this area. The villagers shouted him down and then he got angry and left the area (YA, 04.06.2010; M, 05.06.2010).

Figure 14. The protests against the decision of the solid waste facility in Torbalı (Source: left photo YA, 04.06.2010; other photos M, 05.06.2010)

Following these protests Metropolitan Municipality organized a trip to Germany to show good examples to interested people or groups. Some of the interest groups decided not to attend the trip as a response, while some others decided to participate to learn so as to oppose better and consciously. 32 people including some villagers, people from central and local government, representatives of universities, chambers and other nongovernmental organizations attended to the trip and gained positive opinions about constructing the similar in İzmir (YA, 20-23-25.09.2010; M, 23.09.2010). The trip

included technical observation in Münster Mechanic-Biologic Processing and Regular Disposal Facility and Vereinigte Ville Regular Disposal Facility in Cologne (Figure 15).

Figure 15. The participants of the technical trip to Germany
(Source: left photo YA, 25.09.2010; right photo M, 23.09.2010)

The people objected the solid waste facility in Torbalı established a Nongovernmental Initiative Group against Waste in the coordination of Torbalı Chamber of Commerce. The group included participants from political parties, nongovernmental organizations, unions, headmen of villages, and representatives from 25 institutions (Figure 16). They organized meetings and discussed possible movements against waste. They decided to sign a declaration, distribute hand-outs including this declaration, announce by newspaper advertisement, tell the possible harms and bad effects of the facility to the villagers, make a press release in Harmandalı waste disposal area, start legal fight, visit the institutions in the EIA process, organize an exhibition in Torbalı centre including the photos of Harmandalı waste disposal area, stop waste trucks and stay in tents in the proposed waste area (YA, 28-31.10.2010; M, 30.10.2010).

Figure 16. The participants of the Nongovernmental Initiative Group against Waste in Torbalı (Source: YA, 31.10.2010)

While discussions were continuing for Torbalı, in a press release, the mayor of the Metropolitan Municipality announced a proposal for a secondary waste disposal site in the northern part of the city too (YA, 3.11.2010; M, 04.11.2010; H, 04.11.2010).

On the other hand, people living near the existing solid waste landfill area in Harmandalı also started to take actions and organize meetings to force the responsible institutions to find solutions as soon as possible (Figure 17). The headman of the Cumhuriyet Quarter in Harmandalı applied to the Human Rights Committee of İzmir Governorship, Environment Commission of İzmir Bar Association and Provincial Directorate of Health. His applications were based on the 56th sentence of the Constitution which guarantees the right of living in healthy environments for everybody. He complained about the environmental problems and health risks caused by waste disposal, but the authorities from Metropolitan Municipality Water and Sewerage Management General Directorate rejected the claims and told that there was no risk of explosion, no stored gas, no leakage of polluted water (YA, 05.12.2010). The people from Harmandalı explained their decision to go to the European Human Rights Court. The mayor of the Metropolitan Municipality supported this decision and told that they were right (YA, 05.10.2011).

Figure 17. The protests in Harmandalı in 2011
(Source: left photo M, 09.09.2011; right photo M, 13.09.2011)

The news about the movements against the existing condition of the solid waste landfill area in Harmandalı increased the amount of movements in Torbalı (Figure 18) (YA, 06.12.2010). The first legal action of the Nongovernmental Initiative Group against Waste in Torbalı was going to the court with an aim of cancellation of the Manisa-Kütahya-İzmir Environment Plan claiming that the proposal for a waste disposal area in Torbalı was on contrary with the 20th Sentence of the Law about Rehabilitation of Olive Production and Vaccination of Wild Olives (No. 3573) (YA,

28.12.2010; M, 29.12.2010). The group organized a meeting, invited first the Minister of Environment and Forestry, then organized another meeting, invited the Minister of Culture and Tourism and presented reports including their opinions against waste facility in Torbalı. Both of the ministers said that Torbalı is not appropriate for this facility. The mayor of the Metropolitan Municipality told that if any other more appropriate area was possible the Metropolitan Municipality would change the decision (YA, 01-02-03-04.04.2011; YA, 03.08.2011).

Figure 18. The meeting of the participants of the Nongovernmental Initiative Group against Waste in Torbalı Taşkesik (Source: YA, 06.12.2010)

In the following days the EIA report for the area in Torbalı was completed. It was found that the ground was permeable and also there were underground water resources. Therefore, Metropolitan Municipality announced that the area is not suitable for any waste facility (Figure 19). They rejected the possible proposed methods using impermeable membrane in the ground of the facility. They announced that the process of searching another location for the facility is continuing (YA, 27.08.2011; M, 29.08.2011).

Figure 19. Villagers and members of the Nongovernmental Initiative Group against Waste in Torbalı celebrating the cancellation of the waste disposal proposal in Taşkesik (Source: YA, 27.08.2011)

With a majority of votes the Council of the Metropolitan Municipality decided to transform the existing compost waste facility to a new more technological one on an area of 20,3 ha in Menemen. The facility would not be for storing waste but for separating it and producing energy and raw materials for industries (M, 16.10.2011). The mayor of Metropolitan Municipality organized a press release, explained the details of the project and the reasons of the selection of the area. He added that there would be another solid waste disposal area in an unused area of stone mines in the southern part of the city (YA, 05.10.2011; M, 28.10.2011).

The people against the solid waste disposal area in Menemen came together to show their response. The mayor of Menemen Municipality organized a press release and told that the decision was not appropriate to the Development Plan and the Environment Plan. He emphasized that the economic structure of Menemen depending on agriculture would be affected badly with this land use decision (M, 26.10.2011; YA, 28.10.2011). The mayor of the Metropolitan Municipality responded to the oppositions by explaining the reasons of site selection as the area was far from settlements, it was near to highway, using the existing facility and renewing it would be more feasible, and there would be no odor and no stored waste after the process which had a high technological design (YA, 06.11.2011; M, 07.11.2011). However the movements of people from Menemen continued with a meeting of representatives of several chambers, City Council and Profession Organizations Platform of Right and Left Coasts Irrigation Associations (M, 13.11.2011). They protested the decision by showing agricultural products (Figure 20). The head of Left Coast Irrigation Associations told that they went to court to cancel the project (YA, 15.11.2011) to protect the neighboring agricultural lands and water resources (M, 16.11.2011). The protests were supported by the representatives of the political parties, nongovernmental organizations and lots of farmers (M, 17.11.2011). The nongovernmental organizations in Menemen also went to court to cancel the project (M, 08.12.2011).

İzmir Metropolitan Municipality sent the proposal for Menemen to the Provincial Committee of Soil Conservation. The committee investigated the site and reported that the area has high quality agricultural lands depended on the Law about Soil Conservation (No. 5403) (YA, 30.12.2011).

In the following process, Metropolitan Municipality decided to approve for ‘public interest’ decision in the area to the General Directorate of Local Administrations in the Ministry of Internal Affairs (YA, 30.12.2011). If they could not get this decision

for the additional area, the existing area of 6,5 ha would be used (YA, 12.01.2012; M, 13.01.2012). According to the mayor there was no need to take EIA report again, because it had been taken before for the existing facility. On the other hand, according to the head of Left Coast Irrigation Associations, EIA for the existing facility was given in 1995 and it was not valid in 2012; therefore a new EIA process was needed (YA, 16.01.2012). That showed signs that the following process would go on with conflicts.

Figure 20. The protests in Menemen
(Source: M, 17.11.2011)

With the cancellation of Menemen proposal, the people in Harmandalı started protests again. They organized meetings with banners and slogans (Figure 21). They criticized Metropolitan Municipality not to close the existing solid waste area as promised (YA, 06.09.2012; M, 04.09.2012; H, 03.09.2012). Metropolitan Municipality announced their rehabilitation project in Harmandalı (YA, 05.11.2012; M, 06.11.2012); but the local people continued their protests by closing roads to the facility (YA, 13.03.2013).

Figure 21. The protests in Harmandalı in 2012
(Source: left photo M, 04.09.2012; right photo M, 06.09.2012)

Metropolitan Municipality continued searching for alternative locations for new facility. They proposed Yamanlar with reasons of distance to settlements and agricultural lands, suitable topography and geographical location (YA, 29,30.11.2012; H, 01.12.2012). Neighboring municipalities showed their negative responses by telling they did not want the facility in their boundaries (YA, 05.12.2012).

Another alternative proposal was in Menderes located in the south part of the city. First negative response was also from the municipality. The Mayor of Menderes Municipality told that it could not be serious to propose a solid waste facility in a district providing the drinking water of the city (YA, 30.01, 13.02.2013).

The people in Harmandalı again organized protests with almost 500 protestors (Figure 22). They closed İzmir-Çanakkale Highway and made a press release (H, 04.08.2013).

Figure 22. The protests in Harmandalı in 2013
(Source: H, 04.08.2013)

Metropolitan Municipality organized a site trip to the proposed area in Yamanlar with representatives of chambers. They announced that positive opinions from various institutions are taken for this proposal and the EIA process has started (YA, 15.09.2013; H, 16.09.2013). Opponents to the Yamanlar proposal made an investigation report prepared by two universities. The report included statements that the site was not suitable for waste facility (YA, 18,22.09, 01.10.2013; H, 18.09.2013). Metropolitan Municipality also started the process of scientific report preparation for the suitability of the site (YA, 03.10.2013). The recent meeting against solid waste proposal in İzmir took place in Koyundere in Menemen to protest the Yamanlar proposal (YA, 04.10.2013).

4.2.2.2. Interview Findings for Solid Waste Facility Conflicts

Findings of the interviews with 30 of the 72 interviewees are listed below question by question. These interviews included questions asking about site selection process, conflicts and conflict resolution process.

The stage in which the interviewee participates: The answers showed that the interviews include people from various stages of the whole process (Figure 23).

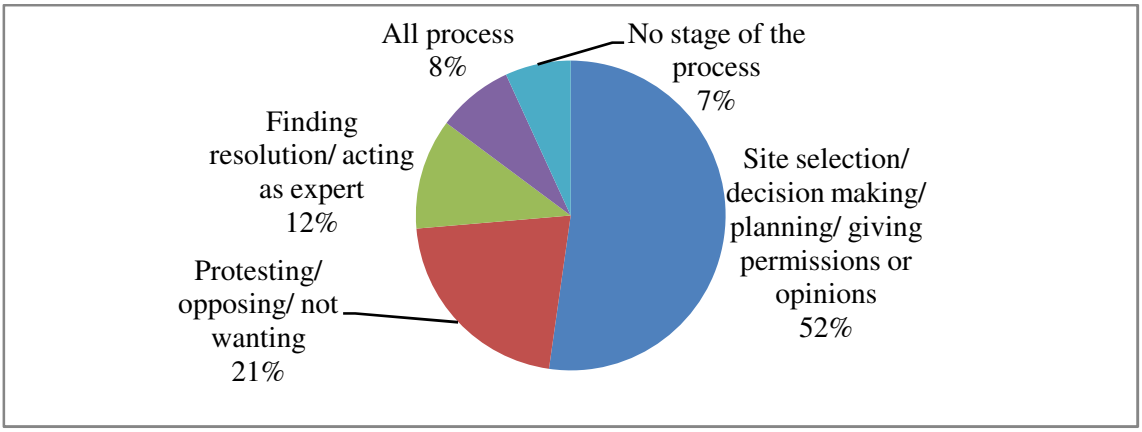

Figure 23. Stages of the process in which the interviewees of solid waste facility case participate

As expected, interviewees from Metropolitan Municipality told that they were in site selection process, decision making process, planning process, whole process or solution process. Surprisingly, two interviewees who participated in the site selection process of Yamanlar case told that they did not take part in the previous cases.

Besides, three of the interviewed planners from Metropolitan Municipality told that they participated in the decision making process but they did not select the site. They told that the site is selected by the Environmental Protection Department.

The interviewees from public institutions said that they participated in the decision making process through ways such as giving permissions and evaluating decisions or their environmental impacts. The only interviewee from public institutions taking part in the protests is the representative of Menemen Left Bank Irrigation Association. Interview answers show that other actor groups taking part in the protests are municipalities, local people and NGOs.

In Menderes, Karşıyaka and Bornova cases the municipalities said that they were against the site selection decisions; however the interviewee from Torbalı Municipality said the municipality did not take part in any processes about solid waste facilities. The interviewees from Bornova, Çiğli and Menderes Municipalities told that they were not included in the decision making process. Moreover Menderes Municipality criticized this with these words: "None of the members of City Council of İzmir Metropolitan Municipality even the environment commission knows the decision. I am also one of these members. We learn this kind of decisions via media."

The headmen told that they took part in the conflict processes. Different from others, a headman told that nobody asked the decisions to local people but he involved himself into the Environmental Impact Assessment process by visiting all related institutions and telling the reasons of being against waste facility in his village.

Two of the interviewed NGOs, İzmir Bar Association and Chamber of Commerce in Torbalı, told they were in the protesting process. Other two NGOs, Chamber of City Planners and Chamber of Environmental Engineers, told they shared their opinions about the solid waste facilities with related institutions.

How the sites are selected by whom: While some interviewees answered to this question with short descriptions, some others explained in detail and opponents criticized the site selection process (Figure 24).

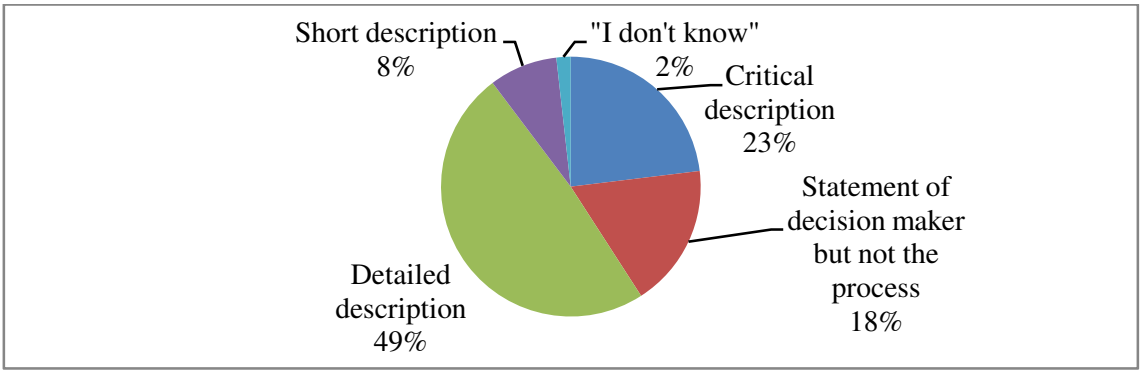

Figure 24. Answers to the question asking how the sites are selected by whom in solid waste facility case

The answers given to this question varied due to the interviewees taking part in the decision making process and not. Whereas the interviewees from Metropolitan Municipality described the decision making process as "a collective decision" of a

commission including experts from various departments using “lots of” technical criteria such as distances to settlements and agricultural lands, traffic density, topographic features, land ownership, geological analysis and pollution risks, the interviewees who were against decisions criticized the site selection process in terms of decision makers, lack of investigation and site selection criteria. For example, the interviewee from Menderes Municipality told that these criteria were not used in the site selection processes of waste facilities in İzmir. He said that “Aziz Kocaoğlu sees the site in his dreams and decides”. Supporting this critique, interviewee from Taşkesik and interviewees from Bornova Municipality told that the decisions were made by Aziz Kocaoğlu and his friends or team. Besides, the interviewee from Chamber of City Planners criticized the lack of planning criteria used in the site selection process as they were only engineering and technological criteria and investigation. Engineering investigation in the decision making process was also underlined by the interviewee from university who also told that the decisions were given by engineers. The critique from the representative of Menemen Left Bank Irrigation Association was an interesting one that the proposed site of waste facility in Menemen was decided by looking at Google and that is why the decision makers thought there was a road but in fact it was a canal.

Another critique was about the lack of information about the decision making process. Interviewees from Taşkesik and Koyundere, Municipalities of Karşıyaka and Bornova and representative of Chamber of City Planners criticized not being informed about how the sites were selected. They learned the decisions via media and thought that the decisions should have been shared with them, but the Metropolitan Municipality kept both the decisions and their decision making processes as secrets according to these interviewees.

On the other hand, not all the municipalities were criticizing the decision making process, but the representatives of Torbalı and Çiğli Municipalities were neutral in describing the site selection process. They told that the Metropolitan Municipality was responsible for the decisions but they did not give decisions themselves, because they take opinions of several institutions and also Ministry of Environment was included in the process of geologic analysis and Environmental Impact Assessment.

The interview research found that there were changes in the actors or experts in site selection process of solid waste facilities. The managers having troubles in the processes of former cases were changed in the latter processes of current case. And also,

new working groups were appointed after facing conflicts. This showed the possibility of lack of taking advantages of previous experiments in Metropolitan Municipality.

The answers to this question also varied due to cases within the boundaries of Metropolitan Municipality and out of the boundaries as the decision making process differs. The only waste disposal case out of the Metropolitan Municipality, Ödemiş, is told to be decided by municipality and offered to the Special Provincial Directorate. An interviewee from this public institution told that the sites of waste disposals are selected by people lacking knowledge about planning developments with the only criteria of finding lands easily to be allocated due to their ownership.

Whether the site selection was right: The answers included opposing views. 49 percent of them said the site selection decision was wrong, whereas only four percent of the interviewees agreed that the decision was right (Figure 25). These four percent were from Metropolitan Municipality who answered this question for Menderes and Yamanlar.

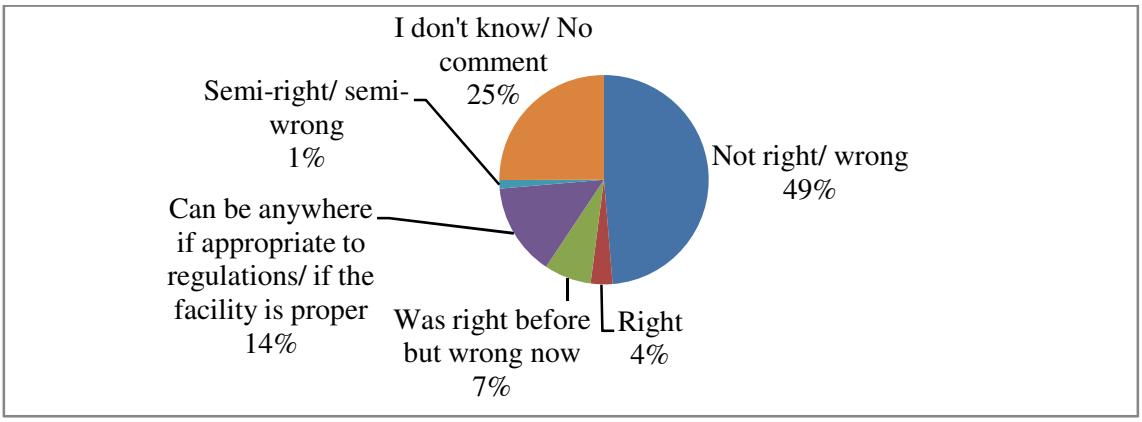

Figure 25. Perceptions of interviewees on rightness of the site selection in solid waste facility case

On the other hand, the interviewees who found the decision wrong were from various parties; two interviewees from Metropolitan Municipality, three from public institutions, three municipalities, two NGOs and four headmen. Whereas Provincial Directorate of Environment and Urbanism and İzmir Bar Association gave common answers for decisions in all cases, the other interviewees found decisions for specific cases wrong. In all seven cases there were at least two parties giving negative answer. The Metropolitan Municipality representatives finding the decisions wrong gave this answer for Menemen and Torbalı. Their reasons were agricultural lands in Menemen

(Figure 26) and geological structure in Torbalı. The reason for Menemen was same for the interviewee from Menemen Left Bank Irrigation Association.

Figure 26. The proximity of solid waste facility to agricultural lands
(Source: An interviewee from Menemen)

On the other hand in Torbalı case, the interviewees listed additional reasons to find the decision wrong. These reasons were wind direction, underground water resources and agricultural production. In Bornova, Menderes and Yamanlar cases, interviewees from municipalities and headmen said that the site selection was wrong. Interestingly, the interviewee from Menderes Municipality described the site selection decision as a "joke" because of lacking scientific data. The answers to this question for Harmandalı case differed from other cases. The interviewees from Metropolitan Municipality, university and local people agreed that the site of the waste facility in this case was right before -in its decision making period- but wrong now. They criticized the residential development decisions in plans despite their proximity to solid waste disposal in Harmandalı.

Four interviewed parties rejected to say right or wrong. One of them was Chamber of City Planners whose answer emphasized the lack of knowledge infrastructure in planning profession to evaluate this subject. He chose the adjective "bad" for the decisions instead of "wrong". Another party having no comments to this question was Metropolitan Municipality. In that interview, the expert from Environmental Control Department told that the rightness of the decisions could only be commented after EIA process. Another interviewee from Metropolitan Municipality

said he did not know the answer for Yamanlar, because the process has just started. The last party without an exact answer to this question was Çiğli Municipality in which the interviewee was not sure about the rightness of the site in Yamanlar.

The EIA expert in the Provincial Directorate of Environment and Urbanism told that the rightness of the site selection did not matter rather the appropriation of the decision to the regulations did matter. Supporting this view, the interviewee from Torbalı Municipality told that the site was not important and it could be anywhere if the type and quality of the facility was right.

Success of the site selection process: 66 percent of the interviewees told that the process was unsuccessful, whereas 19 percent of the interviewees including Metropolitan Municipality and Torbalı Municipality evaluated the process as successful (Figure 27).

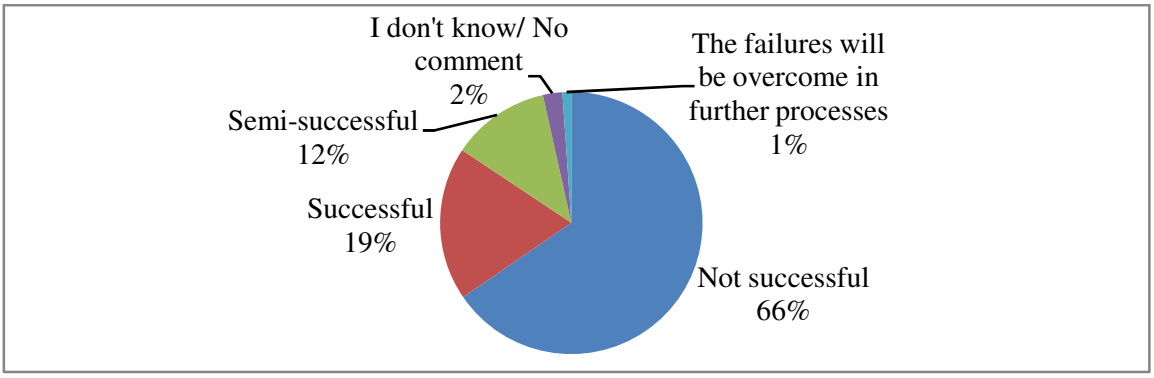

Figure 27. Perceptions of interviewees on success of the site selection process in solid waste facility case

The interviewees who found the process unsuccessful in all cases of waste facilities were Provincial Directorate of Environment and Urbanism and Chamber of Environmental Engineers. Besides, Harmandalı process was found unsuccessful by local people, Chamber of City Planners and university. The interviewer from university said that the new site should be determined previously before the end of the lifetime of Harmandalı and that the decision makers should not work at the last moment.

Menemen process was found unsuccessful by Menemen Left Bank Irrigation Association and Metropolitan Municipality. Torbalı process was found unsuccessful by local people and Chamber of Commerce. Gökdere-Kaynaklar process was found unsuccessful by Bornova and Buca Municipalities and local people. Menderes process

was found unsuccessful by Menderes Municipality and local people in Çakaltepe. Menderes Municipality criticized the process with these words: "If they (*proposed sites*) are determined with right procedure and method, the science will not change with political will. If they are changed with political will, the site selection process must be decided with an unscientific method. This contains enough shame."

The headmen finding the processes unsuccessful told that the opinions of villagers should be taken in the decision making process. One of them told his disappointment as: "Adequate investigation was not done. Wrong people were appointed. The village has poor people. They (*decision makers*) thought they (*villagers*) could not oppose. They did not regard us as humans. It hurt our honor."

Two interviews pointed out both successful and unsuccessful sides of the process. One of them was the interview with Provincial Directorate of Environment and Urbanism. The interviewee told that there were weak sides, but it had a successful public participation in EIA process. The interviewee from Metropolitan Municipality told that the process was successful in terms of engineering criteria but unsuccessful in terms of responses and results. He also added that the reasons of the responses were not wrong decisions and there would be protests in any locations in west of the country. He said that "there is no waste facility accepted by the whole community".

Municipalities expressed several points to this question. Karşıyaka Municipality criticized the lack of knowledge about the site selection process. The interviewee said that he could not say if it was successful or not because he did not know about it and the municipalities were not informed about the process by the Metropolitan Municipality. In a hopeful point of view, Çiğli Municipality told that the decision makers would get lessons from the previous unsuccessful site selection processes and they would improve the current process in Yamanlar.

The opinions of interviews participating in decision making process varies in terms of the rightness of the land use location and the success of the decision making process. An interviewee from decision making process in Metropolitan Municipality hesitated to answer these questions and said that "I can not commend". She also did not tell the final decision about the location of waste facility. Other three interviews participating in decision making process gave three different answers for three different cases. One said the location was not right and the process was not successful in Menemen. Second one stated that the location was partly right and the process was successful in Taşkesik. Third one told that the location was right and the process was

successful in Menderes. In addition to these various points of views in Metropolitan Municipality, the interviewee taking part in the site selection process of a solid waste disposal out of the metropolitan boundaries in Ödemiş also found the location wrong and the process unsuccessful. These opinions show that the people who find the decisions wrong and unsuccessful are not only from opponents but also from people taking part in decision making process.

Opponents/ Proponents: The common answer of all interviewed parties in all cases to the opponents (46%) was "local people/ villagers/ people living nearby" (Figure 28). Another popular answer was NGOs for all cases (2%). Other answers varied due to cases. Irrigation Associations were said to be against the site selection in Menemen. In Harmandalı case, municipalities and political actors were said to be opponents. In addition, two interviewees from Metropolitan Municipality said everybody was against the waste facility in Harmandalı. Similarly, in Gökdere-Kaynaklar case, municipality and local people said everybody was opponent to the proposed site.

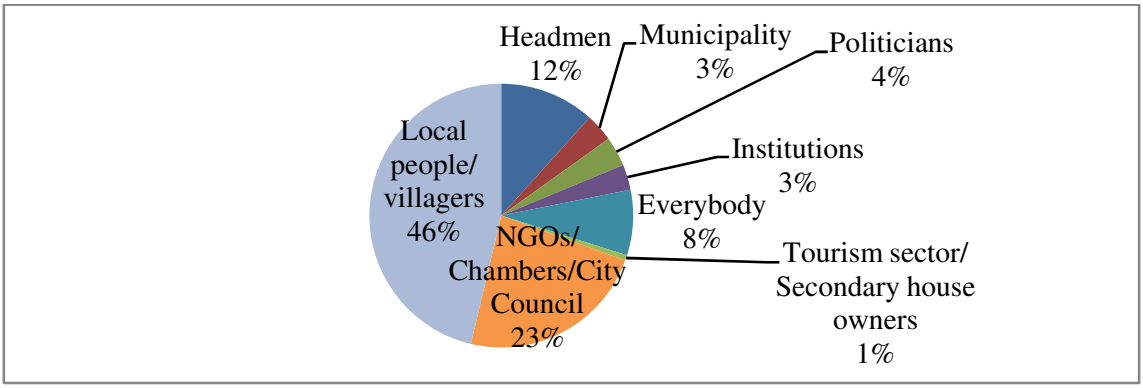

Figure 28. Opponents in solid waste facility case

Political actors were also listed as protesters in Torbalı and Yamanlar cases. The interviewee from the Chamber of Commerce in Torbalı told that the protesters were from all political parties and he criticized the Mayor of Torbalı Municipality not to be against the waste decision. In Yamanlar case, the Metropolitan Municipality said that only the municipality was against the decision, on the other hand the municipality said that all Karşıyaka was against the decision. In this point, the dates of interviews affected the results. Metropolitan Municipality was interviewed in April when the process was at

the beginning; however, the municipality was interviewed in November when the movements from local people started.

The **organization level of the opponents** were described in all cases as "organized" by İzmir Bar Association and as "sometimes organized sometimes not organized" by the Provincial Directorate of Environment and Urbanism. Metropolitan Municipality told that the protesters were "individual and semi-organized" in Torbalı. Headman and Torbalı Municipality agreed that the local people were not organized at the beginning of the protests but then Chamber of Commerce organized them.

There were two types of answers about the **locality of the protests**. The answer of İzmir Bar Association showed that the protests were local in all cases. Also in Torbalı case, Chamber of Commerce and Metropolitan Municipality told that they were local. On the other hand, an interviewee from opponent groups stated that the protests were local at the beginning but then expanded and included people from Torbalı, Selçuk and İzmir. Also in Menemen and Yamanlar cases, the protesters were both from local people and from outside according to the interviews.

The interviewees listed **proponents** of the site selection decisions for waste disposal sites (Figure 29) as Metropolitan Municipality in all cases in their boundaries (55%), municipalities in Torbalı and Ödemiş cases, and "some headmen with political concerns" in Torbalı case. The answer that "nobody supported the decision" was given by interviewees from Kaynaklar Village and Menderes Municipality. The interviewee from Menderes Municipality said that: "I did not hear any supporting sentence from any mentally healthy people".

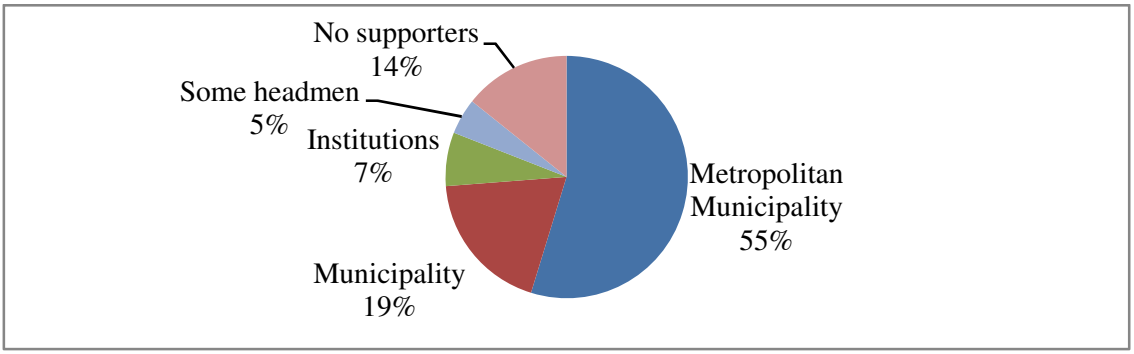

Figure 29. Proponents in solid waste facility case

Amount of people in the conflict process: This question was left unanswered or said to be unknown by 50 percent of the interviewees (Figure 30). The interviewees talking about all cases such as İzmir Bar Association and the Provincial Directorate of Environment and Urbanism told that the amount changes due to cases; however, there was a rich variety in the answers from other interviewees related with Harmandalı, Yamanlar and Torbalı even in the same case. In Harmandalı case, an opponent interviewee said that the movements included 100 people whereas the Metropolitan Municipality said that the protesters included the whole settlement.

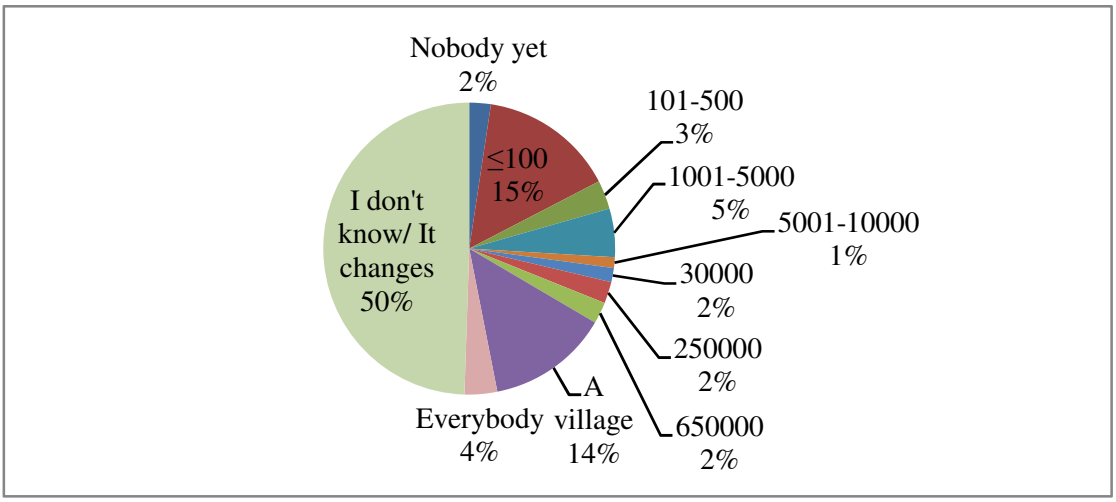

Figure 30. Amount of opponents in solid waste facility case

Similar variety in answers was seen in Yamanlar case in which three interviews recorded different amounts. Headman told there were 150 people in the meeting and the total amount of opponents were 10.000 whereas Karşıyaka Municipality told that the amount of opponents were between 600.000 and 700.000 including residents of Karşıyaka, Çiğli and Bayraklı. Apart from them, Metropolitan Municipality said that the amount of opponents to Yamanlar decision was few because the proposed area was far from settlements.

There were also three different interpretations to this question in Torbalı case. The Metropolitan Municipality said that there were about 100-200 protesters. Headman told that the amount of protesters were 300-500 at the beginning and increased to "an amount that can not be counted". The interviewee from Chamber of Commerce told that

there were first 38 protesters as organizers but they were supported by 30.000 people then.

In other cases there were no big differences between answers of different parties. In Menemen and Menderes, interviewees told all people were protesting. In Gökdere-Kaynaklar case, a headman said there were 2000 protesters and Bornova Municipality said there were thousands of them.

Reasons of being opponents: 39 various reasons were listed about waste disposal sites. The common reasons listed for all cases were environmental problems (28%), odor (11%), health effects (10%), agricultural loss (7%), decrease in life quality (7%), noise (7%), economic loss in real estate values (6%) and pollution (5%) (Figure 31). Other popular reasons listed in more than one cases were the proximity of the facility to settlements and damage to water resources, mosquitoes, dust, damage to flora fauna balance and disturb the quietness.

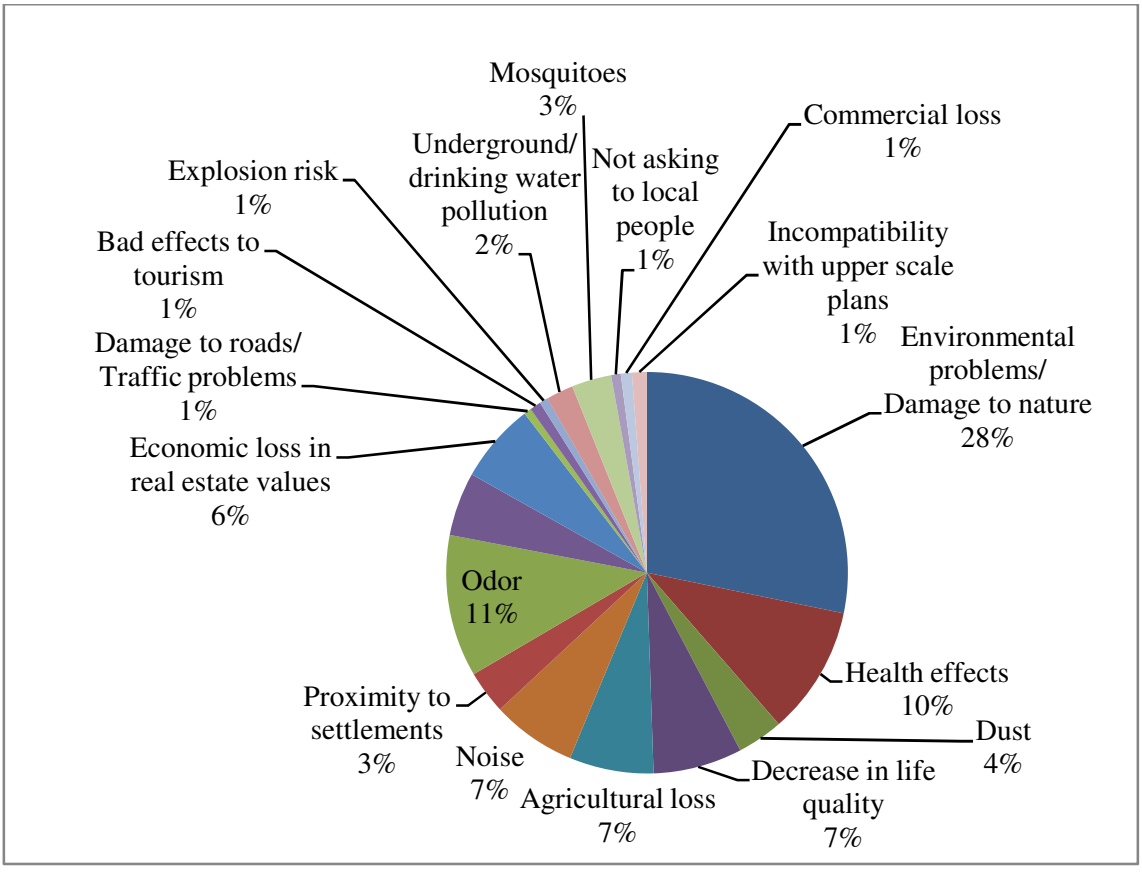

Figure 31. Reasons of being opponents in solid waste facility cases

In Harmandalı case, the other reasons were explosion risk, poured waste from waste transfer vehicles, seagulls, irregular storage of ship breaking waste and medical waste, visual pollution and the wish to "live in a healthy environment as promised in the constitution". In addition to common reasons, the opposition to a waste facility in Torbalı was because of the possibility of polluted water to leak in underground water, decrease in land and real estate values, proximity to settlements, air pollution and economic loss in commercial sector. Interviews about Menderes case had also additional reasons about underground water, land devaluation and economic loss. Besides, visual pollution and bad effects to tourism were added by the Menderes Municipality. Effects to tourism were also a protest reason in Gökdere-Kaynaklar. In this case, other reasons emphasized in interviews were olive groves, wind and sun directions and pollution possibility in roads where trucks would transfer waste. In Yamanlar case, additional reasons were proximity to settlements, forest land, afforestration decision in the plans, incompatibility with upper scale plans, conservation site decisions, visual pollution, land devaluation, pollution of drinking water, traffic problem, effects to region and proximity to public sports area and youth center.

Underlying reasons to be opponents: Main answers to this question include political factors (18%), lack of knowledge (17%), existing bad examples (17%), lack of trust (14%) and media (10%) (Figure 32).

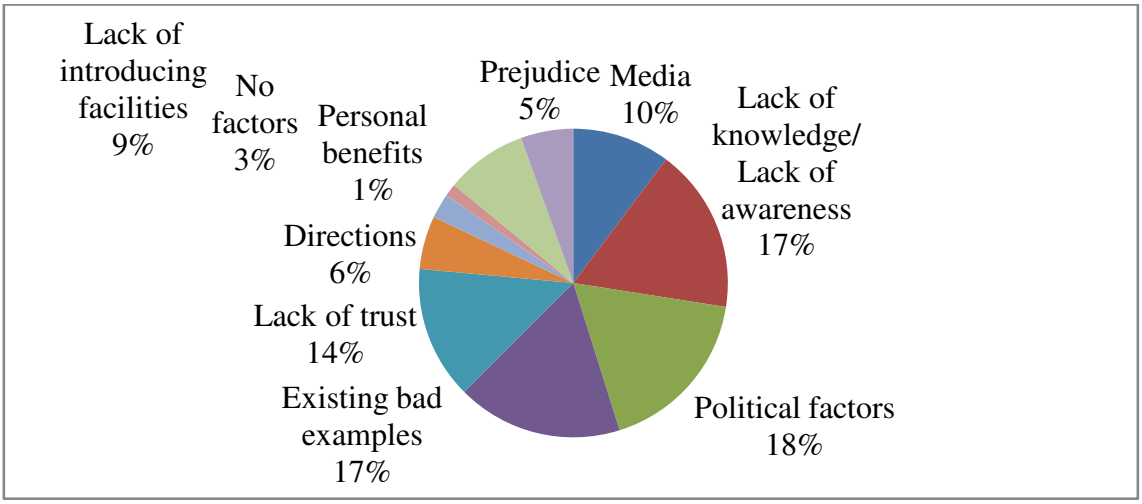

Figure 32. Underlying reasons of being opponents in solid waste facility cases

At least one interviewee of all interviewed interest groups gave the answer of "lack of trust to decision makers". Provincial Directorate of Environment and Urbanism, Metropolitan Municipality and Chamber of Environmental Engineers related this distrust with the bad conditions of the existing waste disposal site.

"Political reasons" were also listed as underlying reasons of protests in the interviews with various interest groups except headmen. On the contrary, headmen argued that there were no political reasons and the protesters were from various political parties. Even in some cases headmen told that there were no underlying reasons and the only reason was protecting their village or district.

In Torbalı case, political concerns are regarded as reasons of not protesting by Chamber of Commerce in Torbalı. Political reasons are seen as a reason of both protesting and not protesting according to Menemen Left Bank Irrigation Association and Karşıyaka Municipality. Karşıyaka Municipality emphasized the possibility of the inclusion of other powerful political actors to the process for finishing conflicts:

> Maybe, the central office (*of the political party*) will say 'stop this dispute' and the issue will finish. It may not be done. Another location may be searched. We can not guess what happens in politics. Otherwise, Metropolitan Municipality is insisting. Karşıyaka Municipality is opposing. Compromise will happen only if there is a political thing (*intervention*).

Another popular underlying reason of protesting was said to be lack of knowledge. Metropolitan Municipality, Chamber of Environmental Engineers, Menemen Left Bank Irrigation Association and Çiğli Municipality pointed out this reason. They told that people were against the proposed decisions because they did not know the technology of the proposed facility. Metropolitan Municipality explained this point that protesters in Torbalı supposed that there would be serious environmental problems. There was a prejudice about all proposed solid waste sites according to another interviewee from Metropolitan Municipality. The related underlying reason was told to be lack of information and advertisement about the new technology to be used in the proposed facility.

According to interviews about Harmandalı, Menemen, Torbalı, Gökdere-Kaynaklar and Yamanlar, media was another reason for protesting. An interviewee from Metropolitan Municipality told that the news about existing waste disposal in Harmandalı increased protests in Torbalı.

Instead of listing reasons, the interviewees from Environmental Impact Assessment Department of Provincial Directorate of Environment and Urbanism told that they did not concern underlying reasons but legal justifications. They said that "We do not concern with them (*underlying reasons*). If the objection has a legal justification, it will be evaluated. The important is the regulations. We look at them. If you explain the objection scientifically, it will be considered in this process."

Whether the site selected or its decision making process was the reason of opposing: Both of them are reasons according to 58 percent of the interviewees (Figure 33).

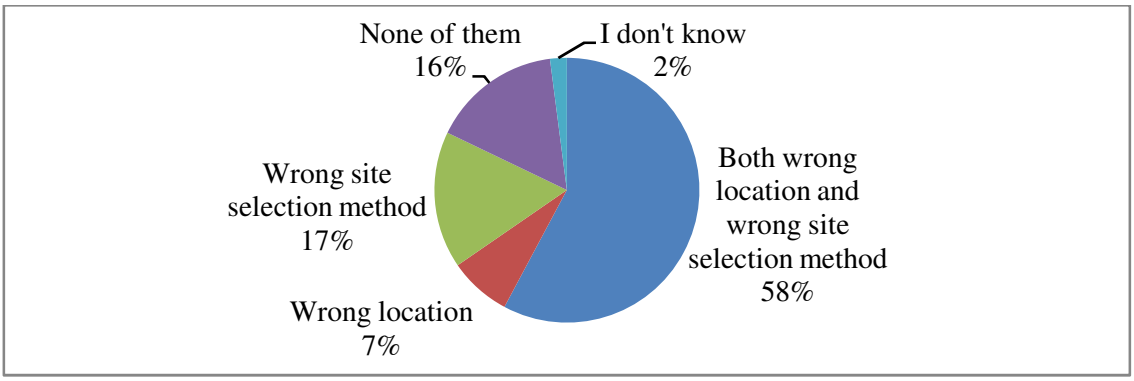

Figure 33. Whether the site selected or its decision making process was the reason of opposing in solid waste facility case

The selection of wrong site was the reason of protests according to Karşıyaka Municipality for Yamanlar case, university for Harmandalı case, local interviewee for Çakaltepe case and İzmir Bar Association for all cases in İzmir. The deficiencies in site selection process was seen as the main reason of opposition in Yamanlar and Harmandalı cases by Çiğli Municipality, Chamber of City Planners and local interviewee from Koyundere. Both of them were listed as reasons of protesting in the interviews with Special Provincial Directorate, Provincial Directorate of Environment and Urbanism, Menemen Left Bank Irrigation Association, municipalities of Menderes and Bornova, local interviewees from Kaynaklar and Taşkesik and Chamber of Commerce in Torbalı. On the contrary, three interviewees from Metropolitan Municipality told that the reason was neither the wrong site nor the wrong process. One of them supported this with an argument that there would be protests despite the right site with right process because of other reasons such as political interests and prejudice.

All the 11 interviews from opposing groups found the waste site locations wrong and the site selection process unsuccessful; however, when the reason of opposing was asked 6 of them told that the reason was both the wrong location and the unsuccessful process, 4 of them stated that wrong locations were reasons of oppositions and one of them told that the reason was the process and distrust. According to the interviewee from Chamber of City Planners, the site selection did not matter for Metropolitan Municipality:

> … Indeed, the Metropolitan Municipality does not evaluate the site selection. In a meeting I joined, I asked the site selection work twice; however it was not answered. But the Mayor of the Metropolitan Municipality told that the mechanical biological purification facility, which they saw in Germany, could be established to even in city center if wanted. So it is said that the technology of the facility makes site selection meaningless. It is said that the facility will not harm to environment wherever you wanted to establish…

Interview with Torbalı Municipality showed that they shared this view with Metropolitan Municipality: "In this century, it is meaningless to say I do not want this waste. If the facility is as required, it can be everywhere. Torbalı opposes, it (*waste facility*) goes to another place, they will also oppose, what will happen?".

Reasons of not opposing: Answers to this question include positive approaches such as personal economic gains (12%) and trust to decision makers (5%) and negative approaches such as lack of knowledge (15%) and fear (9%) (Figure 34).

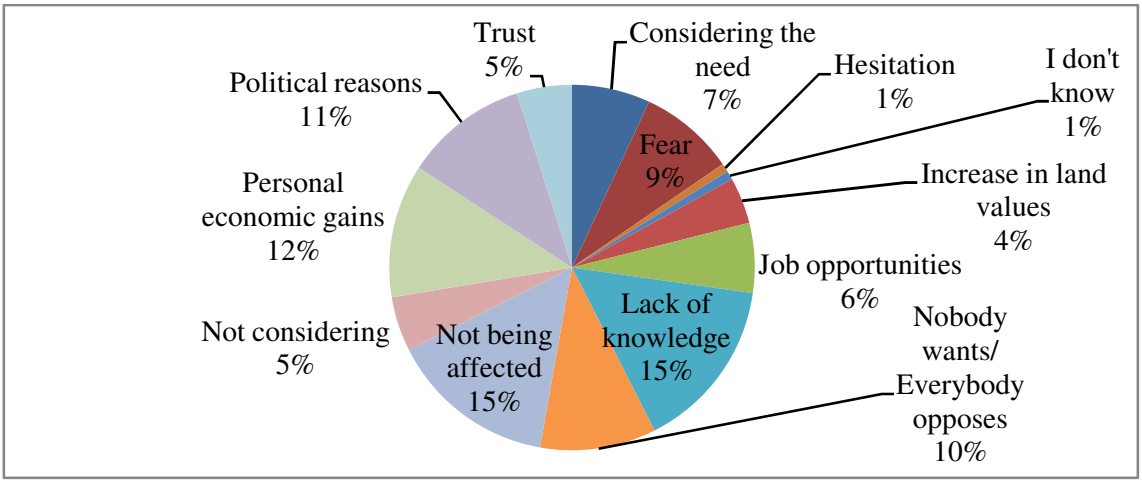

Figure 34. Reasons of not opposing in solid waste facility case

Special Provincial Directorate, Metropolitan Municipality and Chamber of Commerce in Torbalı told that the people who did not oppose to the decisions might not know about the decisions. Furthermore, there were interviewees claimed that all people were against decisions and there was nobody wanting the land use. This claim was voiced by İzmir Bar Association for all cases, Metropolitan Municipality for Torbalı case, Menderes Municipality and three headmen.

Most of the positive reasons of not opposing were expressed by Metropolitan Municipality. These were trust to decision makers, feeling no threat from the facility, understanding the need of the region, expectation of gaining money from expropriation, expectation of an increase in customers to his/her shop or grocery. The interviewee from Special Provincial Directorate told that considering public interest was also a positive reason of not being opponents to waste site decisions in Ödemiş. Another public institution Provincial Directorate of Environment and Urbanism described the reason as either getting personal benefits or having no loss. The effect of expecting benefits was also pointed out by a headman who said that there were only a small group of people in his village who did not protest the decisions in order to get personal interest.

Negative reasons of not opposing were listed as lack of knowledge, fear, reluctance and political reasons. People did not act against wrong decisions if the proposed site of the waste facility was not in their district according to interviewees from Metropolitan Municipality, Special Provincial Directorate, Çiğli Municipality and university. Two headmen told some residents feared to participate in protests although they were against the decisions. There was a contrary opinion from Provincial Directorate of Environment and Urbanism: "I think there is no fear factor. There is no fear in İzmir. People do not fear as in the east. If they have an objection, they will not be quiet. If they are quiet, it means they do not have problems."

The worry about political lost was seen as another reason for not opposing. The interviewee from Chamber of Commerce in Torbalı criticized the district municipality because of supporting the Metropolitan Municipality. He said that the Mayor of Torbalı Municipality did not oppose to waste site decision in Taşkesik because he did not want to spoil his relationship with the Mayor of Metropolitan Municipality. Also in Menemen case, the interviewee from the Council of Menemen Municipality told that the mayor of municipality did not participate in protests with the same worries.

Ways of showing response against waste site decisions: Common ways were listed as organizing meetings (32%) and making press releases (15%) (Figure 35). In addition to these movements told by all interest groups, going to court (25%) was an effective way according to interviewed public institutions, Metropolitan Municipality, municipalities, headmen and NGOs except in the cases of Harmandalı, Yamanlar and Ödemiş. Besides, Metropolitan Municipality, Provincial Directorate of Environment and Urbanism and Chamber of Environmental Engineers pointed out the frequency in making formal written objections (14%). Interviewees from Metropolitan Municipality also said that the people opposing to land use decisions making phone calls, sending e-mails, visiting related departments, making objections to the plan decisions and meeting together and showing banners to officials in formal visits of Metropolitan Municipality to the proposed area.

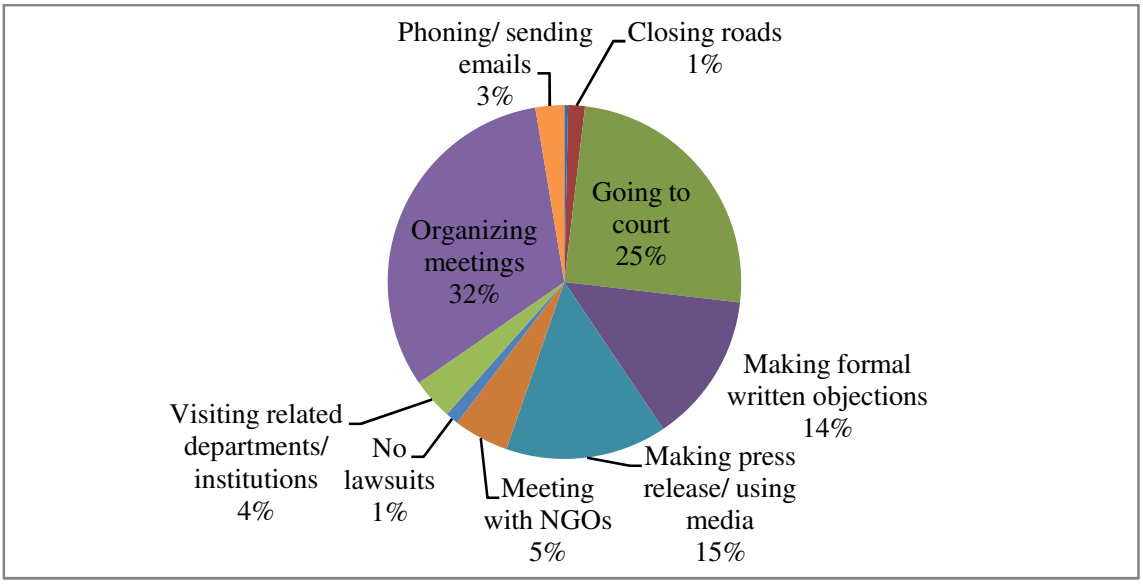

Figure 35. Ways of showing opposition in solid waste facility case

In Torbalı case, protests were showed with banners and flags by villagers according to interviews. They met with other villages and NGOs and established an initiative group against waste. They visited several public institutions such as İzmir Governance, Provincial Directorate of Agriculture and State Hydraulic Works. They welcomed two Ministers and presented their opinions and problems about the waste decision. Besides, they invited media and making press release in television shows. Moreover, they closed the road of proposed waste site.

Closing roads to the existing waste site was also a usual way of showing protests in Harmandalı. Both the Metropolitan Municipality and headman told that the residents stopped the waste transfer vehicles and making protests. Their meetings included banners, marches and slogans. They also gave criminal complaints about responsible people.

In Menderes and Yamanlar cases the municipalities told that there was no organized meetings of local people as the decisions were in preliminary steps. They indicated their predictions of possible local movements to be organized in the following periods. Unlike them, in Gökdere-Kaynaklar case a headman said that the movements ended because they succeeded in the process with the cancellation of the decision. Their ways of protesting was similar with Taşkesik and Harmandalı cases including meetings, press releases and cooperation with NGOs. They also established a union and published a periodical.

A headman opposing to solid waste facilities stated that he visited the public institutions taking part in EIA process. He told that they visited the General Director of EIA in Ankara. He said his interventions affected the EIA decisions. This was also an answer of the following question.

Whether the movements had an effect on cancellations: Protests have effects according to 49 percent of the interviewees (Figure 36). One of the headmen stated above described the "success" with these words:

> Absolutely, movements have effects. There are four elements for success: first movements, responses of NGOs, media and legal process. The jurisdiction considers the public reaction in jurisdiction process anyway. We usually took part in agenda, this is also absolutely effective. There are three or four principals, NGO visits, political talks with Minister, media. We did all of them. Therefore we succeeded.

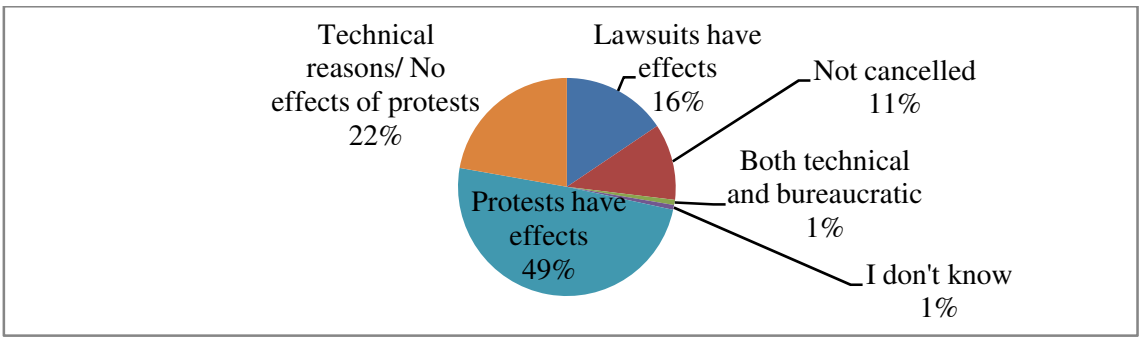

Figure 36. Effects of movements on cancellation of solid waste facility decisions

Bornova Municipality agreed that there was an effect of movements in Gökdere-Kaynaklar case. Moreover, the interviewed lawyer from İzmir Bar Association told that the effect of public movements were certain in all cancelled waste site proposals. On the contrary, all interviewees from Metropolitan Municipality told that all reasons were technical in all cases which they gave up the waste decisions. Interviewees from other parties in Harmandalı and Ödemiş cases also told that there was no effect of movements. The Special Provincial Directorate told that the reason of the cancellation of the waste site proposal in Ödemiş was not the oppositions but that the area was in conservation site. On the other hand, Harmandalı case did not include a cancellation decision, but the Metropolitan Municipality decided to change the waste site and looked for another area. According to Metropolitan Municipality, Çiğli Municipality, university and headman, the change was a technical need in terms of its capacity and proximity to the settlements.

There were no agreed answers in Menemen and Taşkesik cases in which some interviewees said "yes", some said "no". Interviewees rejecting the effect of movements were from Metropolitan Municipality, whereas interviewees believing the effect were from Provincial Directorate of Environment and Urbanism, Menemen Left Bank Irrigation Association, Torbalı Municipality and Chamber of Commerce in Torbalı. From Metropolitan Municipality only an interviewee accepted that the movements may cause negative EIA decisions in Torbalı case.

Provincial Directorate of Environment and Urbanism listed all factors affecting the cancellations as court decisions, incompatibility with regulations, formal objections and movements taking part in media. Chamber of Environmental Engineers agreed that both courts and movements affected the results. Apart from them, the situation in recent cases differed as the effects of movements had not appeared yet. In Yamanlar the land use decision was said to be "not cancelled". In Menderes the local interviewee said that the future of the decision was not certain.

Main subjects of the conflict process: When the main subjects are asked, interviewees told both the effects of solid waste facilities (88%) and the other factors (12%). They mentioned environmental concerns, odor, noise, mosquito, quality of life, objections, loss of jobs, health effects and economic effects in all cases. Besides, there were case based subjects. Visual effects and seagulls were added for Harmandalı case. Possibility of property devaluation was added by Menderes Municipality. Olive groves and agricultural lands were important subject according to local interviewee from

Çakaltepe. Agricultural production was also considered as a main subject in conflict process of Menemen, Gökdere-Kaynaklar and Taşkesik cases. In Kaynaklar, underlined subjects were proximity to settlements and effects to tourism. In the same case, Bornova Municipality told that the main subject was lack of information. Additional concerns in Torbalı case were feasibility, land ownership, olive groves, pine trees, underground water resources and air pollution. Yamanlar case also included subjects related with land ownership and underground resources. In addition, Karşıyaka Municipality pointed out the natural conservation site, afforestration and traffic problems. A headman focused on procedural subjects about the conflicts that were learning decisions from media, lack of trust to decision makers and lack of guarantee about mitigation of harmful effects of waste facility. For Yamanlar case an interviewed environmental engineer from Metropolitan Municipality told that the main subjects were technical feasibility, choosing the area that would cause least conflicts, compatibility with the development decisions of the city and the country, control systems for technologies which minimized the harmful effects and the proximity to waste producing districts.

An interesting interpretation of the interests of opponents was from an interviewee from Metropolitan Municipality. He said that protesters in Harmandalı had various problems but they could not protest them and used the meetings against waste to tell about their other problems. He told about his visit 5 years ago to their meetings in which 90 percent of complaints of local people were about issues irrelevant to waste such as handicapped people, unemployment and access to drugs.

Whether there were people harmed: Interviews recording "nobody was harmed" were performed with two public institutions (Menemen Left Bank Irrigation Association and Special Provincial Directorate), two municipalities (Karşıyaka and Torbalı), two interviewees from Metropolitan Municipality and three headmen. On the contrary, local people (24%), opponents (16%), public officers (12%), Metropolitan Municipality (8%) and headmen (1%) were said to be harmed (Figure 37).

Some damages in all cases were stated in several interviews. For example, İzmir Bar Association and Chamber of City Planners emphasized that local people suffered from conflicts in terms of tiring efforts and psychological effects. In addition, Provincial Directorate of Environment and Urbanism noted that even the officials responsible in the EIA process faced negative attitudes such as invectives and being shouted down. Besides, local people of Harmandalı were seen as being damaged in the result of the unsolved waste site problem. One interview recorded that the waste transfer vehicle of

Karşıyaka Municipality tried to hurt the protesters in the meeting against waste site. An interviewee from Metropolitan Municipality thought that the whole city is faced with costs of this unsolved problem. Furthermore, the Metropolitan Municipality had political losses. The interviewee from Menderes Municipality told that he would possibly face with political loss because of acting against the Metropolitan Municipality which was from the same political party.

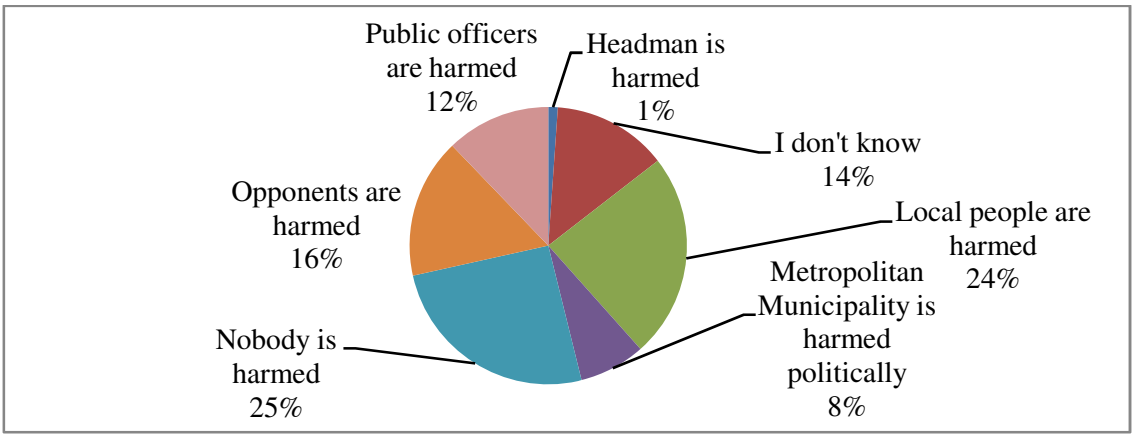

Figure 37. Whether there were people harmed in solid waste facility case

Approaches of parties to the conflict resolution: Approaches were described in the interviews about waste facilities in terms of decision makers and opponents (Figure 38).

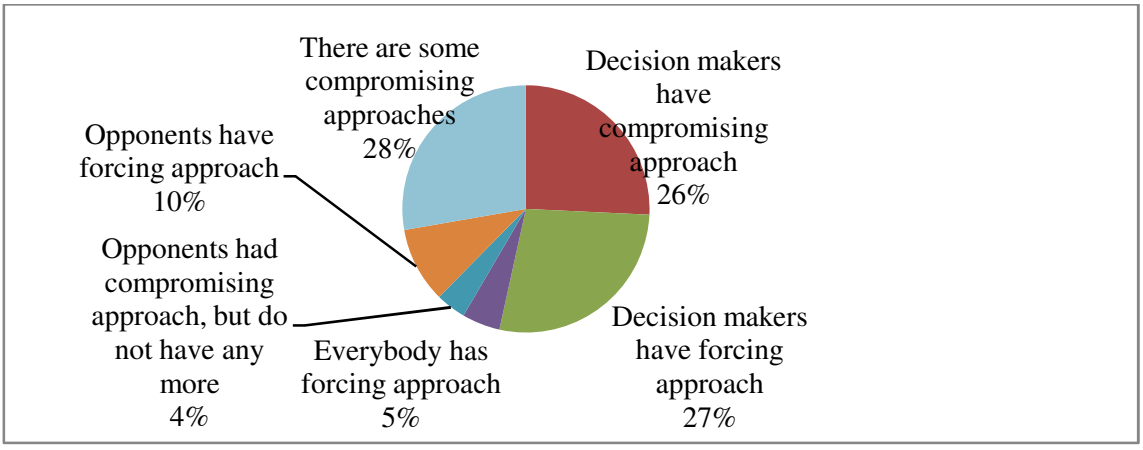

Figure 38. Approaches of parties to the conflict resolution in solid waste facility case

Decision makers in Ödemiş case were from municipality that was told to have forcing approach. In other waste cases the decision maker was Metropolitan Municipality which had various approaches including both compromising and forcing according to various interviewed interest groups. An interviewee from Metropolitan Municipality told that there would never be compromise for any cases in this process; despite the forcing protesters the decision makers would do the investments if the selected site was technically right. In a different opinion, three other interviewees from Metropolitan Municipality said that the decision makers acted in a compromising attitude in Harmandalı, Menemen and Taşkesik cases. They searched for alternatives to solve problems of Harmandalı. They gave up the area in Menemen because of its agricultural quality. In Taşkesik case, opponent interviewees agreed that the decision makers tried to persuade them. The Chamber of Commerce in Torbalı gave the example of Germany trip for the efforts of Metropolitan Municipality. According to Chamber of City Planners the efforts of Metropolitan Municipality were for winning them over rather than finding a mutual solution.

In Kaynaklar case, the Metropolitan Municipality was said to have a forcing approach without compromising at the beginning of the process. Bornova Municipality told that the Mayor of Metropolitan Municipality gave up the area at the end. In Yamanlar, an interviewee from Metropolitan Municipality listed the efforts of his institution such as visiting the site with heads of chambers and analyzing the site with six experts from universities. Karşıyaka Municipality said that all parties were insisting, whereas Çiğli Municipality said the decision makers tried to solve the conflicts but they did not adequately present the technology of the new facility. The approach of the Metropolitan Municipality was criticized by a headman with these words: "Metropolitan Municipality did not take a step. There is a thought that 'we will do how we know despite what you do'. We invited Aziz Kocaoğlu to the district. We could not get any news (*answers*) from him."

Despite this criticism in another speech the same headman talked about the collaboration suggestions of the Mayor: "Mayor Aziz is forced in this issue. The waste of İzmir… He had to find a way out. He asked for help via media. He said 'let's find a location together'." In her another speech, she described the possible protests in case of the insistence of the decision with these words: "It is said that the bidding will be offered. They may meet bigger objections. Let them not to underestimate the district."

The interviews gave various answers for various cases to the question of approaches of protesters to the conflict resolution. Everybody was insisting on their positions in Ödemiş case according to Special Provincial Directorate. Protesters had forcing approach in Harmandalı and Taşkesik according to three interviewees. An opponent headman emphasized the change in their approaches with these words: "We were favorable to compromise, but not anymore. We do not want compromise anymore. People say 'let's beat the driver (*of the waste transfer vehicles*)' and 'let's fire the vehicles'. I say it will harm us. The real responsible is the man in the upper (*chair*)."

In Menemen case, the interviewee from Menemen Left Bank Irrigation Association showed his compromising expectation from the decision makers by telling that there would be no lawsuits if the Metropolitan Municipality came to ask their opinions.

What the decision makers did for conflict resolution: This question is answered as "nothing was done for conflict resolution" in some interviews while some others listed several attempts of decision makers (Figure 39).

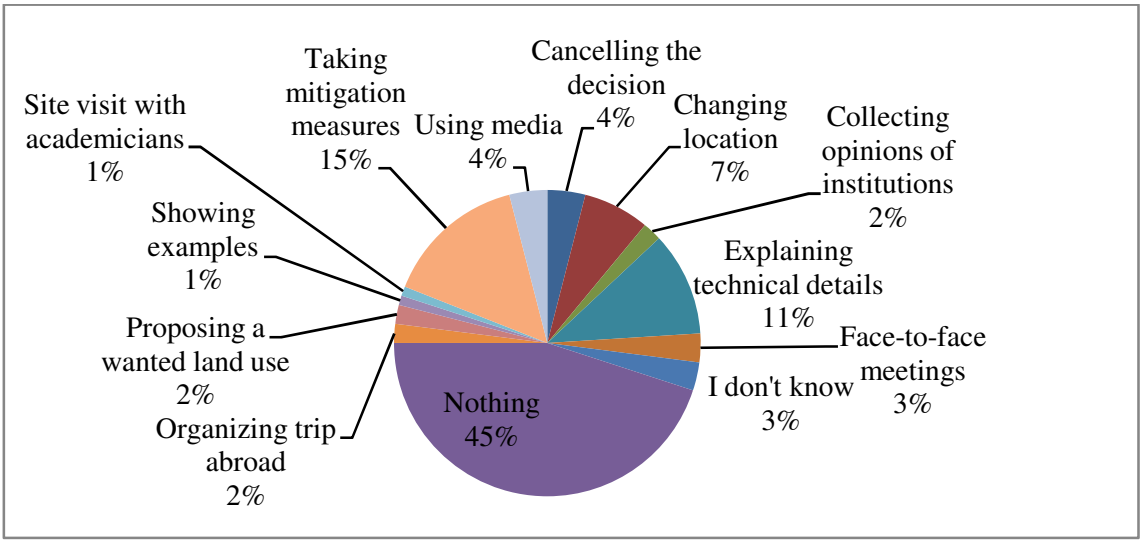

Figure 39. Attempts of decision makers for conflict resolution in solid waste facility case

The interviewees from İzmir Bar Association, Municipalities of Menderes, Karşıyaka and Bornova, and four headmen told that nothing was done. An interviewed city planner from Metropolitan Municipality accepted this and told that Metropolitan Municipality did not have to do anything for conflict resolution as the regulations gave

the right and responsibility to make any plan changes for public interest. He added his own opinions for a better process including choosing a site which satisfies everybody, making a better presentation about the project and informing people about the harmlessness of the facility.

Several interviewees explained the efforts of Metropolitan Municipality to solve conflicts. Interviewees from Metropolitan Municipality told that they made face-to-face meetings with local people and explained that the technology would not cause problems in Taşkesik. They put the animation of the new facility on website and introduced the project in several organizations. The interviewees told that they could not see whether these attempts were enough because of cancellation of the proposal with EIA decisions. Two interviewees told that the conflict resolution was ensured with the cancellation of the sites in Torbalı and Menemen. An interviewee from Torbalı told that he was phoned by Metropolitan Municipality for persuasion and invited to Germany but he did not attended to the trip. He told that the local people in Taşkesik were disappointed with the situation that the Mayor of the Metropolitan Municipality did not come to the village at the beginning and asked for their opinion.

Torbalı Municipality also emphasized the trip organized by Metropolitan Municipality to show good examples in Germany. Unlike opponents, the interviewee from Torbalı Municipality found efforts of decision makers enough and democratic. Furthermore, a city planner from Metropolitan Municipality told that more information should be given to all citizens even not protesters via media and the differences of the proposed facility from the existing disposal should be explained to minimize further conflicts.

In another interview, rehabilitation of the existing facility and search for an alternative site were seen as conflict resolution efforts in Harmandalı case. Besides, Metropolitan Municipality told that they planned a “prestigious” urban recreational area in the area of existing waste disposal in Harmandalı to be done after its closure and printed 10.000 brochures to introduce it to the local people as an attempt to minimize ongoing conflicts. Chamber of City Planners pointed out the effort of the Mayor of Metropolitan Municipality in terms of going to site and asking for support from local people. Taking mitigation measures for existing problems in Harmandalı and searching for alternative sites were also efforts for solution according to Provincial Directorate of Environment and Urbanism. On the contrary, an opponent interviewee told that nothing was done by decision makers. He wanted them to rehabilitate the existing waste

disposal, to make a face-to-face meeting, to assign a group of scientists to investigate the site and to fulfill their right of living in a healthy environment. The interviewee from university also advised the Metropolitan Municipality to show the value given to local people. Apart from them, the interviewee participating in the decision making process told that some efforts would decrease conflicts but not totally resolve because of protesters with political positions.

In Yamanlar case, Metropolitan Municipality told that they asked expert opinions of university; got positive opinions from 10 institutions and visited the site with chambers and these would be efficient for minimizing conflicts. Çiğli Municipality said that decision makers came to their institution and showed the project proposal and made a presentation of case studies from abroad. On the other hand, Karşıyaka Municipality told there were no efforts of Metropolitan Municipality except declaring decisions via media and there should be efforts to select a better site far from settlements, forests and agricultural lands.

A headman told that she did not think that the Metropolitan Municipality would take care of their protests and described the recipe for persuasion of local people with these words:

> If the Metropolitan Municipality promises with a written commitment that it (the waste facility) will have latest technology and a notarized guarantee that there will be no odor, local people of the district may be persuaded. Elected people have to act considering the health of citizens. They owe gratitude. They should do municipal services in order to ensure healthy and peaceful environment for citizens. Therefore, they have to consider opinions of citizens. If they serve in a mutually lovely and respectful way, there will be no problems and neither the Mayor nor we will get troubled.

As the decision makers in Ödemiş case were different from others, the criticisms were related to the district municipality. The interviewee from Special Provincial Directorate told that the municipality used media to blame bureaucracy to be an obstacle for them to make investments. She told that there were no other efforts of the municipality. Her suggestion for proper results in such conflict cases was organizers.

Whether these attempts were sufficient and efficient and what should be done else: The attempts were found not sufficient and not efficient by 17 percent of the interviewees. On the other hand, 1 percent of them found the attempts sufficient. Most of the interviewees (82%) emphasized critical proposals for processes with minimum conflicts (Figure 40).

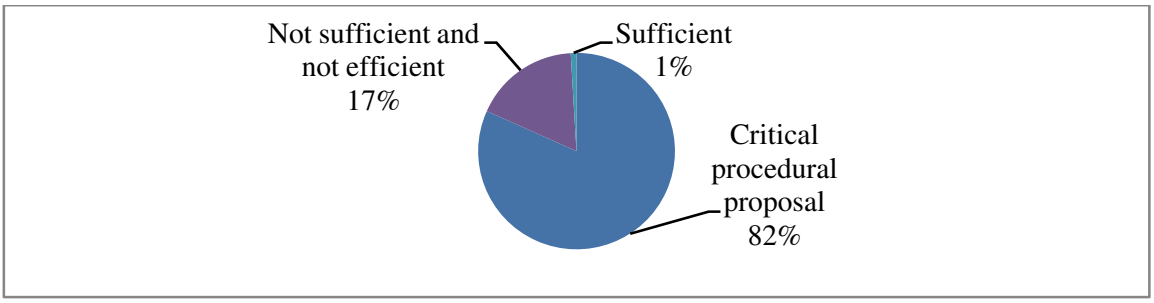

Figure 40. Whether these attempts were sufficient and efficient in solid waste facility case

Interviews included general advices for. Provincial Directorate of Environment and Urbanism told that the basic reasons of conflicts should be understood and the environmental reasons and personal interests should be separated. If the reasons were about environment then the EIA department would take part in conflict resolution process. Their other suggestion was the participatory approach. The interviewee from Menemen Left Bank Irrigation Association had a similar opinion in which he said

> Metropolitan Municipality should not decide alone. They should ensure consultation with nongovernmental organizations and local administrators. One location is not enough. It (*waste facility*) should be in four different locations. Opinions of everybody should be taken. If we live together we should decide together. Conflict resolution should have compromise.

İzmir Bar Association also emphasized the need and lack of considering the life quality and choices of local people. The land uses should be decided with a collective mind according to Chamber of Environmental Engineers and Municipalities of Bornova and Menderes. Similarly, a headman told that the conflicts would be solved if decisions were given collectively by public institutions, NGOs and universities. Another headman said "We do not want but what can be done legally? If Aziz Kocaoğlu come and explain the closed system (*for the waste facility*) we will look at the maps, visit the site and decide together whether the site is proper or not."

A suggestion from Metropolitan Municipality included the need for advanced information about the project and persuasion of people about the urgent need of the city. He also added that there could be some promises such as tree planting in the proposed area.

4.3. Conflicts in Site Selection Processes of Fisheries in İzmir

The cases studies included in this part are existing and proposed off-shore fisheries (Figure 41) in Demircili, Sığacık, Saip-Ambarseki, Küçükbahçe, Ildırı-Gerence and Mordoğan. Before examining the conflicts in their site selection processes, general information about aquaculture production and fisheries in İzmir is summarized.

Figure 41. Off-shore fisheries
(Source: MFAL, 2014c)

4.3.1. Fisheries in İzmir and Their Site Selection Procedures

Aquaculture production in Aegean Region is 26 percent of the country with 77490 tones of total production (MARA, 2006a). Aquaculture production sector had the highest increase in employment in sectors of Aegean Region (İDA, 2008). İzmir is the fourth city in the country in terms of providing added value from fisheries after Trabzon, Muğla and İstanbul. (MARA, 2006b) The aquaculture production in İzmir is 20285 tones (MARA, 2006a).

There are totally 2353 fisheries of which 1935 fisheries in inner waters and 418 fisheries in open waters in Turkey according to 2014 statistics (MFAL, 2014a). The sea fish production in Aegean Region was about 65 percent of the country in 2003 (MARA, 2006a). The sea fish production in İzmir was 20 percent of the country (Doğru Balaban, 2007). The sea fish produced in İzmir in 2002 was 70 percent of the total aquaculture production in the city while farm fish production was 26 percent. However, when their production value was compared sea fish production had 44 percent of the total production value while farm fish production had 51 percent (MARA, 2006b).

Aquaculture production of off-shore fisheries was first started in Aegean Region in 1980s in Turkey and increased in the following years (Figure 42). Former fisheries fed fishes caught from open sea and made them grown-up; however, it is forbidden to collect young fishes to be fed in fisheries in the year 2000. Instead of this method, there are fisheries used as hatchery to produce new born fishes (Doğru Balaban, 2007).

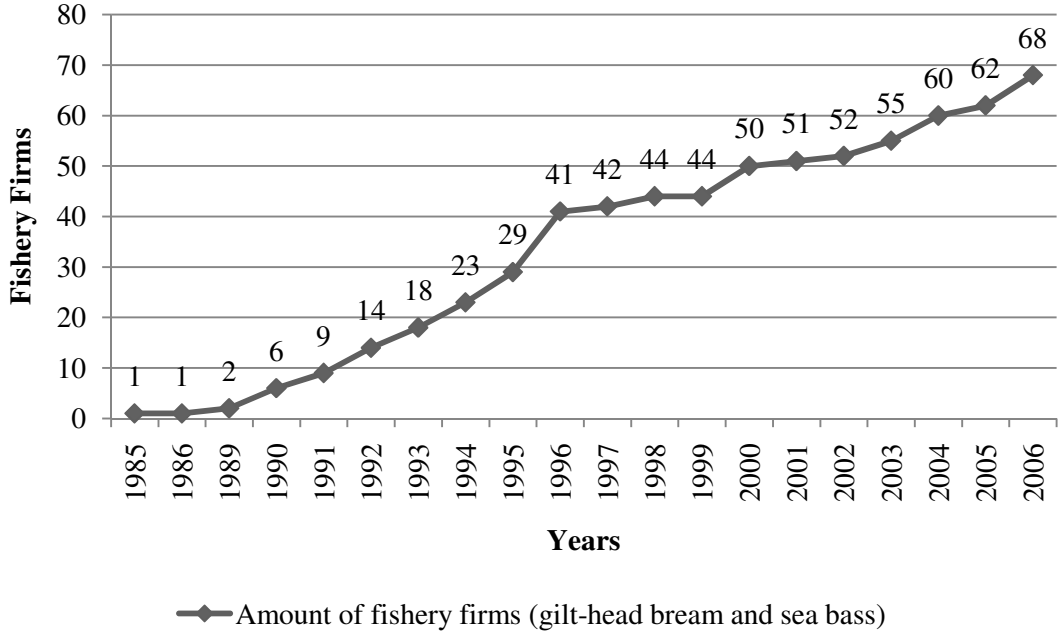

Figure 42. Amount of off-shore fisheries in İzmir (1985-2006)
(Source: İDA, 2008)

There are 85 aquaculture facilities (1 in Aliağa, 4 in Bergama, 19 in Çeşme, 8 in Dikili, 1 in Foça, 26 in Karaburun, 2 in Kemalpaşa, 1 in Ödemiş, 2 in Seferihisar, 1 in Tire, 20 in Urla) and 6 hatcheries (1 in Aliağa, 1 in Bergama, 2 in Çeşme, 2 in Dikili) in İzmir (MFAL, 2014b). According to Provincial Directorate of Agriculture, there are 66 off-shore fisheries in İzmir (Figure 43).

The site selection process of fisheries is affected from related legislation including the Law about Aquaculture (No. 1380; 22.03.1971), Environment Law (No. 2872; 09.08.1983), Coast Law (No. 3621; 04.04.1990) and regulations about aquaculture production, coastal pollution, environmental impact assessment and renting aquaculture production areas.

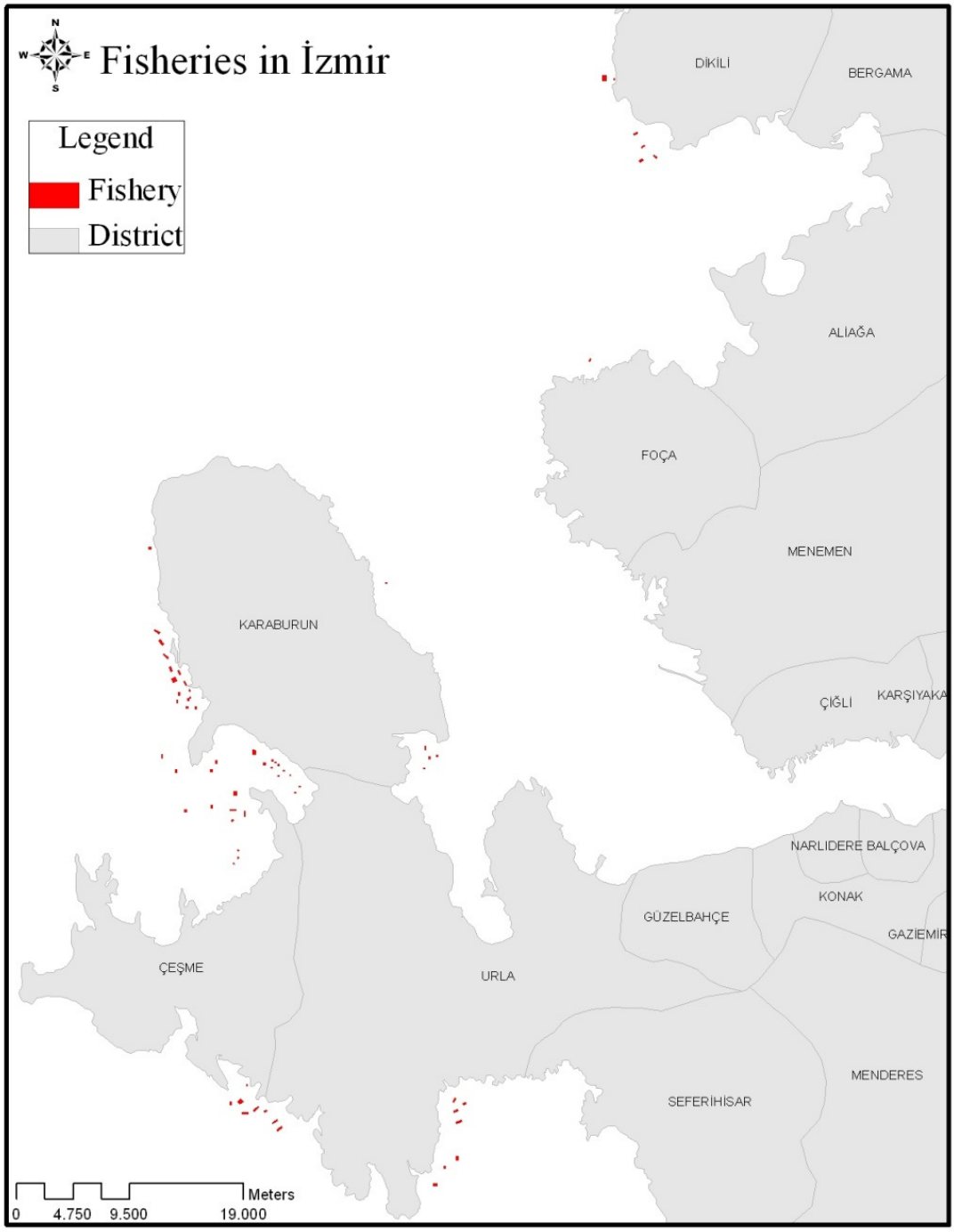

Figure 43. Fisheries in İzmir
(Source: produced by author with the data from Provincial Directorate of Agriculture)

The notification about the sensitive closed bays and gulfs in which fisheries can not be established is published by Ministry of Environment and Forestry in 2007. The criteria regulates that fisheries are not allowed in areas

- smaller than or equal to 30 meters in depth
- smaller than or equal to 0.6 sea miles from coast in distance

- smaller than or equal to 0.1 meter per second in flow speed
- parameters about eutrophication in this notification

Existing fisheries lacking these criteria were moved to the areas appropriate to the criteria.

Ministry of Agriculture determined potential sites for fisheries in 1993. Totally 122 potential sites are determined in the country including 29 potential sites in Black Sea, 67 in Aegean Sea, 3 in Sea of Marmara and 23 in Mediterranean Sea. Maximum additional amount of fisheries is decided to be 535 and aquaculture amount is proposed to be 85000 tones/year in this process (Doğru Balaban, 2007). Another attempt to determine potential sites for fisheries is done after the notification about the sensitive closed bays and gulfs in which fisheries can not be established. A protocol is signed for potential locations in February 22, 2008 by related public institutions. The fishery companies are restricted to select their fishery sites out of these potential areas (Akbaş, 2010). Ten potential sites for fisheries are determined in İzmir (Figure 44).

İzmir Integrated Coastal Management and Spatial Strategy Plan is prepared by the Ministry of Environment and Urbanism and it is in approval process. A draft copy of the plan is shared in the website of the institution. This draft plan includes the existing off shore fisheries and potential sites for fisheries only in its investigation report and development potentials map but not in its plan document, the plan only includes the logistic facilities of fisheries. The fisheries are regarded as threats to environment in this plan. The proposals of the plan about fisheries only include rehabilitation and regulation of their logistic facilities and review of the potential site decisions in Karaburun and Sığacık with regard to the results of the lawsuits. The plan notes, for instance in Çeşme and Karaburun sub-regions, include policies to control fisheries not to harm environment and tourism sector. There are no policies to develop fishery sector or to direct the location demands of the fisheries.

There are some conflicts between public institutions about fisheries in terms of lack of coordination according to İzmir Agriculture Master Plan. One of these problems is the problems about logistic facilities such as depots and cottages for guards which are not allowed in National Parks by Ministry of Forestry. Another problem is the requirement of an EIA process by Ministry of Environment. Besides, there is a conflict about the inability to share coasts with Ministry of Tourism. Moreover, the requirement of permissions in conservation sites by Ministry of Culture is seen as a problem restricting the development of fishery sector (MARA, 2006b).

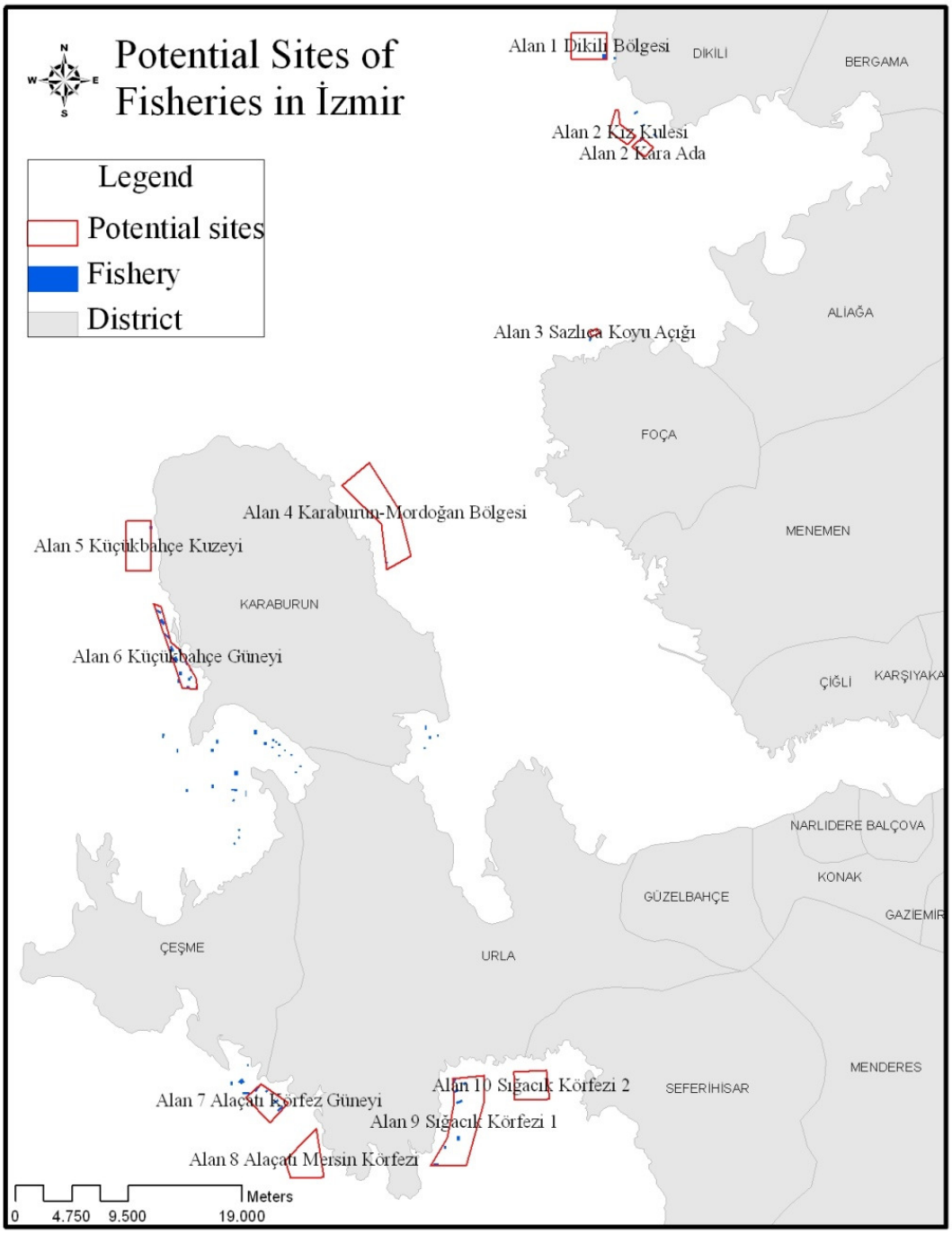

Figure 44. Potential sites of fisheries in İzmir
(Source: produced by author with the data from Provincial Directorate of Agriculture)

Companies which want to establish fisheries must apply to Ministry of Food Agriculture and Livestock. This institution gives permissions to projects without inconvenience to health, national economy, marine traffic, technical and scientific requirements according to Law about Aquaculture. The regulation about aquaculture

production (29.06.2004) describes the process of application for permissions of fisheries (Figure 45). The application is evaluated by the institution with investigations before permissions. The regulation also regulates the conditions for trial production, compulsory change of location, and transfer of projects, employment, environmental impacts, health of aquaculture and control of fisheries. The fisheries are controlled every year in April, May or June according to this regulation.

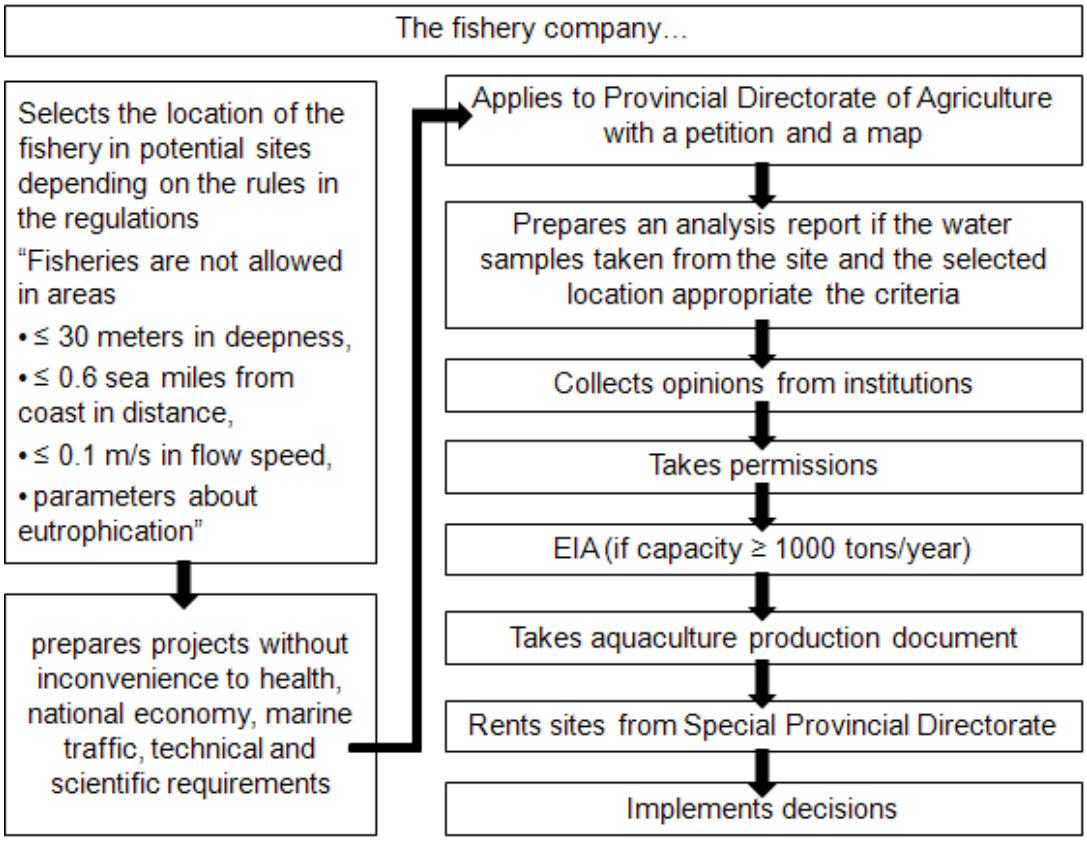

Figure 45. Site selection process of fisheries in İzmir

4.3.2. An Overview of Conflicts in Site Selection Processes of Fisheries in İzmir

Conflicts about fisheries were seen in several locations in İzmir. Protests in Karaburun started in 2005 and continued in following years in villages such as Küçükbahçe, Saip and Ambarseki. Besides, fisheries in Çeşme and Sığacık are protested in many movements. Notifications, investigations and control of fisheries and

punishment and transfer of fisheries are also main parts of the timeline of fishery conflicts in İzmir (Figure 46).

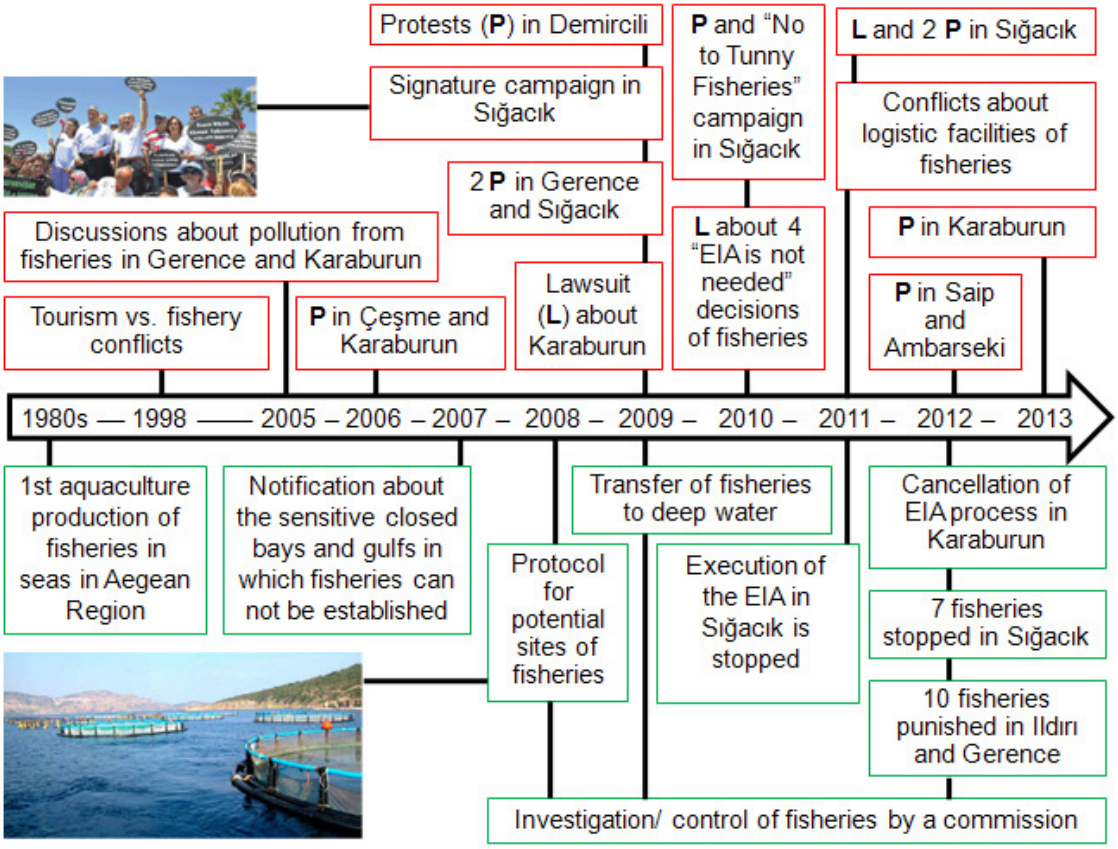

Figure 46. Timeline for fishery conflicts in İzmir

4.3.2.1. Findings of Document Analysis and Media Search for Fishery Conflicts

The first news about fishery conflicts in İzmir emphasized the environmental problems of fisheries located in shallow water and the procedural problems depending on the lack of coordination between local governments and ministries. The off-shore system used in all other Mediterranean countries is proposed by an instructor from the Department of Fish Feeding in the Faculty of Sea Products in Aegean University. In this system, fisheries were located in parts of bays with 30-40 meters deepness. On the other hand, fisheries were seen as a threat for tourism and the major of Bodrum Union of Hoteliers wanted the fisheries to be located far from touristic uses (H, 13.02.1998). Another newspaper article from the same year included news about a killed

Mediterranean seal in Foça and emphasized the discussions about the threat of fisheries to seals (H, 09.04.1998).

Fisheries increased pollution in Gerence Bay located in Karaburun Peninsula according to news in 2005. The secondary house owners wanted the bay to be analyzed; an expert from Dokuz Eylül University investigated the site; he found that the bay was polluted by fisheries (M, 22.07.2005). The villagers from Ildırı and secondary house owners started movements with an aim of making 12 fisheries carried out of the bay. On the other hand, the manager of the fisheries told that they did not pollute the water while feeding tunny. It was noted that their fishery was moved from Ayvacık, Çanakkale to Ildırı, İzmir (H, 01.08.2005).

The minister of the Ministry of Environment and Forestry made a trip by helicopter and looked at the fisheries in the Aegean Coasts. He told that the fisheries were not located in the legal boundaries of 1 sea mile. The rule of 1 mile distance to shoreline was regulated for the coasts with cultural and tourism areas on 3.12.2001 by the Ministry of Culture and Tourism. He explained that there were 11 institutions responsible in these areas and there was a lack of coordination between them. He told that the Ministry of Environment and Forestry was included in the process with the change in the regulation about EIA due to EU criteria on 16.12.2003 (M, 19.08.2005).

According to a fishery owner, the reason of pollution in fisheries was the fish food which could not swim and there was a need for swimmable fish food. He told that the aquaculture fish production was 11 percent of the seafood production in Turkey. This ratio was 26 percent in Japan, 28 percent in Greece and almost 20 percent in EU countries. There were 10000 workers in 1450 seafood fisheries in Turkey. The gain from exports of seafood was 90 million dollars and the 60 percent of this was from fisheries (M, 19.08.2005).

In the following year, there was a protest against fisheries in Çeşme. The participators included the mayors of Mordoğan and Karaburun Municipalities and nongovernmental organizations from Çeşme, Karaburun and Mordoğan such as Chamber of Tradesmen, Çeşme Tourism Association, Çeşme Hoteliers Association and Atatürk Thought Association. The activists met in Çeşme Square, made a convoy including 60 boats, and sounded the horns. They told they did not want fisheries near the coast. They said that the artificial food given to tunnies polluted the water. They emphasized the threats of fisheries to tourism in Ilıca Bay. The manager of Çeşme Tourism Association told that there were more than 90 fisheries in the Karaburun

Peninsula. She told that the proposed fisheries should be located in deep water and the existing fisheries should be controlled strictly (H, 01.10.2006).

There were conflicting opinions about fisheries. One point of view emphasized the pollution caused by fisheries. On the other hand there were groups opposing this view and claiming that the limitations affected the economics badly. Besides, there were groups blaming responsible institutions to allow the fisheries because of underlying political reasons (M, 17.10.2006).

Fisheries were promoted in 1st Aquaculture and Environment Workshop in İzmir. The head of the Seafood Federation told that fisheries did not cause water pollution; on the contrary they considered this, because fisheries needed clean water. He complained about biased news and blames. He told that the first aquaculture fishery of the country was established in 1985 in İzmir. There were 68 existing fisheries and 30 fisheries in preparation. 30 percent of the production was exported to European countries. Turkey was the 6th in Europe in aquaculture production. There were no illegal fisheries in İzmir. All existing fisheries got permissions due to Environmental Impact Assessment (EIA) Regulation (H, 07.12.2006).

Dead tunnies were found in Boyalık and Paşalimanı coasts in Çeşme (H, 05.01.2008). Also, there were dead gilt-head breams in Muğla coasts. Therefore, a deputy from İzmir suggested a research about the problems resulted by fisheries. Environmentalists from Güllük Bay announced their movement plan and said that nobody had the right to damage the ecological balance and the health and environment of local people. While the reason of dead fishes was seen as pollution, the minister of the Ministry of Agriculture and Rural Affairs told that the reason was the downpour (H, 18.01.2008).

The Environment Research Commission of the Grand National Assembly of Turkey investigated the fisheries to determine the precautions for sustainable environment policy. They investigated the fisheries in İzmir, Aydın and Muğla. They found that there was not much pollution. They left the fisheries in Muğla with gift boxes full of gilt-head breams (H, 10.11.2008). After the news and responses about the gifts, the fishes were sent to Child Protection Agency (H, 11.11.2008; M, 11.11.2008).

The “notification about determination of closed bays and gulfs with sensitive area characteristics in which fisheries cannot be located” regulated that the fisheries must be located 1 km far from the coast line and in 30 m deep water. Depending on this notification, 45 of the total 64 fisheries in İzmir were moved to deep water. Other 19

fisheries remained operating with their EIA Reports and permissions from Ministry of Agriculture and Provincial Special Administration (H, 28.04.2009).

The Ministry of Environment and Forestry told the situation about the fisheries in Aegean and Mediterranean Seas. There were 59 fisheries in İzmir; 22 of them were transferred; nine of them were closed; and 25 of the other 28 were in preparation of transfer in May, 2009 (H, 09.05.2009).

According to the following news, there were 64 fisheries in İzmir when the notification is published; and 59 of them were inappropriate. Then new fisheries were established and the total amount is increased to 82. The inappropriate fisheries were transferred, closed or fined. Finally, seven of the 82 fisheries were left and they were in preparation of transfer in June, 2009. These amounts showed that İzmir was the most successful city in Turkey in coping with fisheries (H, 21.07.2009; M, 21.07.2009). There was a continuous control of fisheries by a team including biologists, agricultural engineers and experts from Provincial Directorate of Environment and Forestry, Provincial Directorate of Agriculture, Ege University, and Veterinarian Research Institute. They were called 'Fishery Searching Commission' (H, 21.07.2009).

The people against tunny fisheries in Gerence Bay organized movements (Figure 47). Also the people in Sığacık, Seferihisar acted against the transfer of tunny fisheries from Antalya to Sığacık. The mayor of Seferihisar Municipality joined them. In both of the movements, the polluting characteristics of tunnies were emphasized (H, 11.08.2009).

Figure 47. Fishery protests in Sığacık in 2009
(Source: left photo H, 11.08.2009; right photo YA, 15.09.2009)

A protest against tunny fisheries in Gerence Bay was organized by Greenpeace, an international environment organization (Figure 48). The activists showed banners about protecting ecosystem, stopping tunny crime and transferring fisheries out of the bay. They put floats carrying banners writing 'crime scene' between the fisheries. The movement was continued from their ship called 'Rainbow Warrior' (YA, 11.09.2009; H, 12.09.2009).

The ship of Greenpeace came to Pasaport-Konak and the activists continued the movement in the city center. They decided to support the signature campaign of '10000 people against fisheries' in Sığacık. They explained the reasons of their protest that they did not want fisheries in valuable areas (YA, 12.09.2009). Then, they went to Sığacık and met other nongovernmental organizations and local authorities there. Also, they prepared an exhibition in their ship against tunny hunting (H, 13.09.2009). The local people in Sığacık joined to their movement (YA, 15.09.2009).

Figure 48. Fishery protests supported by Greenpeace in Sığacık
(Source: left photo H, 13.09.2009; right photo YA, 11.09.2009)

A representative from Peninsula Environment Platform told that there was a lack of control in management and site selection of fisheries. He told that they applied to World Health Organization and they were waiting for results of the legal process in Turkey to apply to the European Human Rights Court. He explained the bad situation that the sea was so polluted that it was not possible to swim in. He told that they did not believe to the explanations of the authorities about fisheries (YA, 23.10.2009; H, 24.10.2009; M, 24.10.2009).

12085 signatures were collected in the 'No to Tunny Fisheries' campaign with a support of 50 environmental associations in İzmir. 22 representatives organized by Seferihisar Environment Protection Union went to Ankara and they met in front of the Grand National Assembly of Turkey. They showed banners, walked through city center and protested tunny fisheries (H, 16.11.2009). The head of the Grand National Assembly of Turkey explained that he would support this campaign and that he would try to stop fisheries in Sığacık (YA, 02.12.2009).

There was a public meeting about EIA of tunny fisheries in Demircili, Urla. The local environmentalists left the meeting and told that they did not wanted fisheries. The people attending to the meeting were the head of the Urla Provincial District, the mayor of the Seferihisar Municipality, the director of the Environment and Forest Directorate of Seferihisar, representatives of political parties, representative of TEMA (The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats), and the head of Seferihisar Environmental Protection Union (H, 21.12.2009).

The amount of fisheries in İzmir was the 30 percent of the fisheries in Turkey in 2010 due to news. İzmir was the second city having most fisheries after Muğla with 51 percent of the fisheries in the country. The 98 percent of the inappropriate fisheries in these two cities moved to places in deeper water which were defined by the Ministry of Environment. The fishery owners were unhappy to move because they explained that the places defined by the Ministry were not suitable for fisheries. The legal process about the fisheries which did not move was continuing. Some fishery owners gave up their work (YA, 20.02.2010).

The Ministry of Environment and Forestry explained that the area would not face with eutrophication problem and the proposed fishery was appropriate to the regulations. It was planned to be moved to Sığacık from Gazipaşa, Antalya. It would have a capacity of 700 tons/year (YA, 20.08.2010; H, 20.08.2010). The EIA report was applied in 6 November 2009, and was approved in 18 August 2010. The report included explanations about the fishery: the fishery would be in 35000 m2 of area; it would be 3000 m far from the nearest coast; 5 km far from Demircili Village and 6.5 km to Sığacık (H, 20.08.2010). The environmental lawyer criticized the approval of EIA report while there was a decision of the Council of State about stopping the execution of the plan (M, 21.08.2010).

Movements against tunny fisheries in Sığacık were again started after this news (Figure 49). The local people, the mayor of Seferihisar Municipality, cyclists,

representatives of political parties, environmentalists and popular film directors and actors attended to meetings. They called this ‘silent meeting’. 100 cyclists from Leman Journal Cyclists Association showed their response by cycling. The mayor of Seferihisar Municipality explained his worry about losing the title ‘Citta Slow’ (YA, 21.08.2010; H, 21.08.2010; M, 21.08.2010).

Figure 49. Fishery protests in Sığacık in 2010
(Source: left photo M, 21.08.2010; right photo M, 22.08.2010)

An investor of fisheries presented a report to the Prime Minister. The report criticized the decision of transfer of fisheries to deep water and told that the fisheries needed places in shallow water for the young fishes and for repair facilities of the cages. There were also other criticisms from various investors. They decided to invest to fisheries in Kuwait, Greece and Egypt and they told that they could not use water resources of their own country (YA, 28.08.2010).

Seferihisar Municipality organized a festival on 25-26 September, 2010. It included a meeting and a swimming protest against tunny fishery in Sığacık. There were hundreds of people including the mayor of İzmir Metropolitan Municipality, the mayor of Seferihisar Municipality, local people, environmentalists, various popular film directors, actors and actresses. There were also film shows and concerts (H, 23-30.09.2010; YA, 25.09.2010; M, 26.09-03.10.2010).

The head of Çeşme Tourism Hoteliers Union applied to Provincial Administration, Municipality and Provincial Environment Committee to clarify the reasons behind the pollution in Ilıca Coast (YA, 08.10.2010).

Selçuk Yaşar wrote a book ‘Facts about Aquaculture Fisheries’ emphasizing the difference between tunny fisheries and fisheries of gilt-head bream and sea bass. He told that the former was the most polluting and should be moved to deep water, whereas

the latter was not polluting seas and would be unfeasible when moved to deep water (H, 13.10.2010).

Paulo Saturnuni, the father of the 'Citta Slow' philosophy, came to Turkey for a festival in Seferihisar. He signed to the 'No to Tunny Fisheries' campaign of Sığacık (M, 03.12.2010).

There was a following conflict about the logistic facilities of the fisheries. These facilities were located in the shoreline and used for transfer of staff, fish and food for fish. The Directorate of National Real Estate of İzmir Revenue Office wanted firms to close these logistic facilities. The fishery owners told that closing them means closing fisheries. The governor told that there was lack of regulations about this point and that it would be solved. New regulations were proposed in a report prepared by Provincial Administration. There was a need of maps showing shorelines and conservation plans with permissions from the Cultural and Natural Heritage Conservation Committee. Also, there was a need for a change in the regulation about the allocation of forest lands. The governor told that they proposed new solutions to the existing legal and administrative problems (YA, 11.02.2011).

The fishery firm taking EIA report rented 3,5 ha of area in Sığacık Bay. This started the movements again (Figure 50). A meeting was organized in Sığacık. Almost 2000 people from all around the country, representatives of various groups, NGOs, political parties and famous people attended to the meeting. A photo exhibition and a film showing fish crime was presented. The activist fishermen told that they would keep watching the bay and would stop the fishery before established. They showed banners and shouted slogans. The mayor of Seferihisar Municipality and representatives of Greenpeace made press releases (M, 09-12.03.2011; YA, 12-13.03.2011; H, 12-14.03.2011).

Figure 50. Fishery protests in Sığacık in 2011
(Source: left photo M, 09.03.2011; right photo YA, 13.03.2011)

The headman of Yağcılar Village which is across Sığacık went to court with an aim of cancellation of the revision of Manisa Kütahya İzmir Environment Plan with 1/100000 scale. The revision was about 11 fishery proposals. The court decided to stop the execution of the plan. The Ministry of Environment and Forestry objected to this decision, but the objection was not approved (YA, 02.04.2011; H, 03.04.2011).

World Environment Day in 5 June was celebrated with meetings against tunny fisheries in Sığacık (H, 05.06.2011). Some beaches in Sığacık won 'Blue Flag' and in the celebration activity the local people and municipality emphasized the need for solution to tunny fisheries decisions (M, 06.06.2011).

According to the head of Muğla Aquaculture Association, there were 1805 fisheries with a capacity of 253638 tons in July, 2011. There were also 271 fisheries with a capacity of 60289 tons continuing investment process. 358 fisheries of the active fisheries were located in seas and other 1447 of them were located in inland waters. The fisheries in seas had a capacity of 144612 tons while the capacity of fisheries in inland waters was 109026 tons. There were 26 million hectares of area suitable for fisheries, but only 3 percent of this amount was used (M, 10.06.2011).

The execution of the EIA report for the fisheries in Sığacık was stopped by court decision with new expert reports. This was celebrated by environmentalists, local people and other activists. The reasons of the decision were that the sea was not an open sea; the bay was a habitat for Mediterranean seal; and the area was in a sensitive conservation zone due to both national legislation and international contracts (YA, 06.11.2011; H, 07.11.2011; M, 08.11.2011).

Orhan Cura wrote a book 'From My Life Story: Last 73 Years of Fisheries in Çeşme' and emphasized that there had been problems in site selection processes of fisheries in Turkey. The coastal potential of the country could not be used. There was a lack of infrastructure of fisheries and there were lots of illegal fisheries in unsuitable locations (YA, 26.11.2011).

The head of İzmir Union of Seafood Production criticized media to make people against fisheries. He told that the legislation and regulations in Turkey was too restrictive when compared to other countries such as Greece, Norway and Japan. He told that the fisheries of gilt-head bream and sea bass were not polluting water. There were 344 approved projects of fisheries in Turkey. The total capacity was 145000 tons/year. There were 25000 workers. The gain from exports was 450 million dollars (H, 06.03.2012).

The following movement against fisheries was in Karaburun. The EIA meeting was disturbed by almost 300 people including villagers from Saip and Ambarseki Villages and environmentalists (Figure 51). The protests were supported by the mayors of municipalities of Karaburun, Mordoğan, Seferihisar, Foça and İzmir Metropolitan Municipality (YA, 15-27.03.2012; M, 15.03.2012). The minister of the Culture and Tourism Ministry told that he was not pleased with the fisheries in Karaburun and other coasts (YA, 30.03.2012).

Figure 51. Fishery protests in Saip and Ambarseki
(Source: left photo YA, 15.03.2012; right photo M, 15.03.2012)

After the protests in the EIA meeting in Karaburun, the EIA process was cancelled. The Provincial Directorate of Environment and Urbanism started the application process to make Karaburun a Special Environmental Protection Zone (YA, 05.04.2012).

Meanwhile the court decided to stop fisheries in 7 cases in Sığacık. 3 of these cases were against 'EIA is not required' decisions; 2 of the cases were about the cancellation of the Environment Plan; other 2 of them were about the cancellation of the positive EIA reports (YA, 08-09.04.2012; M, 09.04.2012).

Selçuk Yaşar wrote a new book 'How can Turkish gilt-head bream and sea bass sector compete with EU and other countries within these limitations?' and told that the distance determined for fisheries was not fit to actual market situations. Academicians from seafood engineering faculties of 12 universities supported him. He proposed a conference for all parties. He told that Turkey could not compete in international seafood market with these limitations. He proposed the usage of EU criteria in fisheries (YA, 11.04.2012).

An environmental commission from the Grand National Assembly of Turkey made an analysis trip to Karaburun and talked with the representatives of NGOs and headmen (YA, 25.04.2012). 10 fisheries near the shoreline were punished in Ildırı and Gerence Bays. The fishery owners told that they were transferring young fishes in the cages near the shoreline and so the punishment was unfair (YA, 30.05.2012).

4.3.2.2. Interview Findings for Fishery Conflicts

Fishery conflicts were subject to 23 interviews performed with 32 people. Interviewees answered following questions.

The stage in which the interviewee participates: Interviewees were from several stages (Figure 52). Most of the interviews were conducted with people from site selection (37%) and opposing stages (44%).

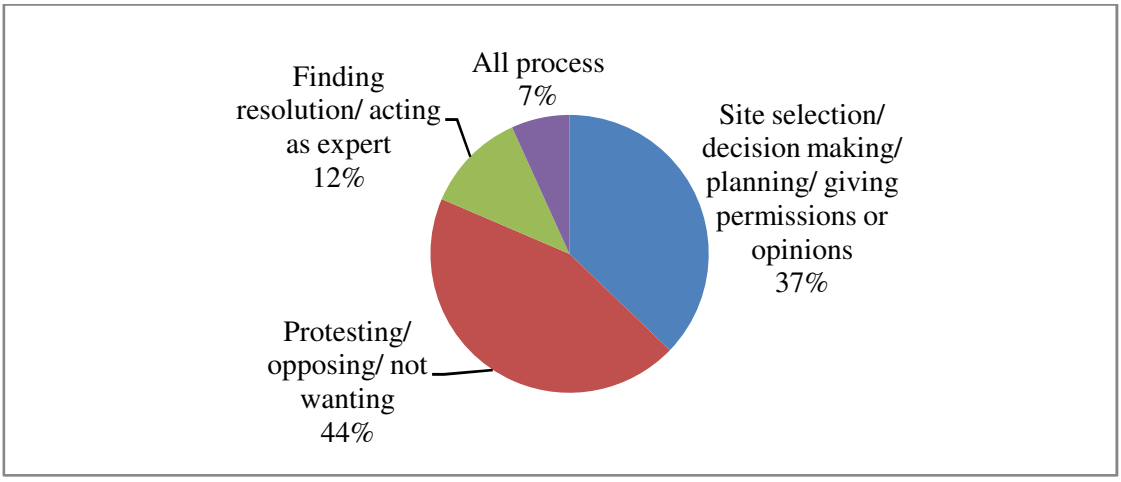

Figure 52. Stages of the process in which the interviewees of fishery case participate

Two private companies and a public institution, Provincial Directorate of Agriculture, told that they took part in the site selection process. Interviews from Provincial Directorate of Environment and Urbanism stated that they evaluated the selected location in terms of regulations and EIA process. An interviewee from university told that he participated in the meeting for determination of potential sites of fisheries. Another interviewee took part in courts as an expert of fisheries. Chamber of Environmental Engineers and Chamber of City Planners told that they shared opinions with decision makers. Five headmen told that they were excluded in the site selection

processes. The interviewees taking part in protests were headman of some villages of Urla and Karaburun, municipalities of Seferihisar, Urla, Mordoğan and Karaburun, City Councils of Seferihisar and Karaburun, İzmir Bar Association and university.

How the sites are selected by whom: Interviewees gave detailed, short or critical answers to this question or they stated the decision maker but not answered how the sites selected (Figure 53).

Interviewees taking part in site selection process gave the details of the process such as selection of potential locations, project preparation details of the private companies, permissions taken for investments, EIA processes, capacity limits and related regulations. An interviewee from university gave details about criteria of distance, depth and flow. According to the interviewee from Provincial Directorate of Environment and Urbanism, the site selection was directed by the private companies and individuals. Besides, Chamber of City Planners told that the locations were decided with the demand of enterpriser rapidly and secretly.

The decision making process for potential locations of fisheries were criticized by several interviewees who were included in the process. The interviewee from Provincial Directorate of Agriculture told that the potential locations were decided with a subjective approach by directions of Ministers towards their political and private interests. He stated that the representatives of union of aquaculture producers were excluded from the decision making process.

There were various points of views about the EIA process of fisheries. İzmir Bar Association said that the public participation meeting was a requirement of EIA. Mordoğan Municipality criticized this process in which he said the results were always 'positive' although the municipality gave negative opinions. Besides, the interviewees from Karaburun Municipality and Seferihisar City Council stated that the private companies took 'EIA is not needed" report by showing their capacities lower.

Inclusion of local people to the process was lacking according to several interviewees. The Municipality and City Council of Karaburun and six headmen told that decision makers did not ask to local people. One of those headmen answered that "I do not have any information. They do it from the Ministry. They finish the work from their desks without seeing here."

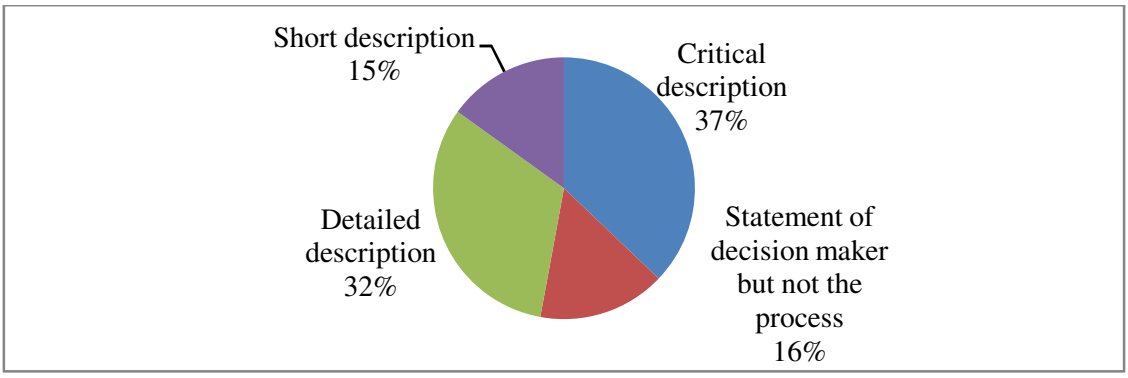

Figure 53. Answers to the question asking how the sites are selected by whom in fishery case

Whether the site selection was right: While 51 percent of the interviewees found the site wrong, 20 percent found the site right (Figure 54). There was a crucial difference between answers of interviews to the question asking the rightness or wrongness of the site selection decision. The interviews from university, Provincial Directorate of Agriculture and private sector stated that the locations were right, whereas Provincial Directorate of Environment and Urbanism, Municipalities of Mordoğan, Karaburun, Seferihisar and Urla, eight headmen, and NGOs including İzmir Bar Association, City Councils of Seferihisar and Karaburun and Union of Environment, Culture and Tourism of Karaburun told that the decisions were wrong.

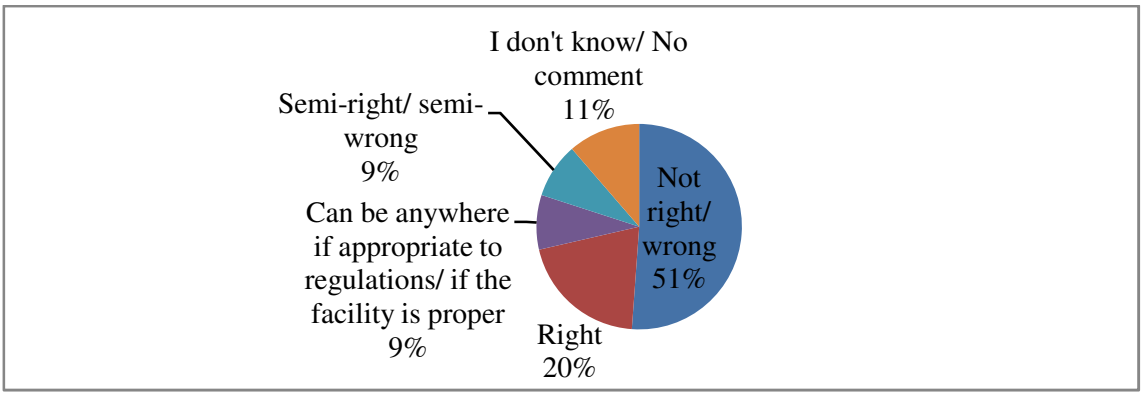

Figure 54. Perceptions of interviewees on rightness of the site selection in fishery case

Seferihisar Municipality explained the reason of finding the location wrong in terms of several aspects. One of them was the pollution of Sığacık Bay because of the flow direction. Another reason was its bad effects to fisheries and tourism. Headmen

protesting fisheries in Karaburun told that the fisheries were located in short distances to the coast without considering regulations. An interviewee from university told that the distances of fisheries to the coast were shorter in the past but their current distances were long and their new locations were right. On the other hand, another interviewee from university stated that there were fisheries whose locations were wrong because they were far from the coast.

Three interviewees including Chamber of City Planners, university and a headman did not comment on this question and told that they did not have enough knowledge to evaluate this. Apart from them, the Provincial Directorate of Environment and Urbanism told that the decisions which fulfill the regulations would be listed as 'right'.

Success of the site selection process: Unlike the previous question, there were only slight differences between answers to this question. There were no interviewees finding the site selection method absolutely successful, only one of them told that it seemed successful within facts of Turkey. 78 percent found the decision making process unsuccessful. One percent did not answer the question (Figure 55).

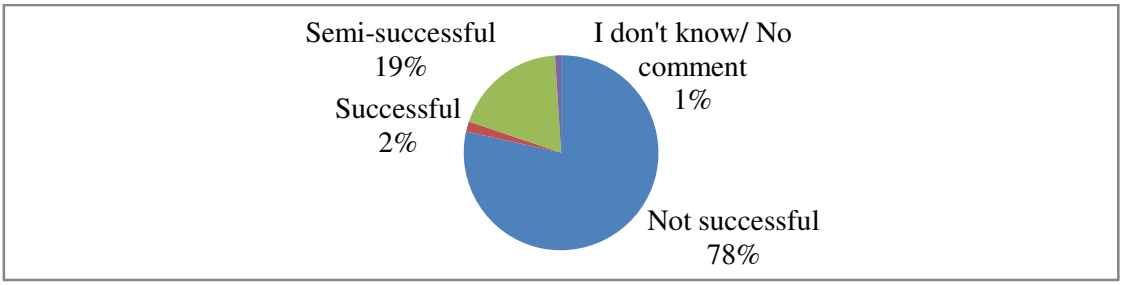

Figure 55. Perceptions of interviewees on success of the site selection process in fishery case

Two interviewees had opposing opinions about the participation in the process. One of them, the interviewee from Provincial Directorate of Environment and Urbanism, said that the EIA process was the only participatory process; however, the other one, the interviewee from university, told that the participation was for the sake of formality but not an efficient one. The unconvincing aspects of the participation were also criticized by other two interviewees from Urla Municipality and Ege University.

The variety in the actor groups giving the answer that the process was unsuccessful was an interesting result of the interviews. Interviewees from public

institutions to private companies, from local people to universities, from NGOs to municipalities found the method of decision making about the locations of fisheries "unsuccessful". It was also interesting to see that both opponents and proponents of fisheries found faults with site selection process. Also, both decision makers and host communities criticized the decision making method.

A hard critique of the decision making process was from the Provincial Directorate of Agriculture. The interviewee told that the decisions of potential sites for fisheries were given by political powerful actors and their criteria were subjective including criterion of distance to the secondary housing of Ministries. In addition to this critique, an interviewee from the fishery company in Demircili told that the location decisions should be made by people knowing the local and people knowing the profession rather than people sitting in their offices in Ankara. He also complained about the lack of regulations and plan decisions about locations of the logistic facilities of fisheries in the coast. The lacking parts in the regulations were also stated by another interviewee from fishery company in Ildırı.

In Sığacık case, there was a critique different from other cases. The problem was the exclusion of local people in Sığacık and Seferihisar from the participation process. The interviewee from Seferihisar Municipality told that the fishery was located in the boundaries of Urla, therefore the public participation meeting required in EIA was organized in Urla but the exact impacts of the fisheries were seen in Sığacık because of the flow direction. Besides, the interviewee from Urla Municipality told that they could hardly get information about the public meetings and said that "people who have never lived in Urla decide the sea and territory of Urla".

Opponents/ Proponents: Most of the opponents to fisheries listed in interviews were same with the solid waste facility cases. These were villagers, the people living nearby, NGOs, political actors and municipalities (Figure 56). In addition to these common answers, municipalities of Urla and Karaburun listed the lawyers as opponents of fisheries. The interviewee from Karaburun Municipality also said that all people living in the Peninsula were against fisheries. Local fishermen and tourism sector were also listed as protesters by Municipality and City Council of Seferihisar and the interviewee from university. Another interviewee from university added secondary housing owners to the opponents of fisheries. He criticized the opponents from public institutions unrelated with the coast and from media groups owning capitals in tourism

sector. Similarly, interviewees from private sector told that sectors using coasts opposed to each other and tourism sector utilized the environmentalists.

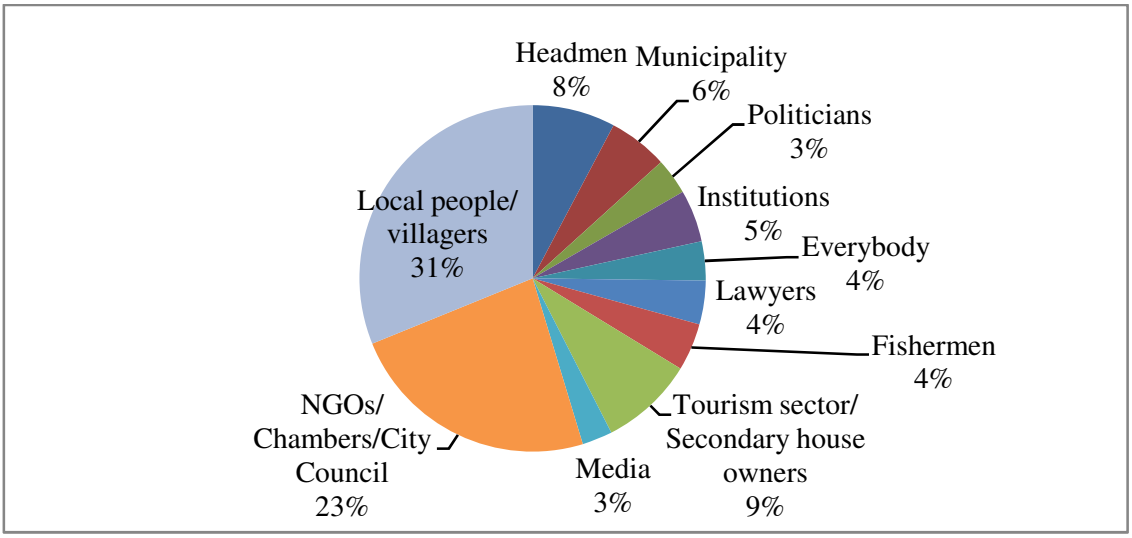

Figure 56. Opponents in fishery case

Protests against fisheries in Karaburun were said to be **semi-organized** and both **local** from the Peninsula and supported by people from Urla and Foça. Fishery protesters in Urla were local according to Urla Municipality. In Sığacık case, interviewees agreed that the protesters were both from local and out of the town and all protests were organized. The interviewees from public institutions answering the questions for all fishery cases in İzmir told that some of the protests were organized and some of them were not organized.

The **proponents of the fishery decisions** were listed as investors, institutions, people making use of job opportunities and fishermen (Figure 57). The interviewee from İzmir Bar Association stated that the Ministry was supporting. EIA Department of Provincial Directorate of Environment and Urbanism and Urla Municipality told that the investors supported the decisions.

Interviewee from fishery company in Ildırı said that there were no supporters of fishery decisions. On the contrary, a headman and an interviewee from Provincial Directorate of Environment and Urbanism stated that some of the local people supported the fisheries for the employment opportunities. Also, local fishermen were said to support fisheries in Ildırı.

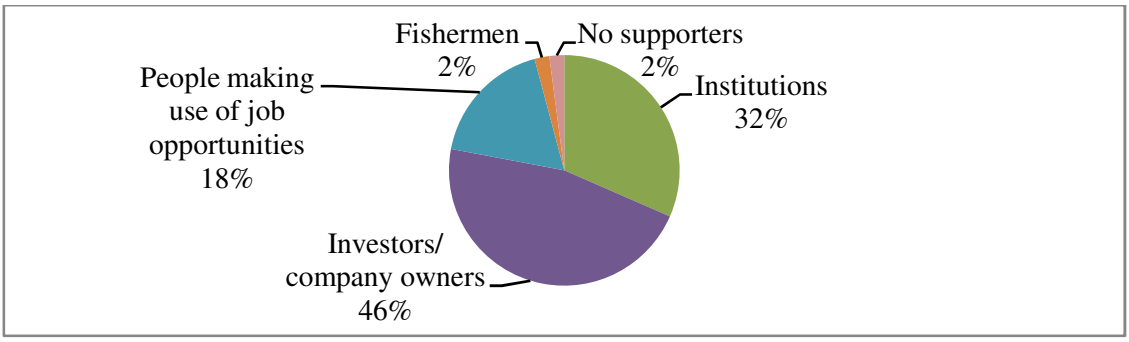

Figure 57. Proponents in fishery case

Amount of people in the conflict process: Interviewees from public institutions and university said that they could not give an exact amount of protesters in the movements against fisheries (43%) (Figure 58). The amounts told by other interviewees varied due to the cases and actor groups. In Demircili case, there was a crucial difference between the amount given by the headman who said there were about 5000-6000 protesters and the amount given by the fishery company who said there were maximum 50-100 people.

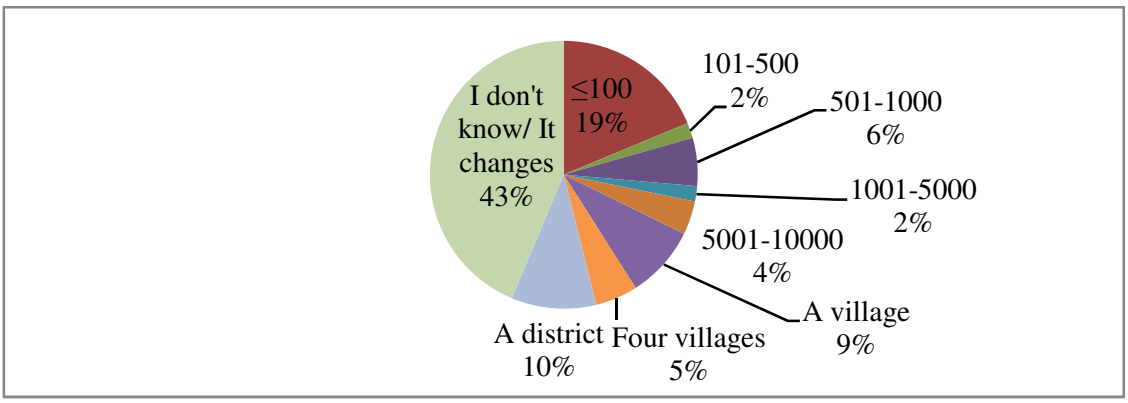

Figure 58. Amount of opponents in fishery case

In Sığacık case, the differences were also visible. Headman of Sığacık told that there were 500 people protesting. Similarly, the interviewee from university stated that the protesters were about 300-500 people. Headman of Yağcılar told that the protesters included all population including 614 people in his village. On the other hand, the Provincial Directorate of Environment and Urbanism said that all people in Seferihisar were protesting. Seferihisar Municipality gave an amount of 5000 people for the first

meeting and 3000 people for the second meeting. Moreover, City Council of Seferihisar talked about four meetings with 1000 protesters in the first one, 3000-5000 protesters in the second and third ones, and almost 1000 people in the last one.

In Karaburun, the Municipality and the City Council told that all people living in the Peninsula supported the protests against fisheries. Mordoğan Municipality said that "Karaburun Peninsula has a population of 8500 people. 500 of them say yes and 8000 of them say no". Three headmen and an interviewee from a local NGO agreed that a majority of people from Karaburun Peninsula was opposing to fisheries. Headmen of Saip and Ambarseki stated that there were 800-1000 people in the protests. Headmen of Ildırı told that the amount of protesters increased in summer because of secondary housing owners and decreased in winter.

Reasons of being opponents: Main reasons of conflicts in fishery cases were environmental problems, sea pollution and being wrong informed (Figure 59).

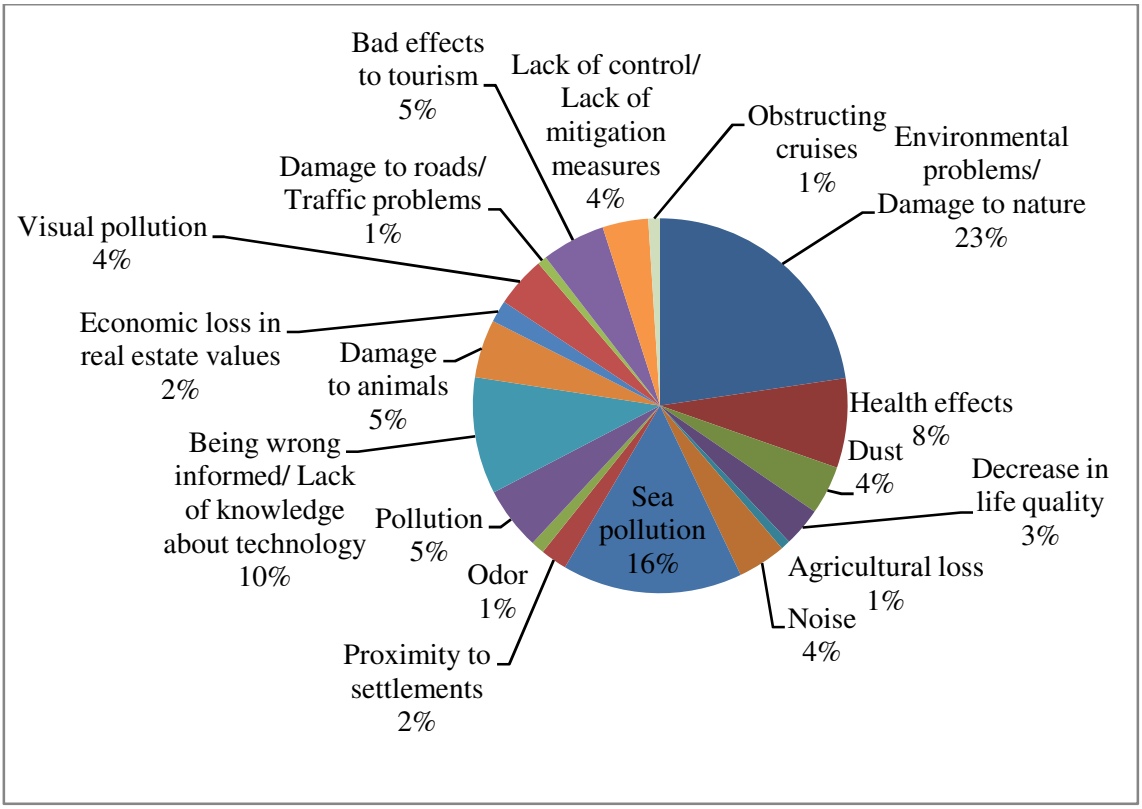

Figure 59. Reasons of being opponents in fishery cases

The answers given to this question can be grouped as reasons related with problems affecting people living nearby, reasons related with environmental matters,

and reasons related with other interests. The first group includes reasons of proximity of fisheries to settlements in the Saip, Ambarseki and Küçükbahçe cases; the dust and noise caused by trucks used for logistics of fisheries, their damage to roads and agricultural lands, the odor of the depots and the disturbing effects to seaside in Demircili case; visual pollution, health effects and disturbance of quietness in all cases. In Karaburun case, the Municipality criticized the pollution that caused people not to prefer to swim and he said that "It is 0.6 miles (*in regulations*), they come 400m closer. They do not obey their own rules… The water analyses before and after the fisheries are not shared with public. It goes 10 years later; the pollution is left to you."

On the contrary, an academician and an interviewee from private sector explained the delusion about the polluting effect of fisheries. They said that death of fishes was the indicator of pollution and the fishery companies had to prevent pollution to save their fishes. Similarly, another interviewee from fishery company criticized the point of view that fisheries polluted the sea and he told that

> There was a rumor that swimming near fisheries caused diseases. I swim every day. I have two children. I make them swim there too. At least it is the water that I am sure. I eat only farm fish. I know that there is no heavy metal in it. People usually eat fish from troll hunting; the risk of heavy metal is more.

Environmental matters were seen as reasons of conflicts about fisheries in all cases. One of these matters were sea pollution stated by all interviewed municipalities, all interviewed headmen, two NGOs and Provincial Directorate of Environment and Urbanism. Another one was damage to animals said by headmen in three cases. Seferihisar Municipality thought that fisheries eradicated species of tunny fish. The interviewee from Seferihisar City Council told that they were against fisheries because of three reasons including pollution of Sığacık Bay, fertility zones of seals and transfer of tunny fish to other countries after fattening. He and two headman criticized the chemicals and antibiotics used in fisheries.

Third group of reasons include bad effects to tourism and possible loss of properties in all cases. Two headmen told that the locations of fisheries obstructed the cruises. One of them also denigrated fishes produced in fisheries. Moreover, bad effects to local fishing activities were also seen as a reason of conflicts in Küçükbahçe and Sığacık cases.

Underlying reasons to be opponents: The reasons of conflicts about fisheries depended on underlying factors especially lack of knowledge according to most of the interviewees except nine percent saying "there were no underlying factors" (Figure 60).

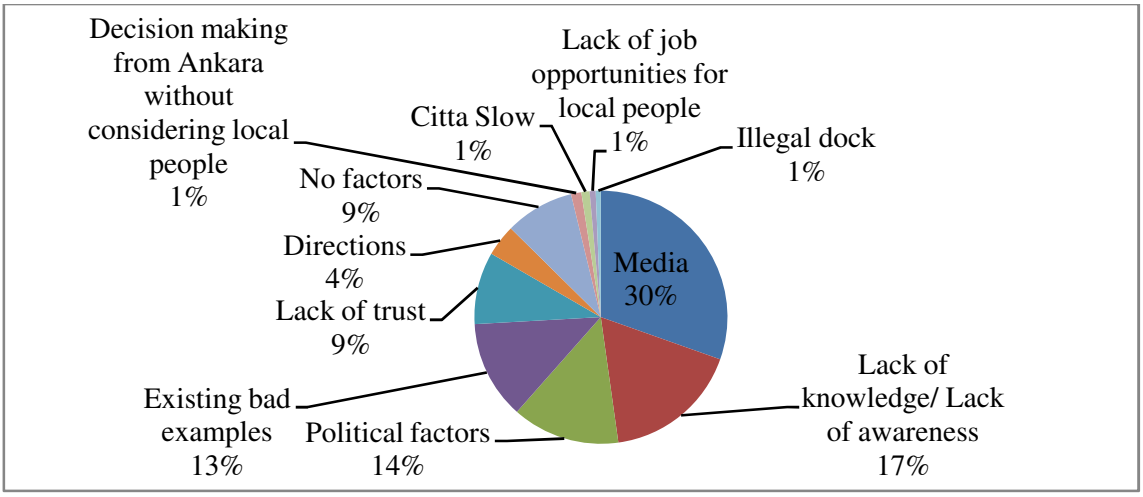

Figure 60. Underlying reasons of being opponents in fishery cases

Two interviewees from university, the interviewee from Provincial Directorate of Agriculture and two interviewees from private sector stated that the protesters thought that fisheries caused pollution however fisheries did not pollute sea as they needed fresh water. The aquaculture engineer from Provincial Directorate of Agriculture told a memory he experienced about the fisheries in Parlak Village. In his memory, a woman from the village came to the Provincial Directorate of Agriculture and complained about the pollution caused by a fishery. The engineer wanted her to show the fishery. He realized that the fishery she showed was not opened yet and the cages she pointed as a reason of pollution were empty at that time.

He and two interviewed academicians in Aquaculture Department of Ege University told that this delusion is created consciously by the media directed and supported by tourism investors. One of the academicians explained this with these words

> Indeed tourism is a powerful sector. They try to show the fishery sector as if it was too harmful by using media and television with guidance of them (*tourism sector*). Of course there were bad examples at the beginning and affected the people to oppose. Television channels show fisheries as bad.

The effect of media on protests was also mentioned by five other interviewees from universities, Chamber of City Planners, private sector and Urla Municipality. In addition, there were other interviewees agreed that the existing bad examples were reasons of not wanting new fisheries. These interviewees were from Chamber of Environmental Engineers, Seferihisar Municipality and Provincial Directorate of Environment and Urbanism. Besides, lack of control of the existing fisheries was seen as other factors by interviewees from Karaburun City Council, Chamber of Environmental Engineers and a headman. As a result, local people did not trust to decision makers and this was seen as an underlying reason of fisheries protests by interviewees from Provincial Directorate of Environment and Urbanism, university, private sector and İzmir Bar Association. An interviewed academician told that the fisheries before recent regulations were bad conditioned, irregular, technologically poor and located too much proximate to the coast and these factors started the protests. He added that their locations, conditions and technologies were corrected but the protests continued.

Political interests were seen as other underlying reasons by seven interviewees from parties including university, private sector, NGOs and public institutions. On the contrary, the interviewees from İzmir Bar Association, Mordoğan Municipality, Karaburun Municipality and Karaburun City Council told that there were no political reasons in opposition to fisheries. Besides, nine headmen and NGOs from Karaburun, Urla and Seferihisar stated that there were no underlying reasons.

The approach without considering the local people in decision making was another factor of opposing to fisheries in Mordoğan and Sığacık cases. Mordoğan Municipality criticized the site selection process for potential locations of fisheries in which the local people were excluded in decision making. He also said that there should be job opportunities for local people proposed by fisheries to gain local supporters. A headman also criticized the exclusion of local people in land use decisions made from Ankara without seeing the site.

In Sığacık case, the Citta Slow characteristics of Seferihisar were seen as a factor influencing the protests against fisheries. The interviewees from university and Provincial Directorate of Agriculture said that the Mayor of the Seferihisar Municipality used these protests to get personal and political gain and to advertise Citta Slow.

Another case based underlying factor of opposing fisheries was said to be the illegality of the dock of the fishery near the beach in one of the cases. This factor was

told by the headman who was also manager of the beach. Similarly, although the territorial facilities of fisheries in another case were legal, the headman of that village said that nobody was opposing to fisheries in the sea, but the facilities located in the coast should have controlled frequently.

Whether the site selected or its decision making process was the reason of opposing: The reason of opposing was seen as wrong locations by two headmen and two NGOs (13%)); as wrong site selection method by Chamber of City Planners (16%); as both wrong locations and wrong site selection method by 11 interviewees from headmen, NGOs, municipalities and public institutions (50%); and as none of these reasons but other factors by interviewees from university, private sector and Provincial Directorate of Agriculture (21%) (Figure 61).

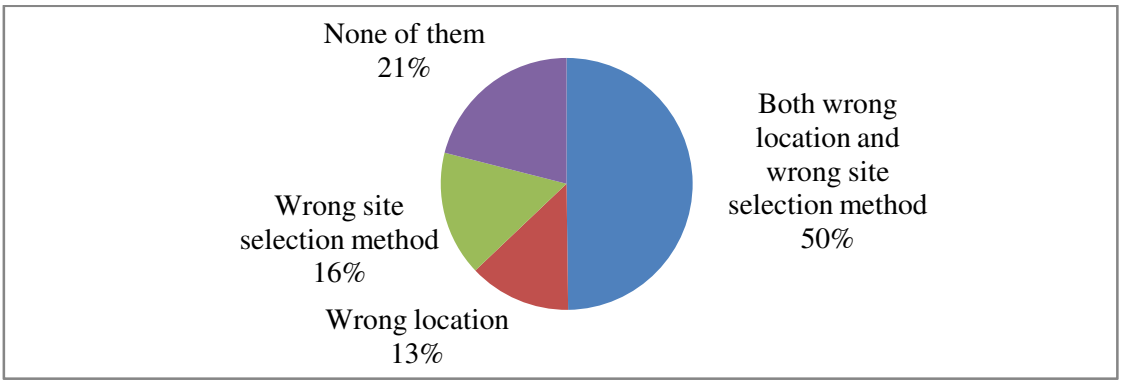

Figure 61. Whether the site selected or its decision making process was the reason of opposing in fishery case

Although four interviewees including İzmir Bar Association, Karaburun Municipality and two headmen told that there was nobody not opposing to fisheries, there were several reasons for not opposing to fisheries stated in other interviews. One of them was possibility of job opportunities according to seven interviewees including Provincial Directorate of Environment and Urbanism, Provincial Directorate of Agriculture, university, Mordoğan Municipality, Karaburun City Council, Union of Environment, Culture and Tourism of Karaburun and four headmen. Also, Seferihisar City Council said that there was an effect of political reasons in not opposing to fisheries in Sığacık. Fear, hesitation and laziness were particular reasons for Karaburun case. Other reasons of not opposing were listed as having no troubles with fisheries,

being far from them, not caring the subject, taking advantage of the increase in fishes for local fisheries, having personal gains and taking advantage of cheaper fish.

Reasons of not opposing: This question had several answers from job opportunities to cheaper fish (Figure 62). Several interviewees criticized people who did not oppose to fisheries. Seferihisar Municipality blamed people not opposing to be unconscious. Urla Municipality told that the people who were not educated did not oppose to fisheries. Lack of knowledge was also seen as a reason in Karaburun and Mordoğan cases. Three headmen and an interviewee from a local NGO told that the people with a low cultural level did not oppose to fisheries because they did not realize the danger to be faced in the future.

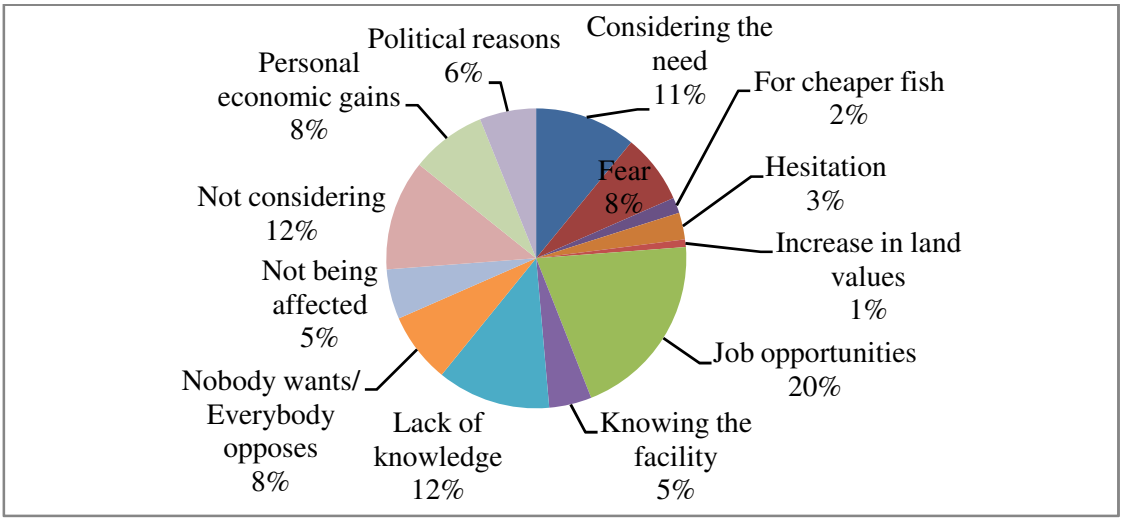

Figure 62. Reasons of not opposing in fishery case

Interviews with supporters of fisheries were resulted with a different approach. Interviewees from university and Provincial Directorate of Environment and Urbanism told that some people were not opposed because they knew that fisheries vitalized regional economy. Similarly, interviewee from private sector stated that the people not opposing knew that this was a profession and fish was a need. Another interviewee from another private sector said that the people not opposing knew that the fisheries did not pollute the sea. He said that "(*People not opposing*) knew the subject. They visited the fisheries and saw the production. They know diving. They investigated by diving and saw what happened there with their own eyes. Or they saw examples abroad."

Ways of showing response against waste site decisions: The popular answers to this question in fishery cases were organizing meetings, going to courts, signing petitions, using media, disturbing EIA meetings, inviting Chambers and NGOs, carrying banners (Figure 63), organizing villagers and getting together with people from other villages (Figure 64). The lawyer from Izmir Bar Association stated that working with an environmentalist lawyer was another way of showing response. The interviewee from Provincial Directorate of Agriculture also stated that the protesters used legal ways.

Figure 63. Protesters showing banner against fisheries
(Source: H, 16.11.2009)

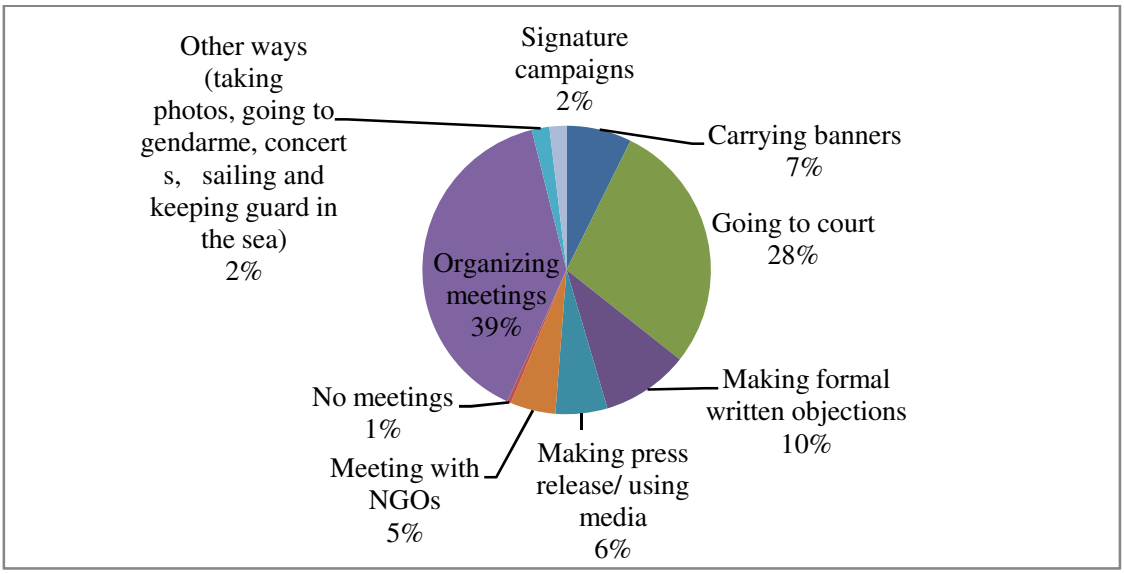

Figure 64. Ways of showing opposition in fishery case

In addition to the answers given for all cases, in Demircili the interviewee from private sector told that the protesters closed the roads of their trucks, disturbed them by taking photos and went to gendarme to complain about fisheries despite having no problem. In Sığacık case, the meetings included concerts, sailing and keeping guard in the sea according to the interviewee from university. It included bicycles, firebrands, artists and swimmers according to Seferihisar City Council. In Yağcılar case, it is told that the villagers protested fisheries by wearing a traditional scarf and playing drums and reeds. In Ildırı case, interviewees told that there were no meetings and lawsuits. In Karaburun, three headmen and two NGOs told that they worked with other NGOs. Moreover, Karaburun City Council stated that talking in televisions was another way of showing opposition.

Whether the movements had an effect on cancellations: Protests had effects according to 54 percent of the interviewees (Figure 65). Provincial Directorate of Agriculture, Provincial Directorate of Environment and Urbanism and Chamber of Environmental Engineers told that the reasons of cancellation were usually court decisions and legal complaints. Local meetings had effects on cancellations according to İzmir Bar Association and Provincial Directorate of Environment and Urbanism. Interestingly, while one of the interviewees from university told that there was an effect of movements in changing the locations of fisheries, another interviewee told that they had no effect.

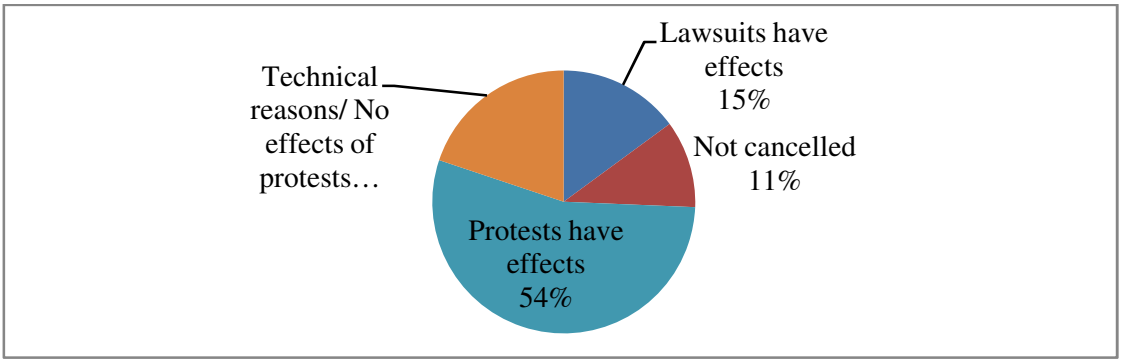

Figure 65. Effects of movements on cancellation of fishery decisions

In Demircili and Ildırı, the fisheries were not cancelled. One of these headmen told that the decision forcing fisheries to move to deeper and far locations were affected

by protests. The interviewee from private sector told that the local people had no effect on this decision but the powerful actors using coasts such as tourism had effects.

In Karaburun, Municipality said that the local efforts managed to make political powers to think that the Peninsula has special characteristics. On the other hand three headmen and an interviewee from NGO told that the amount of fisheries was increasing and only one of them was closed. The reason of its closure was mainly the fertility zones of Mediterranean seals. One of those headmen said that the local people were not considered but the seals were. On the contrary, two other headmen told that their protesting movements effected the cancellation of fishery proposal in their coasts. Mordoğan Municipality also told that the shift of fisheries to deep water was as a result of the local movements.

In Sığacık case, the headman and Chamber of City Planners said that the fishery decisions were not cancelled. The interviewee from university stated that the legal processes had more effects than local movements. Seferihisar Municipality told that wining a lawsuit was not enough and local people should have a raised voice. Seferihisar City Council stated that the movements might have effect on pausing and delaying the process.

Main subjects of the conflict process: They were listed as environmental effects, sea pollution, health effects, life quality, cruise traffic and tourism. Proximity to coasts, Mediterranean seals, wrong locations and visual pollution were added for Karaburun cases. The eradication of tunny fish species and local fishing activities were considered in Sığacık case.

The interviews about processes of site selection, conflict and solution about fisheries recorded several opposing approaches. The main opposition was about the impacts of fisheries. Local people and other institutional and civil opponents of fisheries told that the fisheries polluted the water, whereas experts from responsible public institution Provincial Directorate of Agriculture, academicians and aquaculture engineers from private companies told that they did not pollute the water. An interviewee from the first group, Seferihisar Municipality, described the fisheries as abattoirs and their working process as a murder, whereas an interviewee from the second group, an academician, described the fisheries as agricultural lands and their working process as a production. The first group blamed non-protesters to be unaware of the impacts of the fisheries whereas the second group blamed protesters to be wrong informed about their impacts. The first group stated that the fishery companies only

considered the economic benefits and did not care the environment; however the second group stated that the other sectors using coasts such as tourism considered the economic benefits and organized protests by showing fisheries as the only reason of pollution.

Although main positions of these conflicting groups were opposite, their complaints about the decision making process were similar. Both groups criticized the site selection process of potential fishery zones. Both of them found it seemingly participatory but in fact top-down. Another similar complaint was about the lack of plan decisions for docks and logistic areas in territory. For example, in Demircili both the local people and the company did not want temporary solutions as the existing location of the dock. Finally, the need for a coastal management considering the division of sectors was proposed by both of these conflicting groups. Neither fisheries wanted tourism, not the tourism wanted the fisheries. An environmental engineer from Provincial Directorate of Environment and Urbanism pointed out the tourism-fishery conflicts with these words:

> If somewhere has tourism priority and there is no coastal planning and you have not decided where the secondary housing, beaches and hotels will locate, then the conflicts are inevitable… One makes fishery, one makes hotel. Unfortunately, this conflict happens. I think this will be solved whenever healthy plans are done.

Whether there were people harmed: 22 percent of the interviewees told that there were no harmed people (Figure 66). Chamber of City Planners and İzmir Bar Association stated that local people felt tired and hurt in conflict process. A headman also agreed with this view and he said that they were psychologically bad affected. Private fishery companies had damages in terms of economic lost according to interviewees from university, public institutions and private sector.

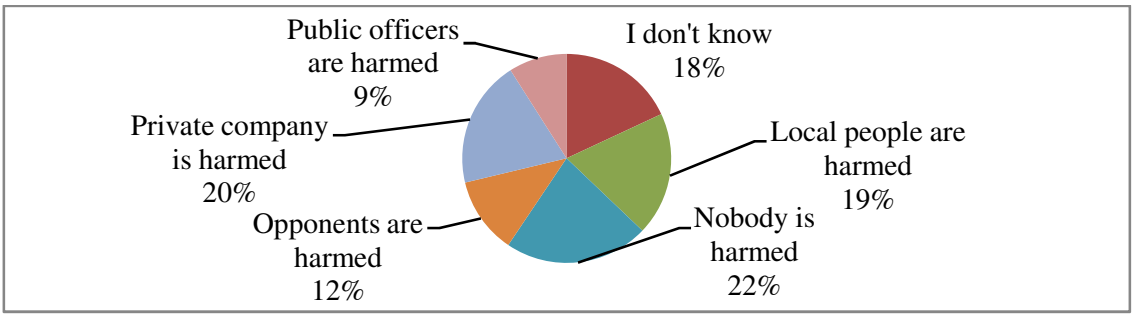

Figure 66. Whether there were people harmed in fishery case

Approaches of interest groups to the conflict resolution: Approaches were described with adjectives of forcing, compromising and avoiding in the interviews conducted about fisheries (Figure 67). Various tactics were used in the conflict processes according to Chamber of City Planners. Opponents were found forcing by interviewee from university and two headmen. Mordoğan Municipality gave example of environmentalists who did not want whatever happened. Most of the conflicts ended in courts according to the interviewee from university. Besides, state had forcing approach according to İzmir Bar Association because of giving permissions to the companies which failed in courts.

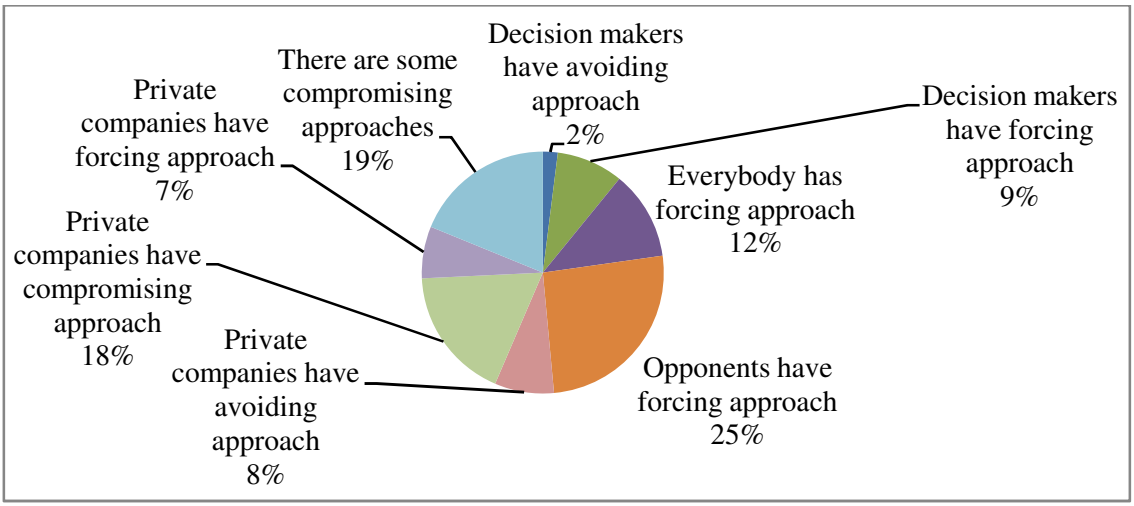

Figure 67. Approaches of parties to the conflict resolution in fishery case

A headman told that the villagers did not want collaboration and the decision makers did not care. Provincial Directorate of Environment and Urbanism stated that collaborative approaches in which parties came together were seen. An interviewee from private sector stated that they were open to collaboration but there was nobody to listen to them. Another interviewee from a fishery company told that they wanted collaboration but everything was depended on laws. Provincial Directorate of Agriculture also emphasized that fishery owners were open to collaboration and they approached positive to participate on solution. An interviewed academician told that some fishery companies in Karaburun invited the local people to fisheries, showed them their work and persuaded some of them. Karaburun Municipality also talked about a fishery company came and asked for support. On the contrary, in Küçükbahçe case,

according to local opponents fishery company thought that they could do everything because they took permissions. A headman showed his sadness about the rejection of communication attempts by the fishery companies and said that

> There are six big fisheries in my region. I do not recognize anyone. I called again and again, I said 'let's drink tea', they said 'no'. I say 'let's come', they do not come. As if they would help the village. I wanted an air-conditioner for the mosque from … (*here he said the name of the company*). They said their investment program has finished.

In Sığacık case, an interviewee criticized fishery companies not to come to the municipality and not to explain how harmless the fisheries were. On the other hand, Seferihisar Municipality told that the fishery investors tried to meet the Mayor of the Municipality. Also, the City Council explained the approach of fishery company with these words:

> It is discussed. We went with the court expert. The company tried to persuade us all the way. They gave a sandwich of meatballs as a bribe. I did not eat. They say they will do. They say 'do not worry, it will be clean'. There is not a situation of giving up for them and for us too. Neither of the parties gives up.

What the decision makers did for conflict resolution: This question was answered as "nothing" by 53 percent of the interviewees (Figure 68) including three headmen, Seferihisar City Council, Seferihisar and Mordoğan Municipalities, İzmir Bar Association and fishery company in Ildırı. Besides, Urla and Karaburun Municipalities said that the decision makers were in the Ministry and did not come to the site.

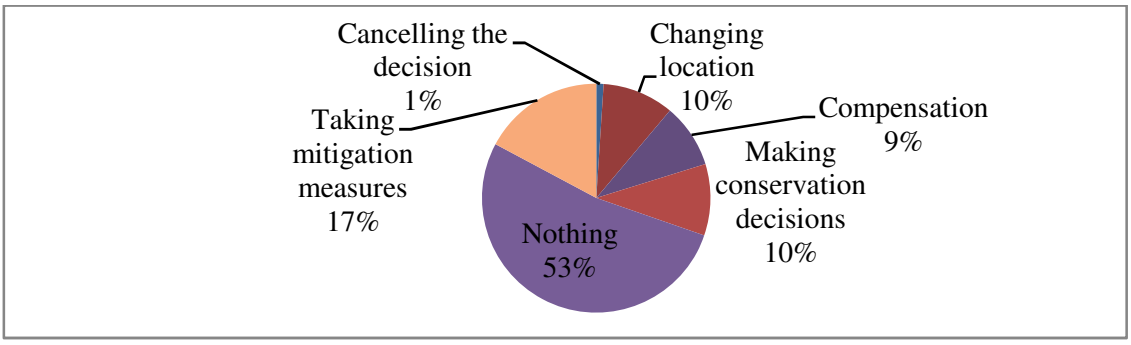

Figure 68. Attempts of decision makers for conflict resolution in fishery case

The interviews including examples of attempts done for solution were few. In Demircili, it is said that the company will change the location of dock in 3-5 years.

Karaburun City Council, Union of Environment, Culture and Tourism of Karaburun and three headmen said that the conservation decision for Peninsula was an important step to solution. The interviewees from university told that the decision of potential locations, the shift of fisheries to deeper waters, the controls of environmental impacts after giving permissions were attempts to improve the process and minimize conflicts. Provincial Directorate of Agriculture also pointed out the technical controls. In Sığacık, the court decision to stop the fishery activities was also seen as a solution. Taking precautions to prevent environmental problems was seen as a way of conflict resolution by Provincial Directorate of Environment and Urbanism.

The interviewee from Chamber of City Planners made a general evaluation of attempts of various parties: "Even if the investors meet anyone (*from local people*), he/she will not propose an alternative other than compensation. I do not know an investor who says 'we will not do if you do not want'. Politicians say this but the same thing is not possible for investors."

Whether these attempts were sufficient and efficient and what should be done else: The attempts of decision makers found "not sufficient" and "not efficient" (Figure 69) by local interviewees from Sığacık, Küçükbahçe, Salman, Parlak, Union of Environment, Culture and Tourism of Karaburun, Urla and Karaburun Municipalities, Karaburun City Council, private sector, university and public institutions including Provincial Directorate of Environment and Urbanism and Provincial Directorate of Agriculture. Their critiques included incompatibility with plan decisions, need for revisions in regulations, lack of public participation, need for detailed investigation and inefficiency of decisions given by central government rather than local institutions. The private sector called for solutions from state and said that they did not want to face with local people but the state should solve conflicts. One of them also criticized EIA department not to announce that the fisheries were right. The problems that the locations of fisheries were not decided in plans or regulations were emphasized by private sector, public institutions, university and local people.

On the contrary with critiques two interviewees from university told that there were some attempts done for improvement of decisions about fisheries. One said the attempts were more than needed. In his opinion, it was unfair to blame to be the only and biggest reason of sea pollution and it was wrong to move all fisheries to deeper water. The other one said that there was a further need for integrated coastal management to give locations for each sector using coasts and it should be done with

collaboration of various institutions, ministries, NGOs, local institutions and representatives of sectors. Participatory coastal management was also proposed by private sector.

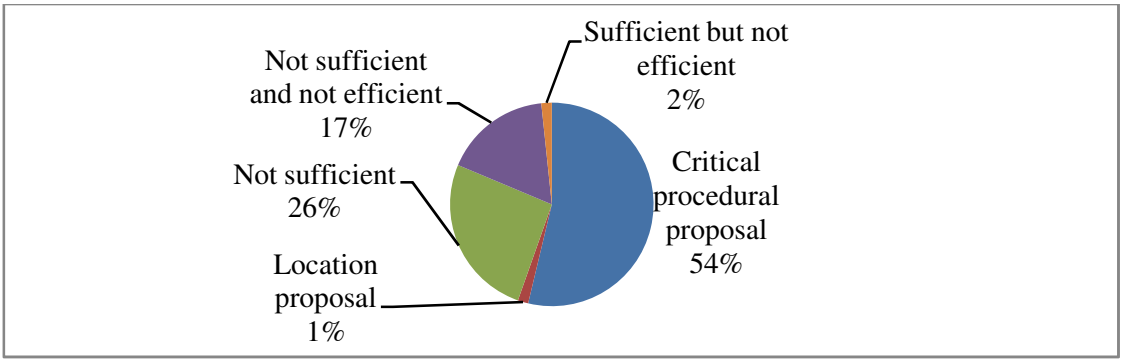

Figure 69. Whether these attempts were sufficient and efficient in fishery case

There were several other proposals of interviewees for solution of conflicts. Municipality and City Council of Karaburun and Mordoğan Municipality focused on the consideration of local needs and interests in the decision making process. Urla Municipality, a headman and İzmir Bar Association stated that the solution was to separate tourism and fisheries.

The decision making process should be transparent and clear according to Seferihisar Municipality. Provincial Directorate of Agriculture told that fishery conflicts could only be solved by increasing consciousness and education of society about fisheries.

Apart from solution proposals, the interviewee from City Council of Seferihisar was hopeless about the solution and told that they hoped nothing from decision makers. Similarly, three headmen stated that they only wanted fisheries to leave their villages rather than any other solutions.

Finally, the concluding commends could be made with the evaluation of Chamber of City Planners:

> The solution in decision makers' head is the implementation of projects. They do not care whether the project is right. Indeed, their solution approach is the realization of their wants. Here, if the investor goes and the work will not be done, or the investment is done and local people will go. Castells says collaboration can only be between collaborative interests. Here, there is not collaboration; there is only 'yes' or 'no'.

4.4. Conflicts in the Site Selection Processes of Quarries in İzmir

The third part of the case study includes a LULU about resource extraction: quarries (Figure 70). The conflict facing quarries in İzmir are located or proposed to be located in Germiyan, Yağcılar, Nohutalan, Özbek, Karaburun, Kösedere, Pınarbaşı, Belkahve, Gökdere-Kaynaklar, Çakmaklı, Yenmiş-Akalan-Ansızca, Çambel, Karakuyu-Yeniköy-Çileme and Ahmetbeyli. Following part includes brief information about quarries in İzmir and then examines conflicts.

Figure 70. Quarry
(Source: An interviewee from quarry company)

4.4.1. Quarries in İzmir and Their Site Selection Procedures

Quarry sources are used as raw material in the industry of the country; therefore they have an important role in the economy of İzmir (İMM, 2010). İzmir is in 10th rank in the cities with added value proportions in quarry sector (Figure 71) (Alp, 2004).

Quarries located in İzmir are used for building stones and other construction materials. The physical growth of the city caused the quarries to be in the middle of urban areas (Figure 72). As the demand for stone increased, new quarries were established in both north and south (Koca and Kıncal, 2004).

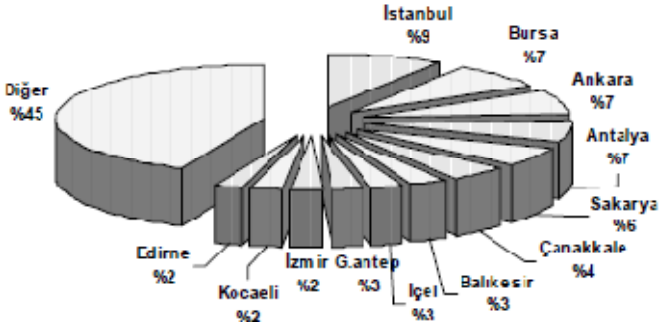

Figure 71. Added value proportions in quarry sector of cities
(Source: Alp, 2004).

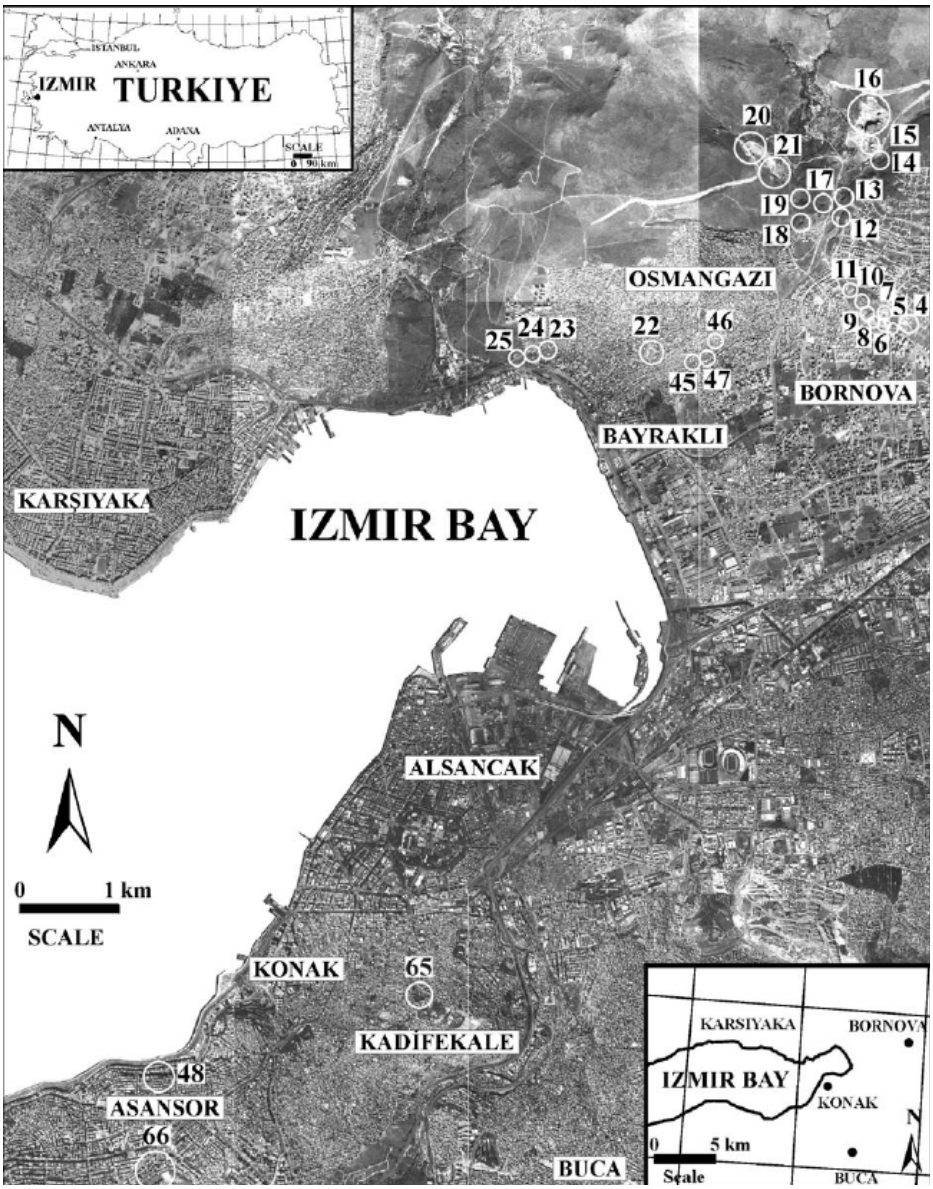

Figure 72. Locations of the stone quarries in İzmir
(Source: Koca and Kıncal, 2004)

İzmir city center hosted 70 abandoned quarries according to Koca and Kıncal (2004). Some abandoned quarries in İzmir were used as landfills by local people and some factories and there was a risk of contamination of underground water in these kinds of quarries. Quarries in Belkahve and Altındağ are stopped by Metropolitan Municipality in 2004 because of their environmental effects (Koca and Kıncal, 2004). Ex-quarries in Belkahve are rehabilitated and planted (Figure 73).

Figure 73. Planted and rehabilitated ex-quarries in Belkahve

Until 2004, the quarries were regulated with the Quarry Regulation (1901). In 2004, the regulation was repealed and the quarries were included in the Mine Law (No. 3213; 04.06.1985). The change in regulation brought some improvements to implementation such as requirement of technical experts, restriction of small quarries, minimization of visual pollution (UAP, 2006). The Quarry Regulation was so old that there were statements including Sultan's order and Ottoman money.

The process for quarry owners starts with finding sources and taking searching licenses (Figure 74). The Mine Law requires miners to apply for permissions in the first three months after getting searching licenses. These permissions include EIA report or 'EIA is not needed' report, Unhealthy Institutions Permission, rehabilitation plan, permissions for forests, pastures, conservation sites, water basins, habitats for wild animals and emissions. EIA reports include capacity, flowchart, size, technology, staff and duration of the project, use of natural resources including land, water, energy and infrastructure, the amounts and types of wastes, possible risks, possible environmental

impacts such as air pollution, water pollution and visual pollution, precautions to these environmental impacts, the location of the project, land uses, conservation sites, alternatives of the project and public participation process.

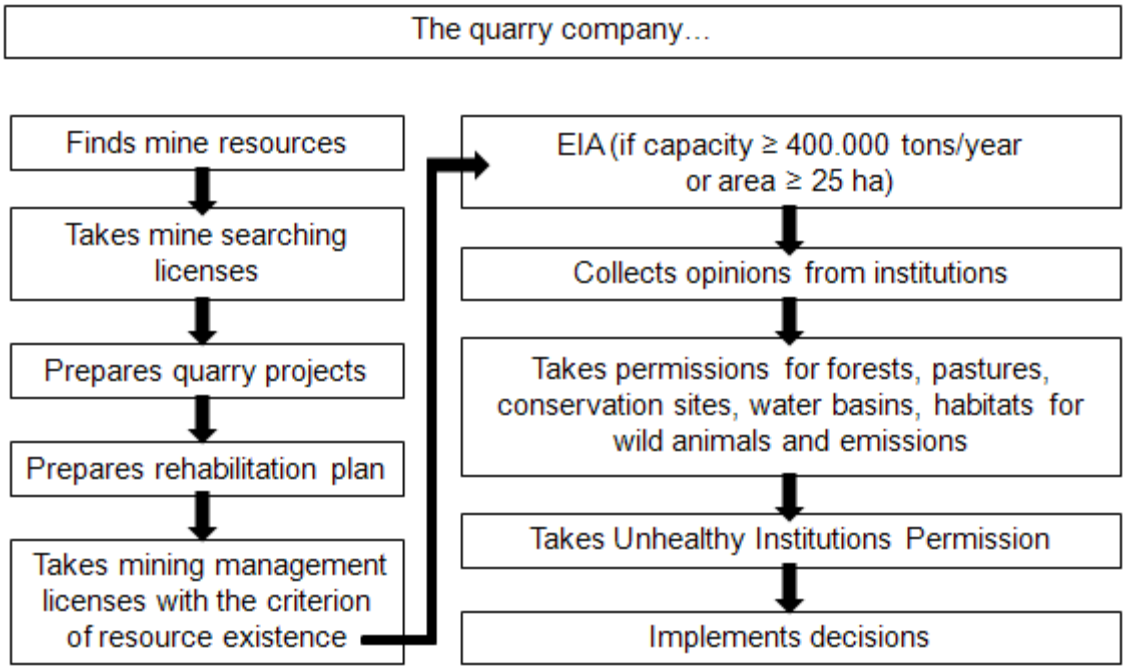

Figure 74. Site selection process of quarries in İzmir

4.4.2. An Overview of Conflicts in Site Selection Processes of Quarries in İzmir

Quarry conflicts in İzmir mostly happened in Belkahve before 2006 in which the protests in Germiyan and Yağcılar started (Figure 75). The conflicts about the quarries in Belkahve are solved with their transfer to a more acceptable location in 2010; however the conflicts in other locations continued. Quarries in some cases such as Yağcılar and Germiyan were stopped several times by court decisions and opened again by taking new permissions.

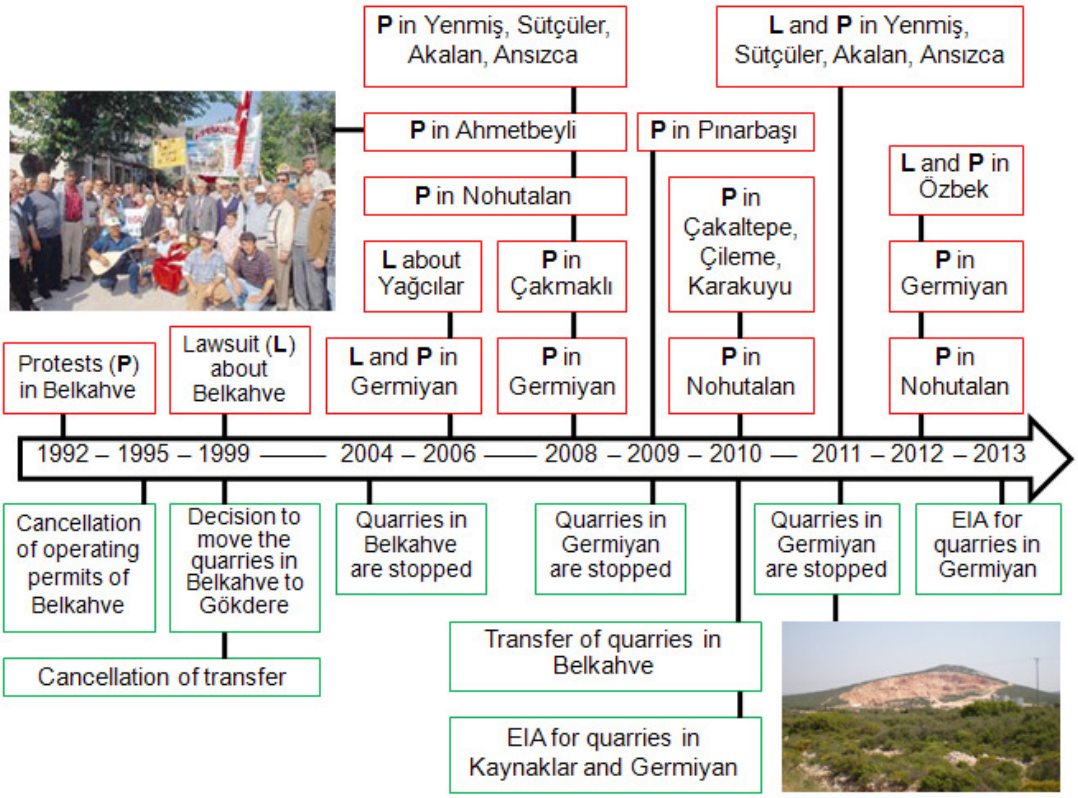

Figure 75. Timeline for quarry conflicts in İzmir

4.4.2.1. Findings of Document Analysis and Media Search for Quarry Conflicts

The news about quarry in İzmir in 2000 reported that the movements against quarries in İzmir started in 1992. First, the provincial government decided to close quarries in Belkahve, İzmir, but the ministry gave permission to them, so they were not closed. Then, the metropolitan municipality cancelled their operating permits in 1995. The area was declared as a first degree conservation site, but the activities of quarries could not be stopped. The municipality closed their roads; therefore some of the quarries stopped their operations. The provincial government went to court in 1999. The court decided to close the quarries within the boundaries of contiguous area. The existing quarries would be moved to Gökdere Village and there would be an organized industrial area for them. The villagers objected to the decision. Then, it was learned that the proposed area had been rented by a mining company before. Also, the EIA report could not be taken. The problems in the process remained unsolved and the amount of illegal quarries were increased. The governor told that they would solve the problems in

three months. A committee was established to solve this problem. The committee included the Directorates of Forestry, Environment and Health, the metropolitan municipality and the owners of quarries (H, 31.12.2000).

Another village in which villagers complained about quarries was Germiyan Village in Çeşme, İzmir. The villagers and headman reported their complaints to various institutions including Provincial District, the directorates of health, environment and agriculture. They complained about dust and smoke produced by the quarry which was 300 meters far from the village. They told that there were power cuts depending on dust on electricity lines. They added that the dust and smoke affected their olive groves, fruit and vegetable gardens badly. The villagers were afraid of quakes occurred by the explosions in the quarries. They told that their agricultural products were at pollution risk and their health was threatened (M, 03.01.2006).

The owners of quarries in Bornova explained that the people who did not want them were right and that they also did not want to be near to the city center because of pollution effects. They told that the problems started in 1970s and then Gökdere in Buca was proposed as a new location in 1999, but then it was assigned as a conservation site and therefore the problems could not be solved. They thought that a commission including representatives from municipalities, universities, chambers should have decided a new location for the quarries in Bornova. They told that they would leave the area after forestation and rehabilitation (M, 17.10.2006).

The Ministry of Environment and Forestry gave a report stating "EIA is not needed" to two areas for permissions to quarries in Yağcılar Village in Urla in 2005. One of them was 75 ha and the other was 12.2 ha. The villagers and an environmentalist lawyer went to court with an aim of stopping the decision and the court decided to cancel the permissions, because the areas were in the 1st degree natural conservation sites in forest area. Villagers told that there were endemic species such as sandalwood and water sources in the proposed area and that they would not allow the quarries to destroy the forests (H, 28.11.2006; M, 28.11.2006).

The Minister of Environment and Forestry told that there were always need for quarries and mines. The areas allocated for quarries would not be a matter of private ownership and they were used for only mining functions and left after rehabilitation. He added that the decisions about giving permissions to these areas were given with advices of local environment committees (H, 21.12.2006).

Villagers from Yenmiş Village near Spil Mountain in Kemalpaşa met with neighboring Akalan, Sütçüler, Ansızca and Damlacık Villages to protest the proposed quarries in Yenmiş Village. They showed banners writing "We will not give our mountains with thyme odor" and "You always come here for votes, where are you now?". The headman said that "the quarry owners told that they paid 35000 YTL for trees and so they had the right to cut them" and added that they did not want quarries (H, 26.02.2008).

A mining firm took all permissions for a quarry in 96 hectares of area in Ahmetbeyli Quarter in Özdere from ministries but could not take permission from Özdere Municipality. The permission was not given because the area was near the organic farms and almost 500m far from Klaros Antique City. The firm went to court to get permissions. Meanwhile, the villagers met against the quarry and walked with banners. The headman explained the natural and touristic characteristics of the village. An archaeology professor working in Klaros also supported the villagers and opposed the quarries (H, 09.05.2008). A deputy gave a question proposal to the Grand National Assembly of Turkey about this quarry and asked how the ministries gave permissions and EIA reports to the proposed quarries in agricultural and touristic area with 1st degree conservation site (H, 30.05.2008).

There was an increase in the amounts of quarries in the whole country after the change in the mining law in 5 June 2004. A deputy proposed a research for taking precautions to the problems resulted by quarries. The research would be about various topics including the responsible institutions giving the location decisions, the amount of destroyed forests, the amount of compensations paid by the quarry owners, the amount of court decisions about cancellation of the location decisions, the reasons of the cases, the amount and locations of the illegal quarries and the difference between the amounts of rehabilitation projects before and after the mining law (H, 19.06.2008).

Villagers from Nohutalan Village in Urla met against a proposed quarry 75m far from olive groves with organic license, 200m from residential area, 150m from historical church and 200m from greenhouses. The headman told that they did not know about the quarry in the EIA process. Villagers were afraid of losing their organic production. They told that the quarries were inappropriate to the Law about Rehabilitation of Olive Production and Vaccination of Wild Olives (No. 3573) which restricted the land uses such as industries, thermal plants, mines in 3 km buffer from the olive groves (H, 18.09.2008). A new question proposal was given to the Grand National

Assembly of Turkey by a deputy asking how many quarries could get permissions in Urla and which precautions were taken (M, 01.10.2008).

Another opposition to quarries was in Çakmaklı Village in Aliağa. The area of the proposed quarry was the pasture of the village, so the villagers tried to change the permission decisions by applying to Aliağa Municipality, but they could not manage to stop the process, because the mining firm had the report 'EIA was not needed' (H, 23.10.2008).

The following movement against quarries was from Germiyan Village in Çeşme. While the villagers were waiting for the decision to close the exiting quarry in the village, the mining firm got the new permissions for expanding the area. After that the villagers organized a meeting and walked with banners and flags in the city center of İzmir. An assistant professor from Sociology Department of Ege University supported the villagers and emphasized the bad affects of quarries to villagers (M, 09.11.2008).

The existing quarry in Pınarbaşı in Bornova was the reason of the following protests. Almost 150 people living near the quarry walked with banners writing "We don't want to breathe poison", "No to quarry in front of our home", "Clean Pınarbaşı", "Governor, hear us!", "We don't want education in poisonous environment", "We don't want to be cancer" and "Don't poison our children". One of them said that "the quarry should be 7km far, but it is 300m far from the houses" (Figure 76) (H, 26.09.2009).

West Urla Villagers Environmental Protection, Beautifying and Developing Association organized a meeting and put a black wreath in front of İzmir Regional Directorate of Forestry. They called attention to the existing quarry in a 1st degree conservation site in Uzunkuyu, Urla. They wanted the quarry to be closed and the area to be rehabilitated (M, 19.11.2009).

Figure 76. Quarries protests in Pınarbaşı
(Source: H, 26.09.2009)

A flood was happened in Balıklıova in Urla. It caused damages in a stone bridge, 30 houses, two schools, gardens, animal shelters and roads. The headman told that the reason of the flood was the stones put on the river by the nearby quarry (H, 16.12.2009).

The existing quarries in Belkahve in Bornova were transferred to another place which was decided by the metropolitan municipality and mining firms. All firms left the area after forestation and rehabilitation process (M, 08.01.2010).

7th Sentence of the Mining Law (No. 3123) was stopped and the process of its regulation was delayed. Therefore, the problems about mining permissions and licenses were increased. Aegean Mining Exporters Union and Turkey Marble, Natural Stone and Machines Producers Union called attention to these problems (YA, 17.01.2010). They informed the mining commission of the Grand National Assembly of Turkey (YA, 25.03.2010).

Villagers from Nohutalan Village in Urla won the legal process about the quarries near their licensed organic farms. First, the court decided to stop the quarries, and then the license of the mining firm was cancelled. The villagers told that the aim was to protect the environment and that their village was not suitable for quarry location (M, 30.01.2010; H, 31.01.2010).

The mayor of Buca Municipality applied for the quarry license and EIA report for an area in Kaynaklar in Buca. He told that they would not use the area with quarry function. They applied for the license to obstruct the possible private firms to get license and use the quarry (YA, 31.03.2010).

The mayor of İzmir Metropolitan Municipality visited the villages in Kemalpaşa and listened to the villagers about their problems (Figure 77). The villagers asked about the proposed quarry in Yenmiş Village. The mayor said that they did not permit to new quarries within the boundaries of metropolitan municipality and that they controlled and transferred the existing quarries out of the city (M, 27.04.2010).

A group of villagers protested the proposed quarries in an area between Karakuyu, Çileme and Çakaltepe Villages in Menderes (Figure 78). The proposed area was located in a protection zone which was 3 km far from Tahtalı Dam Conservation Basin. Villagers were afraid of a decrease in the quality of their agricultural products after the permission to quarry (M, 15.11.2010).

Figure 77. Visit of the Mayor of Metropolitan Municipality to villages of Kemalpaşa
(Source: M, 27.04.2010)

Figure 78. Quarry protests in Menderes
(Source: M, 15.11.2010)

The metropolitan municipality transformed an ex-quarry to a waste transfer station in Zeytinalanı in Urla (Figure 79) (YA, 29.12.2010; M, 30.12.2010).

Figure 79. A quarry transferred to waste transfer station in Zeytinalanı
(Source: left photo YA, 29.12.2010; right photo M, 30.12.2010)

The Minister of Environment and Forestry proposed the use of ex-quarries as new solid waste landfills (YA, 02.04.2011). The mayor of the Metropolitan

Municipality told that they would use ex-quarries as disposal of sand and ash after the decomposition of the waste in a proposed solid waste disposal facility in Taşkesik, Torbalı (YA, 05.04.2011). The ex-quarries would also be used for disposal of the sludge including heavy metals which was extracted from the ground of İzmir Gulf in cleaning process (22.04.2011).

It is claimed that the quarry firms got EIA report without informing the villagers in Sütçüler and Akalan Villages in Kemalpaşa. Villagers opposed to the decisions locating quarries near their cherry gardens, olive groves and stone pine nurseries (M, 06.05.2011). There were six new quarry decisions in Kemalpaşa villages. They were proposed to meet the stone needs of the new İzmir-İstanbul Highway. Villagers from almost seven villages started movements and went to court (M, 30.05.2011). Each of these quarries would be in 100 hectares of area and would have 150000 tons of capacity (YA, 15.06.2011). İzmir Bar went to court with an aim of cancellation of the location decisions of these quarries which did not have EIA reports (H, 15.06.2011).

The activity of the existing quarry in Germiyan Village in Alaçatı was stopped twice by court decisions. Almost 30 villagers won the legal process in which they went to court with an aim of cancellation of the EIA report of the quarry (YA, 23.06.2011).

The Union of City Councils of İzmir decided to recommend local governments to transfer the existing quarries in the city center to out of the city (M, 26.07.2011).

The ex-quarries came to the agenda again. The Provincial Special Administration gave permission to a mining firm for one year in the ex-quarries in Belkahve, Bornova. The mayor of the metropolitan municipality criticized this decision and told that the ex-quarries were cleaned and should be kept clean (YA, 15.09.2011).

The Metropolitan Municipality decided to use quarries in northern part of the city as disposal of sand and ash after the decomposition of the waste in the proposed solid waste disposal facility in Menemen (YA, 27.10.2011; 12.01.2012).

Almost 150 villagers from Nohutalan and Germiyan Villages came together to protest the quarry located between their villages near Urla-Çeşme Highway (Figure 80). They walked with banners and asked how the quarry got permission in an area with agricultural lands, olive groves and 1st degree conservation site. They also asked about the emergency problems after explosions near the highway (M, 12.02.2012).

Figure 80. Quarry protests in Nohutalan and Germiyan
(Source: M, 12.02.2012)

The headman of Özbek Village went to court with an aim of cancellation of the license and the EIA report of the quarry in their village. The quarry was located 700m far from the village square and 400m from the water sources of the village (M, 16.02.2012). Almost 2000 people including villagers, nongovernmental organizations and representatives of political parties came together to protest the quarry in Özbek (Figure 81). They walked with banners and flags and shouted slogans. The head of Özbek Environment Platform claimed that there was an antique settlement in the area. He added that the quarry would damage drinking water, tourism and fishing in the village (YA, 04.03.2012).

Figure 81. Quarry protests in Özbek
(Source: left photo M, 16.02.2012; right photo YA, 04.03.2012)

The headman of Yeniköy Village applied to various institutions to stop the activities of existing quarry between Yeniköy and Kuyucak villages in Menderes, but he could not get any answers. The quarry damages the environment, roads and health of villagers. As the mining firm got the license and EIA report, the villagers could not do anything against the quarry (YA, 29.06.2012).

4.4.2.2. Interview Findings for Quarry Conflicts

There are perceptions of the 38 interviewees in the interview research of quarry cases.

The stage in which the interviewee participates: The questions about quarries were asked to the people from various groups participated in various stages (Figure 82). Interviewees from private sector said that they participated in site selection process. Provincial Directorate of Environment and Urbanism and Chamber of Environmental Engineers gave opinions in site selection process. Special Provincial Directorate took place in conflict resolution process. The interviewee from university said that he worked as a court expert in conflict and resolution processes. Municipalities and headmen stated that they were not included in the site selection process. The interviewee from Kemalpaşa Municipality said that they were responsible of giving working permissions to quarries before the regulations were changed. He told the process in which they rejected the permission applications of quarry companies in Yenmiş case in 2008 because of the proximity to olive graves.

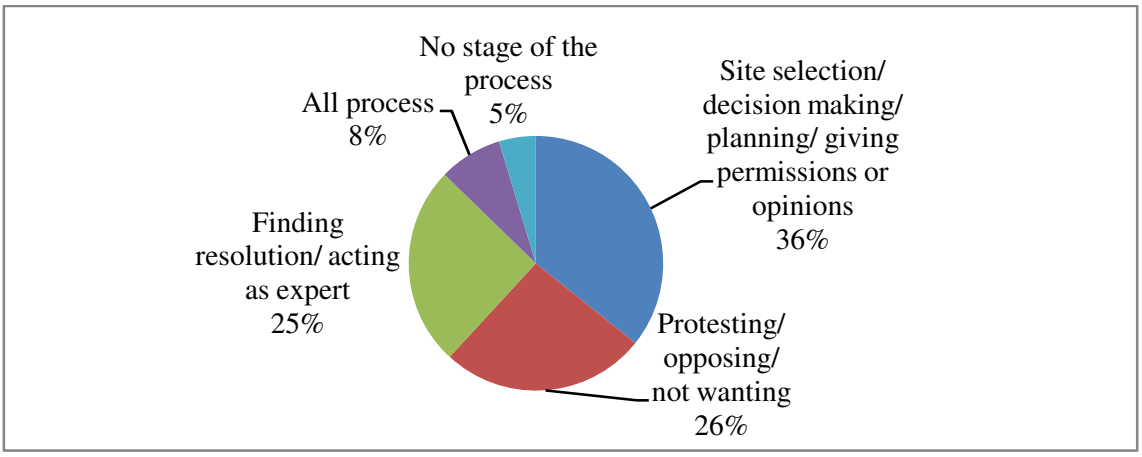

Figure 82. Stages of the process in which the interviewees of quarry case participate

Parties taking part in conflict process were all interviewed headmen, all interviewed municipalities and NGOs. The interviewed academician from Mine Engineering Department told that he participated in the process of transferring quarries in Belkahve. It included both site selection and conflict resolution processes.

How the sites are selected by whom: This question was answered in detail (Figure 83) by interviewees from Special Provincial Directorate, Provincial Directorate of Environment and Urbanism and private sector. These details included the application of various mining, searching and working permissions, the collection of opinions of related public institutions, taking EIA reports or EIA not needed reports depending on capacities, organizing public meetings, making investments and control processes. The interviewees giving details about the process stated that the first mining permissions were made with the only criterion of the existence of the mine resources without considering environmental or social factors.

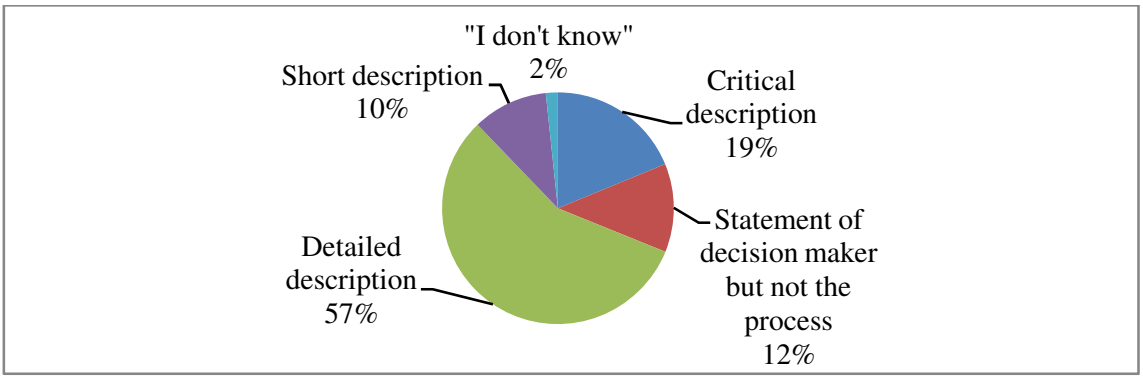

Figure 83. Answers to the question asking how the sites are selected by whom in quarry case

Headmen either did not know or criticized the lack of consideration of local people in the decision making process. A headman from Urla criticized the top-down decisions given “from Ankara”. There was also false knowledge about responsible institution. For example, a headman from Kemalpaşa supposed that municipalities gave decision. What he knew was the previous procedure.

Chamber of City Planners told that the demands of private sector directed the process without serious assessment of environmental impacts. Chamber of Environmental Engineers emphasized the role of regulations directing the site selection processes and told that both private and public institutions evaluated the sites in these kinds of decisions. On the other hand, Karaburun Municipality pointed out the problems about regulations. He told that the mining companies started their investments without EIA reports by showing their capacities lower and they continued their production in

several smaller quarries in a big area rather than one large quarry to get rid of the EIA process.

Whether the site selection was right: 45 percent of the interviewees found the sites wrong, while only three percent of the interviewees found the sites of quarries right (Figure 84). The opinions finding the site selections wrong belonged to Karaburun City Council, all interviewed headmen and all interviewed municipalities except the interviewee from Menderes Municipality who said that he did not have enough knowledge to criticize the decision. Besides, Chamber of City Planners found the site selections "bad". The interviewed academician stated that they would be better if they were far from settlements.

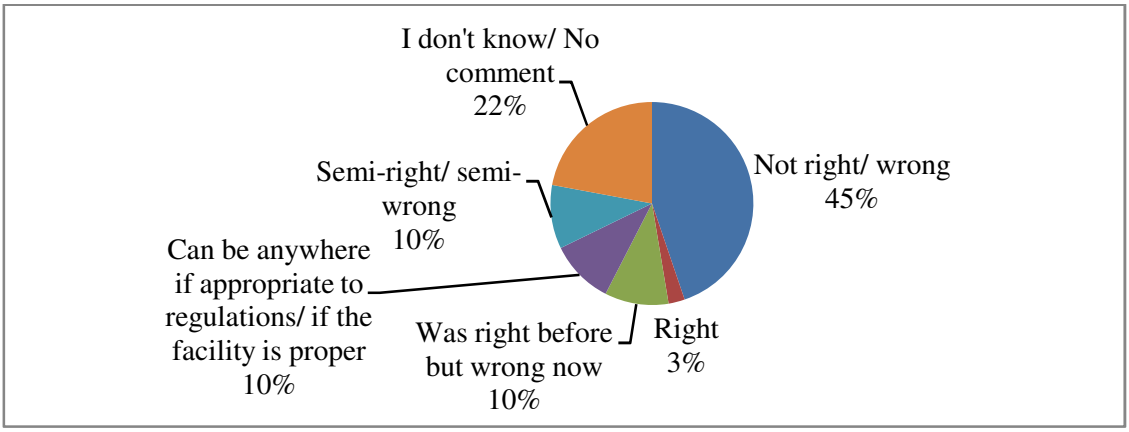

Figure 84. Perceptions of interviewees on rightness of the site selection in quarry case

Opposing to critiques, an interviewee from quarry company located in Pınarbaşı, Aliağa and Nohutalan told that their quarries were appropriate to site selection criteria defined by public institutions. He and another interviewee from quarries in Belkahve stated that the mines and quarries had to locate in lands where the resources existed. One said that "It (*site selection*) must be right, because raw material is here. You can not open in another location. It has to be here because the reserves are here." Moreover, an interviewee from Provincial Directorate of Environment and Urbanism told that the locations were right if they were appropriate to regulations.

Success of the site selection process: The negative opinions about the process were also more than positive ones in quarry cases (Figure 85).

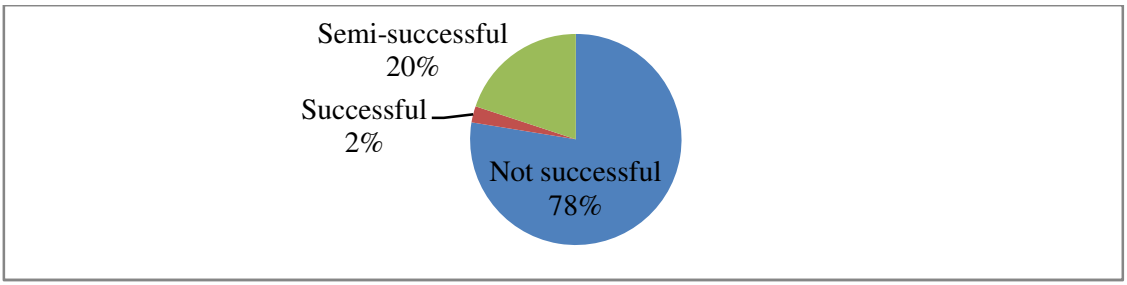

Figure 85. Perceptions of interviewees on success of the site selection process in quarry case

The parties finding the process unsuccessful were headmen, NGOs, public institutions, municipalities and universities. Their critiques included the exclusion of local people and their interests, the permissions given with the only criterion of resource existence and the top-down decisions given "from Ankara".

On the other site, one interviewee from a mining company said that the process was successful; the expert from Special Provincial Directorate told that it was semi-successful; and the environmental engineer from Provincial Directorate of Environment and Urbanism stated that it was the only participatory process. The interviewee from private sector who found the process successful told that

> It is successful because, I will say objectively, if the institutions leave mine owners alone (*in the site selection process*), mine owners will consider economic location; but as the other public institutions and organizations were partnered, the best location is selected for both providing public interests and preventing harms to people... The right method is that, as all institutions participate. Otherwise, there will be abuses.

Opponents/ Proponents: The interviewees listed opponents as local people, villagers, headmen, NGOs, municipalities, politicians, environmentalists, lawyers, other mining companies as commercial competitors and people expecting personal and material gains (Figure 86). Two headmen described the protesters as people with a variety including both young and old and both men and women. City Council and Municipality of Karaburun stated that all people living in the Peninsula were against quarries.

The answers of this question in Çakmaklı case were different than other cases in terms of varieties between municipality and headman. Aliağa Municipality told that the protesters were only a few of local people expecting to get money, whereas the headman told that the entire village was protesting the quarry.

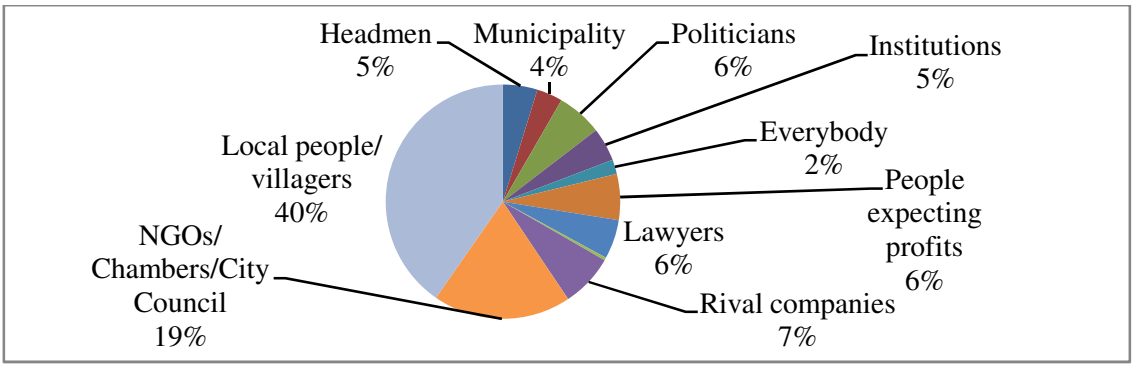

Figure 86. Opponents in quarry case

The protesters in quarry cases were **local** according to İzmir Bar Association, Kemalpaşa and Urla Municipalities, two headmen. Local protesters in Ahmetbeyli were supported by people from other villages. The headman was told to be the organizer of meetings. On the other hand, mining company from Pınarbaşı, Aliağa and Nohutalan said that the rival companies organized villagers. Another interviewee from private sector also told that mining companies existing in a site provoked environmental groups and local people to be against other proposed mining companies in that site. All movements were organized according to İzmir Bar Association whereas some of them were not organized according to Provincial Directorate of Environment and Urbanism.

The **proponents of quarries** were said to be the investors (49%), institutions giving permissions (40%) and people making use of job opportunities (5%) (Figure 87). Some local people taking advantage of job opportunities supported them according to the interviewee from private sector in Pınarbaşı, Aliağa and Nohutalan quarries. Also in Menderes, the people expecting temporal economic gains from transportation were seen as supporters. Some headmen told that nobody was supporting quarries in Pınarbaşı, Gökdere-Kaynaklar, Çakmaklı and Ahmetbeyli.

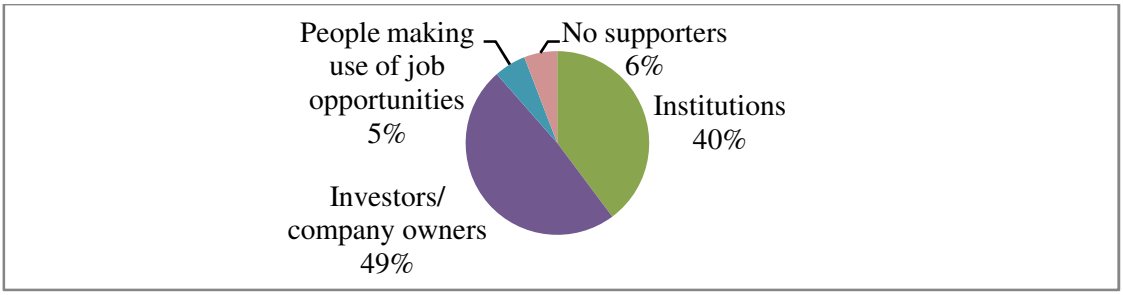

Figure 87. Proponents in quarry case

Amount of people in the conflict process: There was a variety in answers to this question (Figure 88).

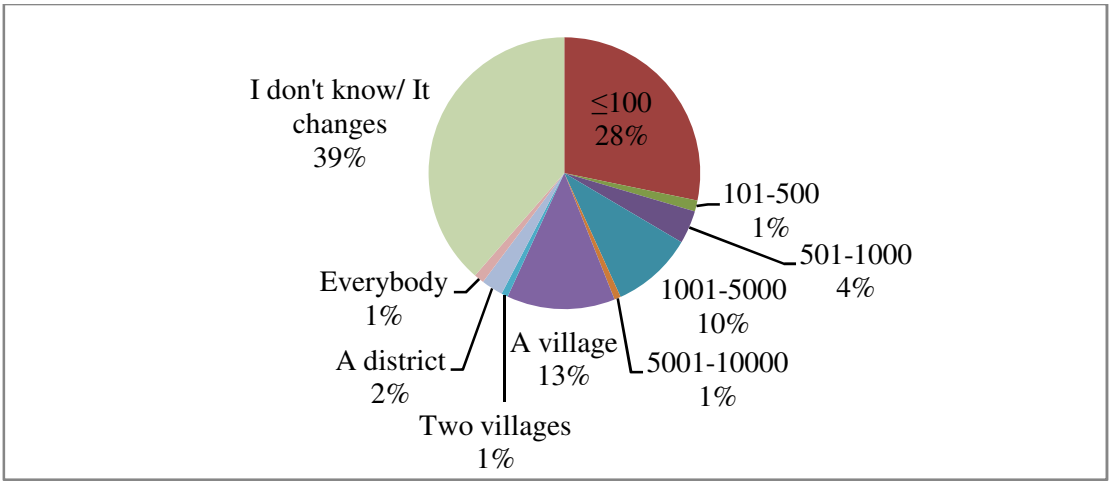

Figure 88. Amount of opponents in quarry case

Answers varied due to cases according to Provincial Directorate of Environment and Urbanism. In Karaburun and Mordoğan cases, all people in Peninsula were protested quarries according to Municipalities, City Council and a headman. In Menderes cases, municipality said they were about a few thousands of people; the headman of Ahmetbeyli told that there were 1500 protesters and the headman of Çakaltepe gave an amount of 750 protesters. In Belkahve case, the interviewee from university told that there were 400 local people in the public participation meeting of an EIA process. The interviewee from mining company in the same case said that there were not more than 5-10 opponents to their quarries. In Gökdere-Kaynaklar case, the amount of protesters stated by Bornova Municipality was thousands whereas the headman said that two villages were opposing to the quarries. In Kemalpaşa, the municipality said that 5000 people were protesting; however, the headmen gave few amounts. The headman of Çambel told that he collected 552 signatures from 980 population and the headman of Yenmiş told that all 850 population was protestors. All population was also stated as protesters in Yağcılar, Nohutalan and Özbek villages by headmen. Similarly, the protesters in Germiyan were 95 percent of the population according to the headman. In Pınarbaşı, the headman said that nobody wanted the quarries but 30 percent of them participated in protests. On the one hand, the headman

in Nohutalan said that all villagers were opposing to quarries and at least 100 people participated in the meetings; on the other hand, there were 30-35 people in movements against their quarries according to mining company. The distinction between the amount given by Aliağa Municipality as 5-10 people and the amount given by headman as all villagers was also sharp.

Reasons of being opponents: Common reasons stated in most of the interviews with various parties for various cases were proximity to settlements (Figure 89), dust, noise, loss of agricultural land, loss of forests, decreasing the quality of life, environmental problems, health problems, pollution and explosions (Figure 90).

Figure 89. Proximity of the quarry to the village in Germiyan
(Source: An interviewee from Germiyan)

Proximity of quarries to olive groves was also seen as a reason of opposition in Germiyan, Urla, Karaburun, Mordoğan and Kemalpaşa cases. Proximity of quarries to the antique city in Ahmetbeyli was also a reason of opposing. Another reason was traffic problems for Menderes, Kemalpaşa, Bornova and Nohutalan cases. Also, two headman and Menderes Municipality told that the trucks of quarries damage the roads. Visual pollution was also told in interviews about Germiyan, Karaburun, Mordoğan and Menderes cases. In Germiyan case, there were other crucial damages depending on proximity of the quarry to the village. Some examples stated in interviews were that

> It (*the quarry*) damaged more before 2004. Stones were coming to the village (after explosion). One demolished the wall of a house and went inside. They (*the stones*) were closing the road… It destroyed. When they exploded dynamites, the stones were coming near the school… Now (*when they explode*) we suppose that there is an earthquake. First it is announced everybody to open their windows not to be broken.

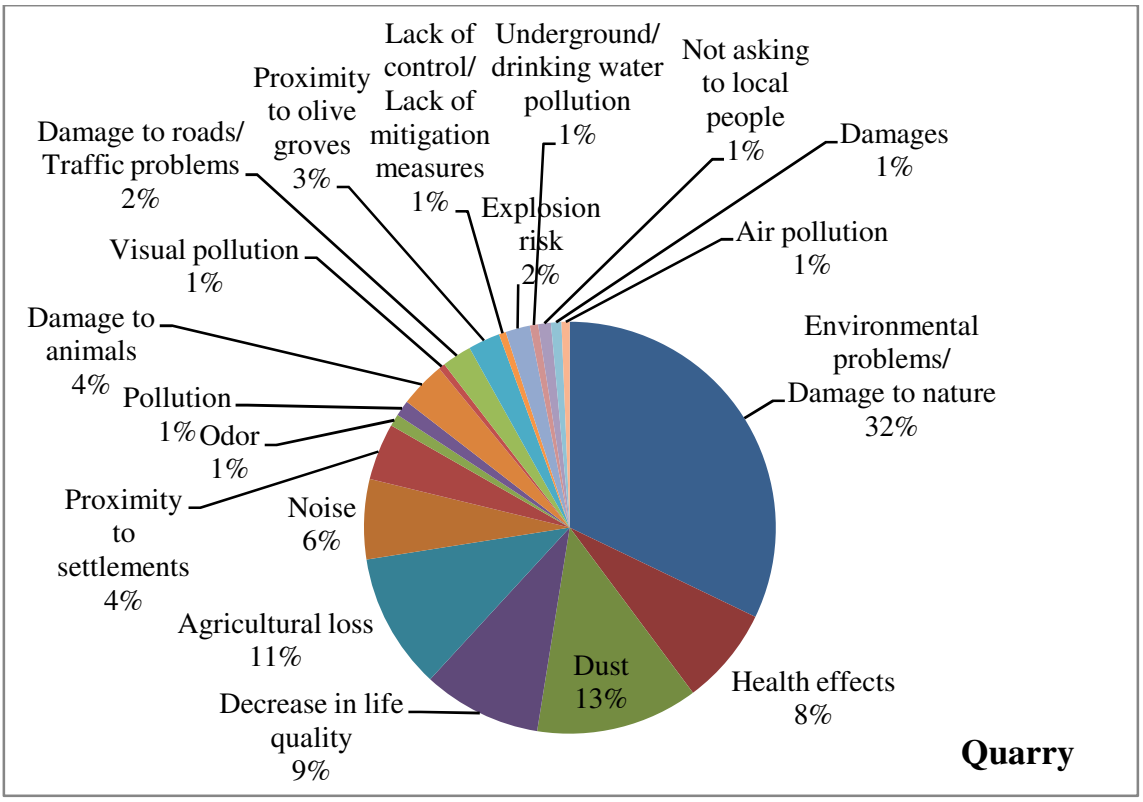

Figure 90. Reasons of being opponents in quarry case

In Yağcılar case, the damages of quarries were also listed as increasing cancer, making it difficult to breathe, damaging plants, animals, bees, drinking water resources and causing electrical energy cuts. In Kösedere, the complaints included its effects to animals, especially goats, water resources and cancer risk. An interview recorded that quarries in Kaynaklar were not wanted because of organic farming, natural environment including seven plane trees of 1000 years old and the tourism activities in the village.

Interviewees from municipalities were suspicious about the quarries. Bornova Municipality told that nobody knows if they considered wind and sun directions. Besides, Kemalpaşa Municipality said that one permission would increase the possibility of more other proposals of quarries and their amounts and capacities would increase.

Underlying reasons to be opponents: They were stated as political reasons, media, personal and economic interests, bad conditions of existing examples, lack of knowledge, lack of trust and prejudice (Figure 91).

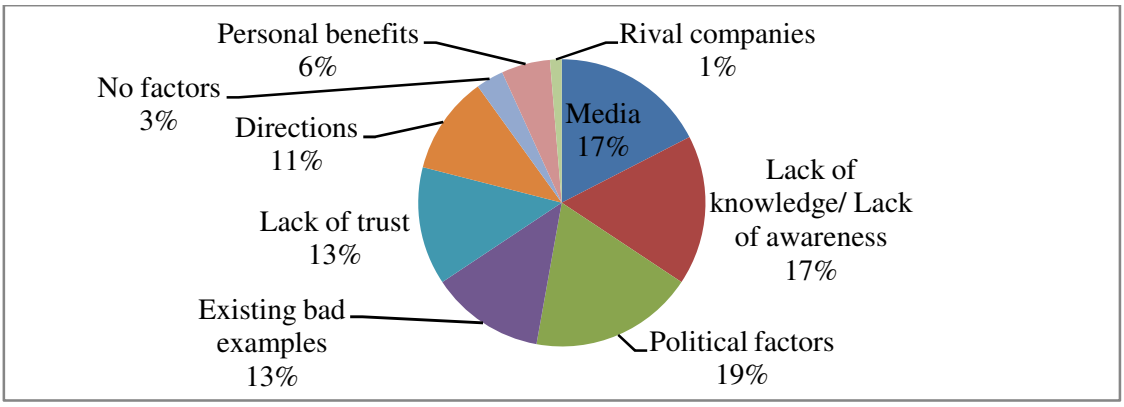

Figure 91. Underlying reasons of being opponents in quarry cases

Interestingly, a headman told that the refusal of the company to pay the water bills was also a factor affecting their protests. Interviewees from private sector insisted on the effect of rival companies on protests. Headmen from seven villages, Municipalities of Karaburun and Mordoğan, İzmir Bar Association and Karaburun City Council said that there were no reasons other than the environmental problems in opposition to quarries. Although the a headman told that there were no underlying reasons in their opposition, she told about her distrust to the quarry owners with these words

> There is a dilemma and hypocrisy here. They were going to extract stones from here by showing a site from back for the exact quarry. It is 200 meters to the village as the crow flies. If you give them an inch, they will take a mile. They say they will work there, (*but*) they can work closer. How can I trust?

Lack of trust and prejudice was also experienced in EIA meetings of quarries in Belkahve according to the interviewed academician. He told that the local people approached the experts from university as they were from miners' "side".

Whether the site selected or its decision making process was the reason of opposing: The reasons of opposition were both wrong locations and wrong process according to 50 percent of the interviewees, only wrong locations according to 23 percent of them, wrong process according to 23 percent of them and none of these reasons according to four percent of the interviewees (Figure 92). Interviewee from university also added that there were never wrong locations for mines, because they had to be where the resource was.

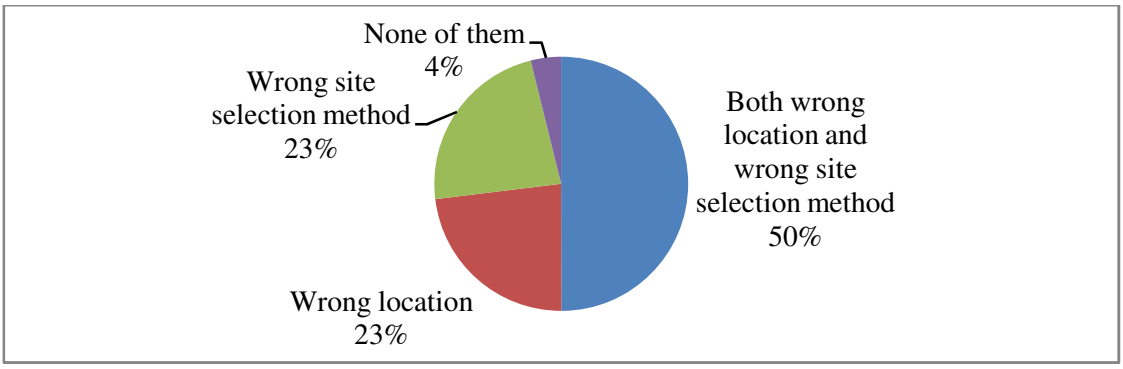

Figure 92. Whether the site selected or its decision making process was the reason of opposing in quarry case

Reasons of not opposing: When the interviews asked about the people who did not oppose to the quarries, the interviewees from İzmir Bar Association, the municipalities of Menderes and Karaburun and eight headmen said that there were not any people not opposing (Figure 93).

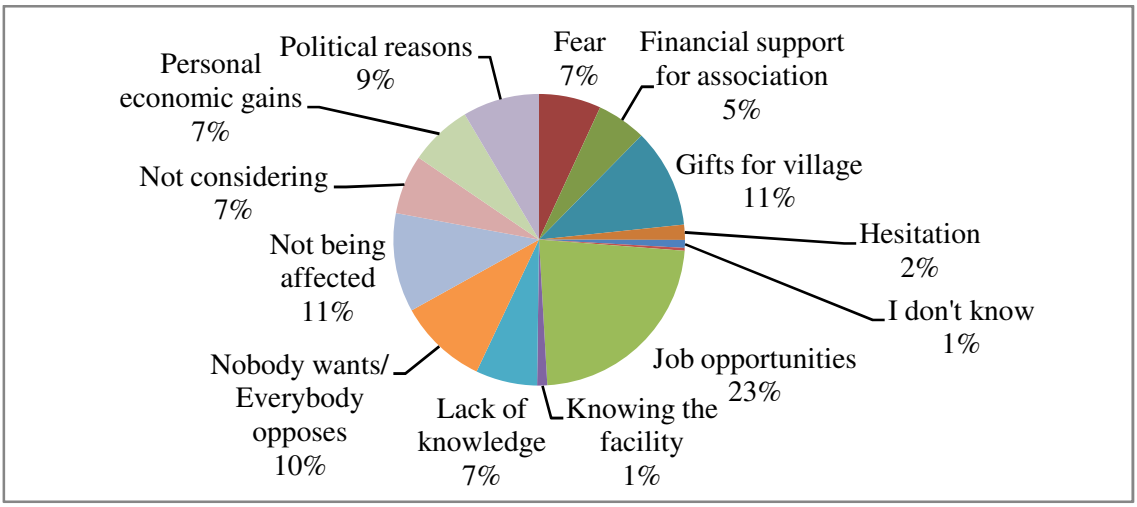

Figure 93. Reasons of not opposing in quarry case

On the other hand, seven interviewees from public institutions, private sector, municipalities, NGOs and university told that job opportunities may be a reason not to be opponents. Mordoğan Municipality and Karaburun City Council stated that lack of knowledge was another reason of not opposing. Besides, Special Provincial Directorate and two interviewees from private sector told that the investments and helps to the services including schools and mosques in the villages made some people not to oppose

to the quarries. Moreover, people expecting or getting personal or material benefits did not be against the quarries according to Provincial Directorate of Environment and Urbanism, Mordoğan and Aliağa Municipalities and two headmen. An expectation of value increase in their real estates could be another reason according to Mordoğan Municipality. Furthermore, the people who were not affected from the disadvantages of quarries would not be opposed to them according to university and Provincial Directorate of Environment and Urbanism. Urla Municipality gave an example from Balıklıova in which a quarry was not protested by local people despite its bad conditions, because it was far from settlements.

Apart from having no problems and having benefits, some people were not opposing because of factors including fear, hesitation and lack of consideration. Fear factor was told by Karaburun City Council, two headmen. Hesitation and lack of consideration were said for Karaburun and Pınarbaşı cases. In addition, Urla Municipality told that uneducated people were not interested in these problems and did not oppose to unhealthy land uses.

Ways of showing response against waste site decisions: Most of these ways were similar to those in waste disposal and fishery cases. Interviewees said that using media (Figure 94), organizing public meetings, going to court, writing petitions, finding an environmentalist lawyer, closing roads to quarries and contacting with chambers and NGOs (Figure 95).

Figure 94. Media invited to the protests against quarries in Germiyan
(Source: An interviewee from Germiyan)

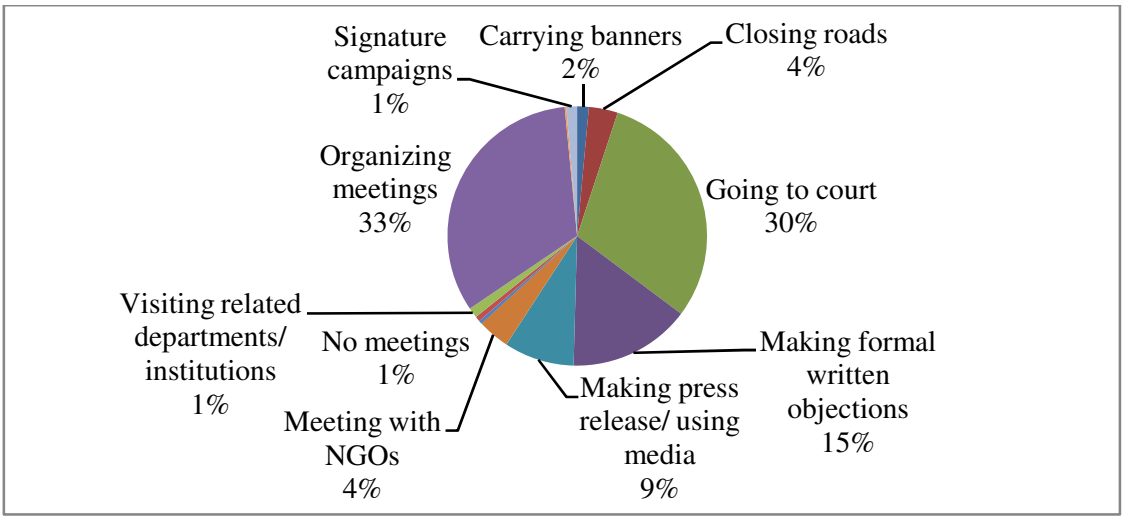

Figure 95. Ways of showing opposition in quarry case

Besides, signature campaigns were told as a way of showing responses for Nohutalan, Kösedere, Pınarbaşı, Gökdere-Kaynaklar and Çambel cases. Showing banners and shouting slogans in protests were other ways in Nohutalan, Karaburun, Pınarbaşı and Çakmaklı cases. In Çakmaklı, villagers came together with other villages. Local interviewees in Kaynaklar and Özbek established civil initiatives. In Germiyan and Yağcılar cases, local people protested EIA meetings, wore a traditional scarf and made music with various instruments in meetings.

An interviewee from mining company told that villagers made protests by only shouting and showing banners but they were not conscious to go to public institutions and make legal complaints. On the contrary, local people from Yenmiş, Çambel and Germiyan went to District Governorship to tell their complaints about quarries. Local people from Germiyan went to Provincial Governorship and local people from Pınarbaşı went to Ministry to protest quarries. Besides, local people from Gökdere applied for conservation site decisions and they did not do mobilizations. Their applications were accepted and site decisions cancelled the quarry proposals.

Whether the movements had an effect on cancellations: There were both interviewees stating that the movements affected decisions and interviewees stating they had no effects (Figure 96).

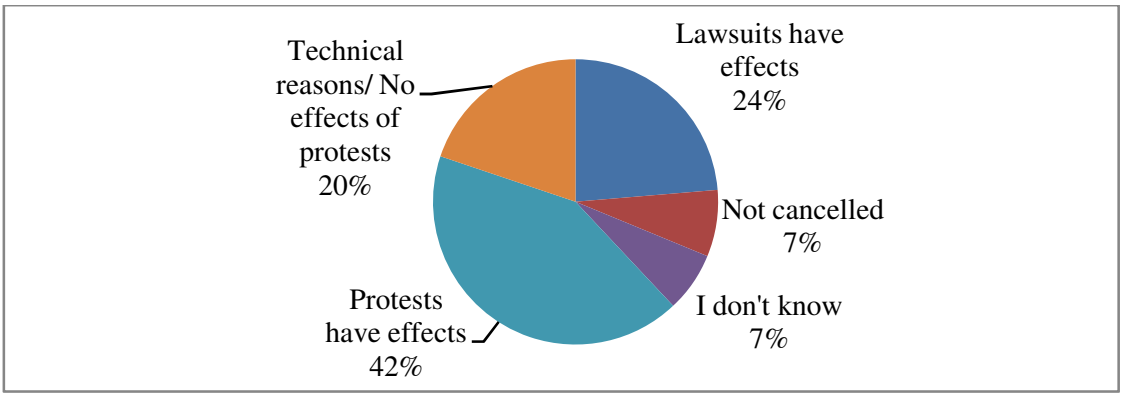

Figure 96. Effects of movements on cancellation of quarry decisions

In Kösedere local interviewee said that their opposition affected the cancellation of quarry decisions because the site was decided to be Special Conservation Area through their attempts. The conservation site decision in Ahmetbeyli was also a reason of cancellation of quarry decisions. Moreover, three headmen said that their legal applications stopped the quarry decisions. An interviewee from Provincial Directorate of Environment and Urbanism told that court decisions, legal applications and meetings taking place in media were effective in cancellation decisions. Another interviewee from this institution, İzmir Bar Association, Urla and Kemalpaşa Municipalities and two headmen told that local movements affected the closure of quarries. On the other hand, the reason of cancellations was seen as technical according to Special Provincial Directorate. The quarries in Germiyan and Özbek were stopped because of the law about olive groves. There were also cases in which interviewees said that the quarry decisions were not cancelled. These were Pınarbaşı and Çakmaklı.

An interviewee from university said that "Miners do not care movements; they get their powers from legal system… It is impossible to move back after making a big investment." An interviewee from a mining company had similar opinions: "There is no effect of movements. It will not be anywhere. There is no approach in anywhere that 'I will stop the investment because the people are making protests'." Another interviewee from private sector gave details about tricks and approaches of mining companies in this matter:

> The facilities of quarries and mines will never be abandoned. The unsuccessful company passes the license to another company. If the company getting the license is unsuccessful too then it passes to another one. In time, conditions change but the quarries are operated sooner or later. Producers pay 200-300 thousands of Turkish Liras to get permissions;

therefore, they make efforts to manage the work by main force. Even if their license is cancelled, they make another application for a license by making small changes in their boundaries again. The protesters change, laws change… They make it again by finding a way.

The process about Yağcılar case told by the interviewee from Special Provincial Directorate supported these explanations. He told that the quarry in Yağcılar was closed seven times and opened again eight times in the last five years. It was closed by court, but the company used political relationships and took permissions and EIA reports again by changing its boundaries according to him. What the headman said was similar. He told that they won in 10 courts and the quarries were opened again by finding a way.

Main subjects of the conflict process: The most stated conflict issue in the half of the interviews was environment. Dust, health problems, economic loss, loss of pastures and explosion followed this issue. Besides, noise, damage to roads, pollution, chemicals in Germiyan case; visual pollution in Yağcılar and Kemalpaşa cases; olive groves in Nohutalan, Özbek and Karaburun cases; proximity to settlements in Özbek and Gökdere-Kaynaklar cases; and damage to the water resources in Nohutalan and Özbek cases were other issues. Procedural issues of conflict process were said to be lack of participation and lack of information.

Whether there were people harmed: There were not any harmed people in conflict processes according to 13 percent of the interviewees (Figure 97). On the other hand, opposing people were harmed (12%) according to İzmir Bar Association, Chamber of City Planners and Provincial Directorate of Environment and Urbanism. Besides, Special Provincial Directorate said that there were opposing people tried to hurt public officers in EIA meetings.

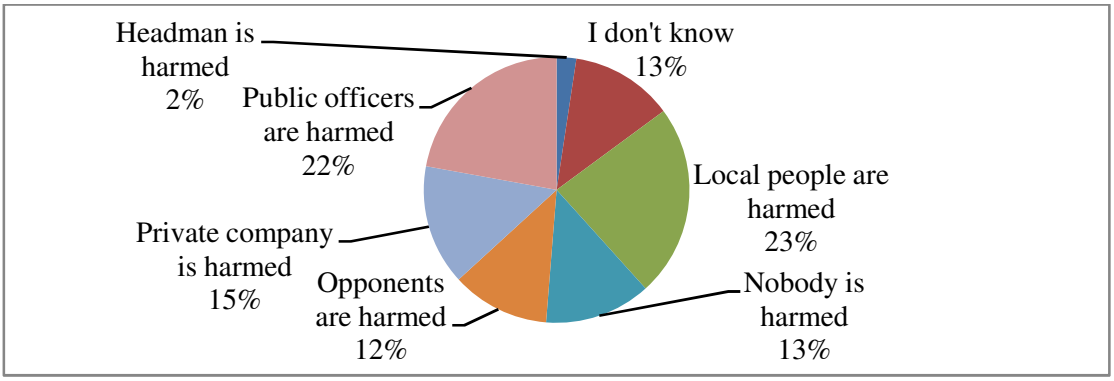

Figure 97. Whether there were people harmed in quarry case

The extreme answer was from a headman who said he was threatened by the mining company to be killed unless he stopped protests. Another headman said that being opponent to quarries made him a disliked man. Two other headmen told that psychology of local people especially of women was affected negatively. Another headman stated that he spent money for banners but did not care them. Interestingly, an interviewee from Aliağa Municipality told that there were no local costs rather the local people got benefits through conflicts in Çakmaklı case.

Apart from local costs of the conflict process, the mining companies had economic loss according to interviewees from private sector, university, Kemalpaşa Municipality and a headman.

Approaches of parties to the conflict resolution: Interviewees told that opponents had compromising (1%) and forcing (10%) approaches, decision makers had avoiding (1%) and forcing (12%) approaches and private companies had compromising (18%), forcing (2%) and avoiding (3%) approaches (Figure 98).

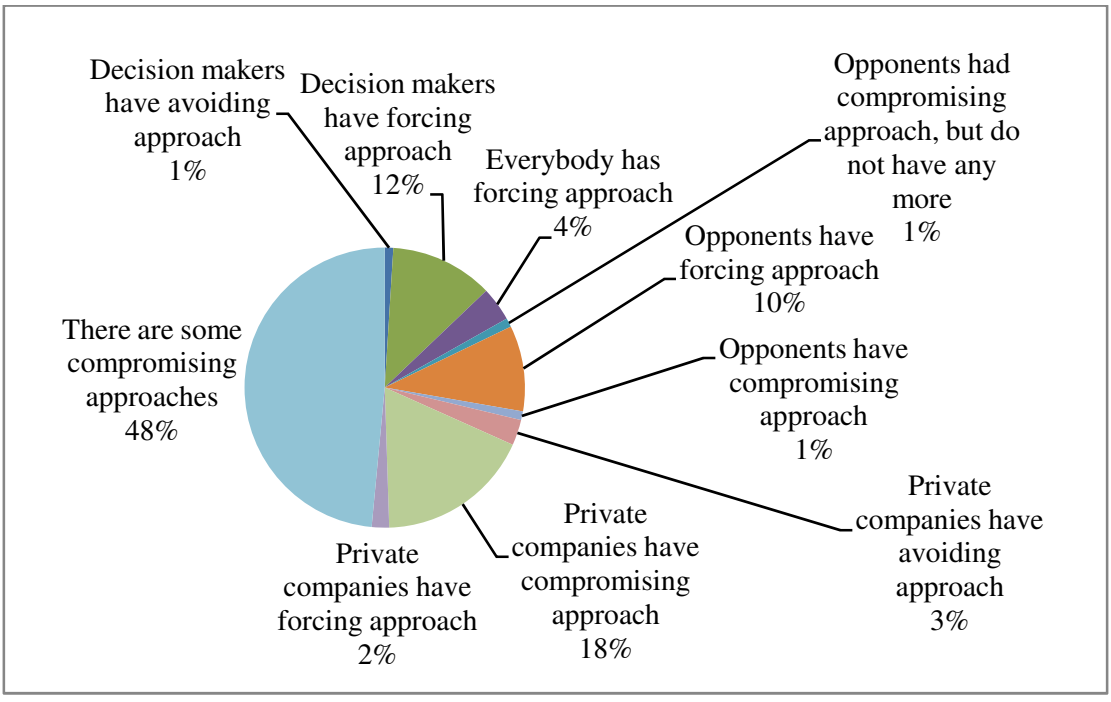

Figure 98. Approaches of parties to the conflict resolution in quarry case

Some interviewees described these approaches by generalizing and some others described them specifically for cases. One of the interpretations of common approaches was that there were compromising approaches and the Special Provincial Directorate

had a role of mediator in these processes. Besides, state was forcing according to İzmir Bar Association; there were various tactics according to Chamber of City Planners; the conflicting parties came together in some cases according to Provincial Directorate of Environment and Urbanism; and all parties had some collaborating approaches according to private sector.

> Parties approach to solutions as compromisers. Forcing attitudes are instruments for realizing compromises. When local people close the roads to hinder the facilities of mine quarries and prevent vehicles to work, bureaucrats and politicians intervenes and ensures the collaboration between local people and managers of mines and quarries.

As case specific approaches, six headmen said that local opponents absolutely did not want the quarries in any circumstances. In Kösedere case, Mordoğan Municipality said that the municipality acted as mediators in the conflict resolution process. There were both environmentalist groups who never wanted any facility and pragmatist groups who always wanted all facilities and the municipality were between these groups.

Two headmen complained that the mining owner or other responsible people from mining companies did not come to their villages. One of them showed his anti-compromising approach with these words "I will not allow quarries as long as I live".

On the other hand, in Çambel, it was stated that there was a meeting in which some "wanted" facilities such as view terrace and café were suggested to persuade the headman to accept quarries, but he rejected this suggestion. Similarly, it was told that the mining company in Yağcılar suggested to give crushed stones to the village and offered a dinner for the headman; however, all their offers were rejected too. It was also said that the lawyer of the mining company came to the village and pretended to be an opponent of quarries to get information from the headman. In another case, headman told that mining company pretended to be nice to them until they opened the quarries. There was also a case in which headman said that the mining company had a compromising approach but he rejected their offers; whereas the municipality told that the local people compromised with the company and got money from them and conflicts were solved.

All three interviewees from private sector told that miners would always try collaboration and did not want to work in a place where local people protested them; therefore they found solution ways such as giving jobs to villagers and making

investments to schools or mosques. On the contrary, Municipalities of Urla and Kemalpaşa told that there were no collaboration approaches of mining companies. The approach of private sector that "I will do this whatever you do, because I have permissions" provoked local people protesting quarries according to Kemalpaşa Municipality. Also, in Ahmetbeyli, it was said that the approach of private sector was hard and they threatened the headman but they gave up later.

What the decision makers did for conflict resolution: 32 percent of the interviewees including İzmir Bar Association, Mordoğan and Bornova Municipalities and five headmen told that nothing was done for solution (Figure 99). Three headmen told that the only attempt for solution was the cancellation of the quarry proposals. A headman in Kemalpaşa told that he invited public institutions to the village to persuade the local people if they wanted the quarry, but they hesitated to come in his opinion. Karaburun and Urla Municipalities also criticized decision makers not to come to see the sites.

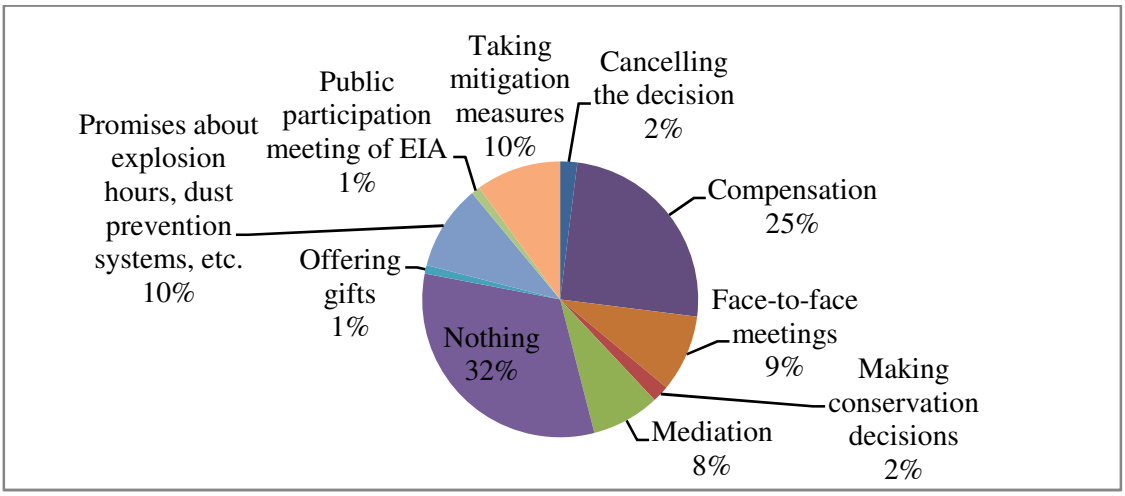

Figure 99. Attempts of decision makers for conflict resolution in quarry case

Other interviewees pointed out some attempts for solution. Special Provincial Directorate told that they tried to solve problems by acting as mediators in conflict processes between companies and local people. Also, an interviewee from Provincial Directorate of Environment and Urbanism told that they had a role in solutions.

An interviewee from private sector said that decision makers made face-to-face meetings for collaboration they offered help and collaboration was managed at the end. A distinction between answers of municipality and headman was seen in the interviews

of a case. Municipality said that the company made face-to-face meetings with the local people and realized their wants. On the contrary, the local interviewee said that the company had a compromising approach but they did not accept their offers. Unaccepted offers of the mining company were told in interviews about two cases. Besides, the sites were decided to be conservation zones in Karaburun, Kösedere and Ahmetbeyli cases and this was seen as a solution.

In Pınarbaşı case it was told that the company promised to decrease the amount of dust produced in quarries. An interviewee from a mining company told that promises given in EIA process were regularly controlled by public institutions. He said that

> Public institutions control whether we did our promises and followed all items in regulations. For example, we write promises such as 'I will close the top of the quarry', 'I will prevent the dust with water', 'I will do explosion in this day'. The Ministry of Environment controls if I follow these. If we say I will do this much and do more, they determine and try to take precautions by giving penalties. Because the penalties got harder. First one is 13 thousands, second one is 26 thousands, third one is 42 thousands of Turkish Liras and then it goes to the closure of facility. Our facilities are sealed and this is a loss of prestige. There are two companies closed in this way.

Another interviewee from private sector also focused on the importance of promises in EIA process and told that local people should attend to public meetings of EIA to add their wants to these promises. The interviewee from university emphasized the impact of regulations in conflict resolution and explained the process of changing locations of quarries in Belkahve. He said that if it was not a legal necessity, the miners would not change their locations.

An opposing point of view about the promises in EIA process was told by another interviewee from private sector. He said that the promises were recorded in the reports in detail but they were not implemented in practice and the Ministry of Environment did not have enough organization and staff to control the realization of these promises.

Whether these attempts were sufficient and efficient and what should be done else: The attempts for solution were found sufficient by 14 percent of the interviewees from private sector, Aliağa Municipality, and a headman (Figure 100). Besides, regulations and EIA process were sufficient according to private sector; however, the lack of control of the implementation of these regulations caused problems. On the other hand, the interviewee from Special Provincial Directorate told that changes and improvements in regulations were needed.

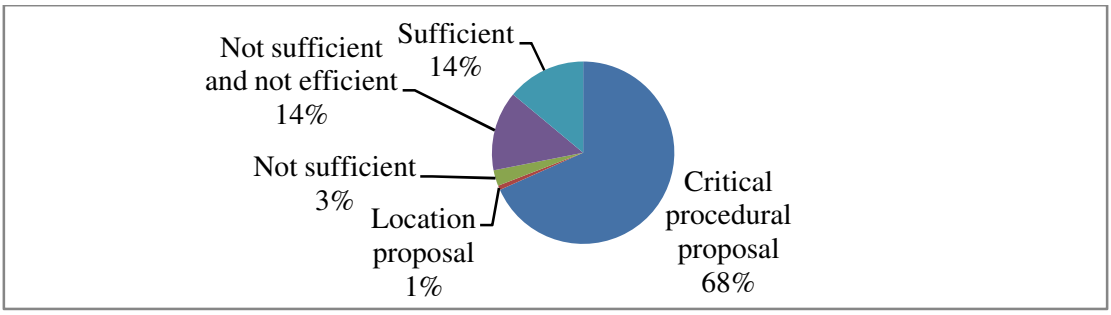

Figure 100. Whether these attempts were sufficient and efficient in quarry case

An interviewee from a mining company told that the solution attempts were sufficient but nobody was satisfied with them therefore all conflicts were ended in courts. Urla Municipality criticized the process in which first the locations were selected by companies and then EIA reports were prepared. He said that not the private sector but the state should decide locations. Also two headmen told that if the state was much sensitive to the people, the system would not be like that. The interviewee from university told that the system was better when the responsible institution was the Metropolitan Municipality.

The interviewees finding the solution attempts inadequate and inefficient were from Karaburun City Council, Karaburun Municipality and a headman. Bornova Municipality said that the process should be transparent and the decisions should be made with collective mind. Local people and their interests should be considered more according to three headmen, Mordoğan Municipality and private sector.

Two headmen told that they expected nothing from decision makers, whereas other three headmen stated that they wanted the quarries to be closed. In addition, a headman told that it was better to locate the quarries on forests rather than on agricultural land. In Germiyan, the mining company was criticized not to make anything for the village such as giving materials, repairing road and paying water bills.

4.5. Evaluation: A Comparative and Critical Analysis of Conflicts in Planning Processes of 3 LULUs in İzmir

This part includes an evaluation of conflicts in the case studies within the issues reached from the theoretical studies and previous cases for (i) understanding and

analyzing conflicts and (ii) resolving conflicts. Case studies are analyzed with the proposed method including these issues (Figure 101).

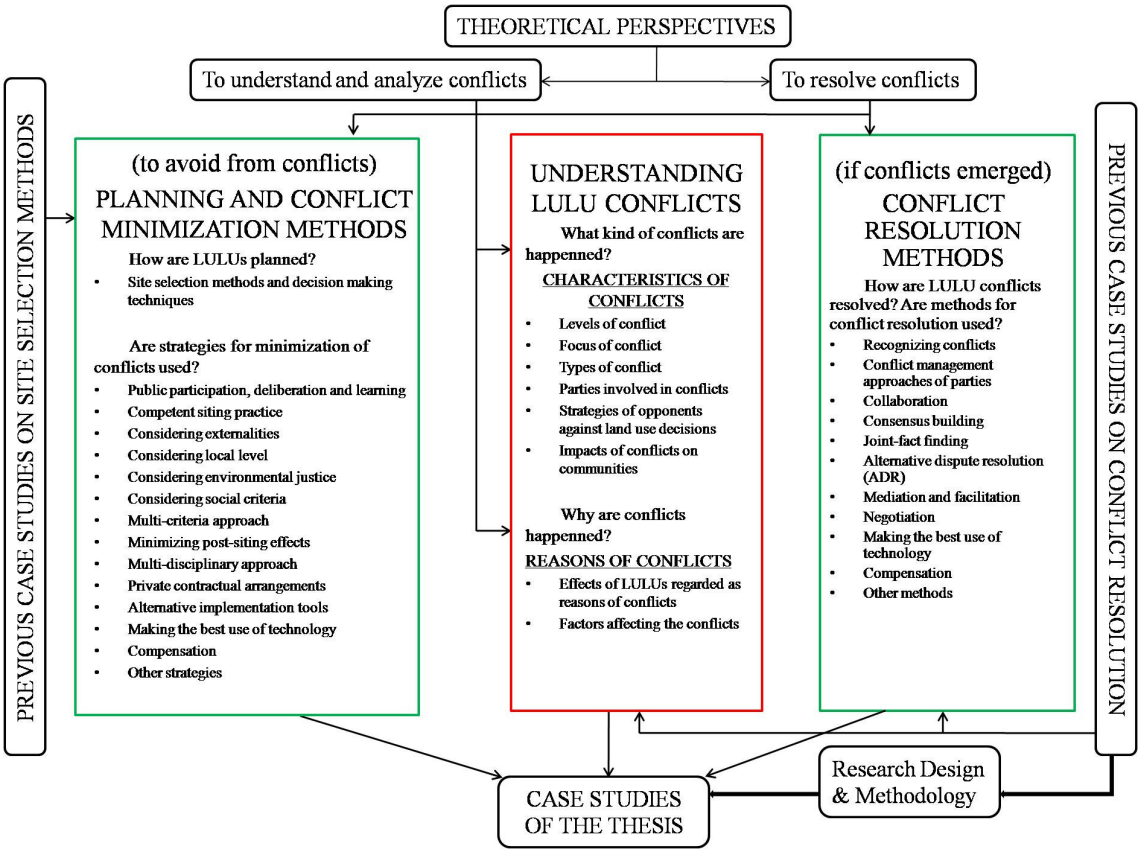

Figure 101. Analysis method used in case studies

4.5.1. Understanding and Analyzing Conflicts

Conflicts in planning processes of 3 LULUs in İzmir are examined within issues about (i) characteristics of conflicts including levels, focuses, types, parties, opposing strategies and impacts of conflicts and (ii) reasons of conflicts including sources of conflicts, effects of LULUs regarded as reasons of conflicts and factors affecting conflicts.

Characteristics of conflicts: There are both common characteristics of three LULUs in İzmir and specifications depending on LULU types and locations.

Levels of conflict: Conflicts of various levels include issues, disputes and impasses (Godschalk, 1992). While the waste disposal site conflicts in İzmir are in impasse level, the conflicts about quarries and fisheries are in dispute level.

One of the interview questions asked the amount of opponents. The answers showed that the level of conflicts approached differently by various parties. While some described the conflicts as a dispute between a few people, some others told there were a huge amount of opponents (Figure 102).

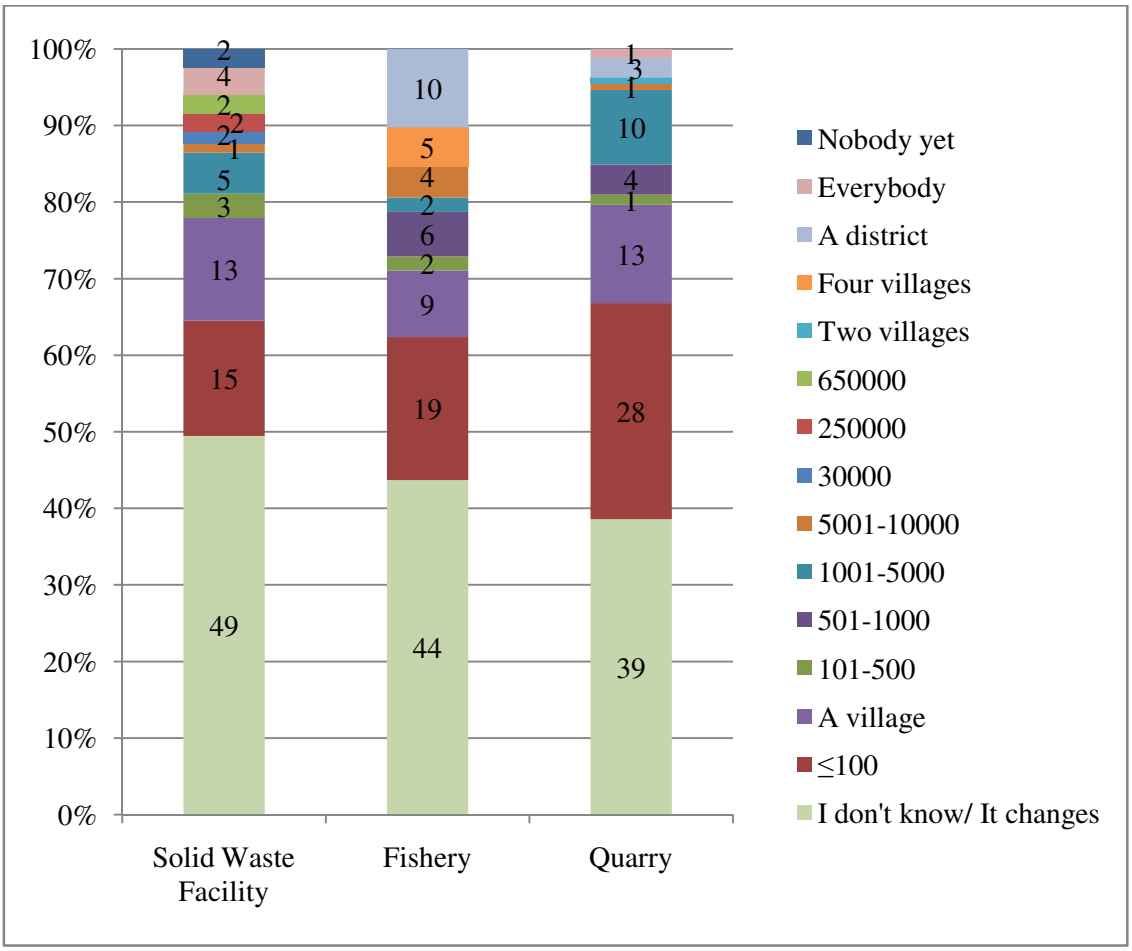

Figure 102. Amount of opponents in three LULU cases according to interviewees

Focus of conflict: Conflicts are classified as issue and people focused conflicts (Whetten & Cameron, 2011). The conflicts about LULUs are usually issue-focused. Rather than people, they focus on issues such as land, land use and nature. The focus of conflict in all three cases is issues. These issues are emphasized in interviews when the main subjects of the conflicts are asked. The main focus of the conflicts were effects of LULUs (more than 88% in all three LULUs) emphasizing mostly environmental and health issues (Figure 103).

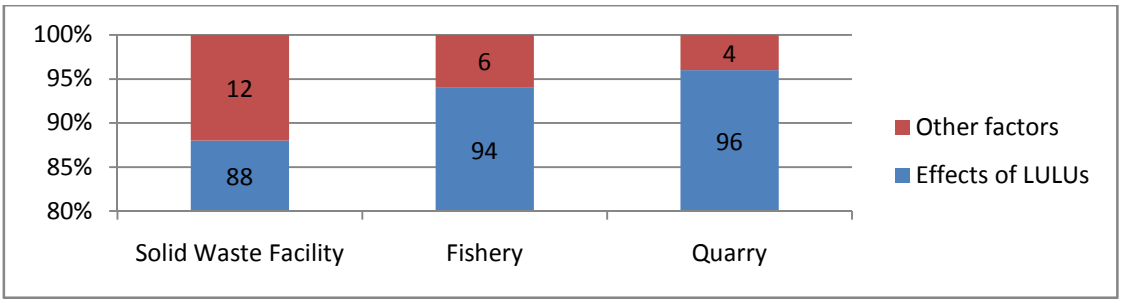

Figure 103. Main subjects of the conflict process

Types of conflict: From the distinction of process, task and relationship conflicts (Behfar et al., 2008; Jehn and Mannix, 2001), the type of conflict is process conflict in all three cases. Both internal and external conflicts (Sellers, 1993; Stiftel, 2001) are seen in all three cases. Most of the interviewees told that the protests were local (Figure 104). The external supports to opponents from the outside of the settlements were more in quarry cases than the other two LULU types.

Figure 104. Locality of the protests in three LULU cases

Parties involved in the conflict: Proving many of the previous studies (Lam & Woo, 2009; Kaiser et al., 1995; Jones et al., 2005), there are common parties involved in three cases including public institutions such as Ministry of Environment and Urbanism, hosting or neighboring municipalities, local people, NGOs including chambers, associations with various interests, political parties and city councils, private sector and universities. Metropolitan Municipality is one of the main parties as decision makers in solid waste facilities. Local fishermen, secondary housing owners and tourism sector were also listed as protesters in some fishery cases.

The interview research is conducted with various parties participating in the various stages of the process (Figure 105). The interviewees are asked which stage they participated. The interviewees giving "protesting stage" answer were from headmen (61%), municipality (22%), NGOs (11%), university (3%) and public institutions (3%) (Figure 106). On the other hand, the interviewees also asked who were the opponents and they listed several parties involving in conflicts (Figure 107). The most stated opponent parties were local people/ villagers and NGOs in all three LULUs.

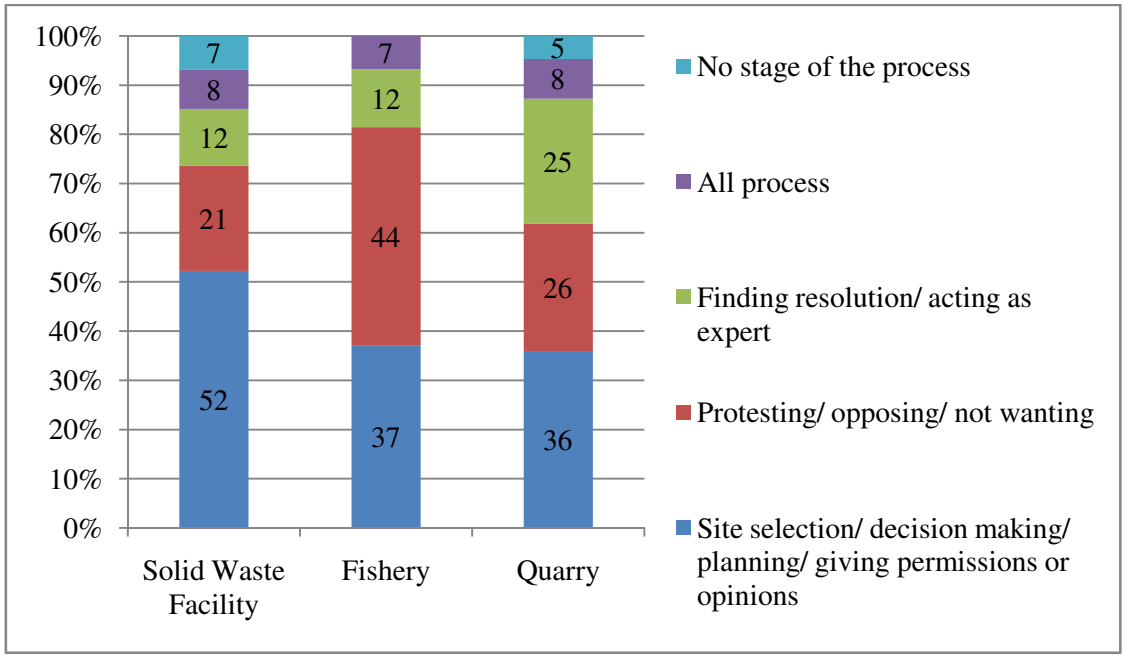

Figure 105. Stages of the process in which the interviewees of 3 LULU cases participate

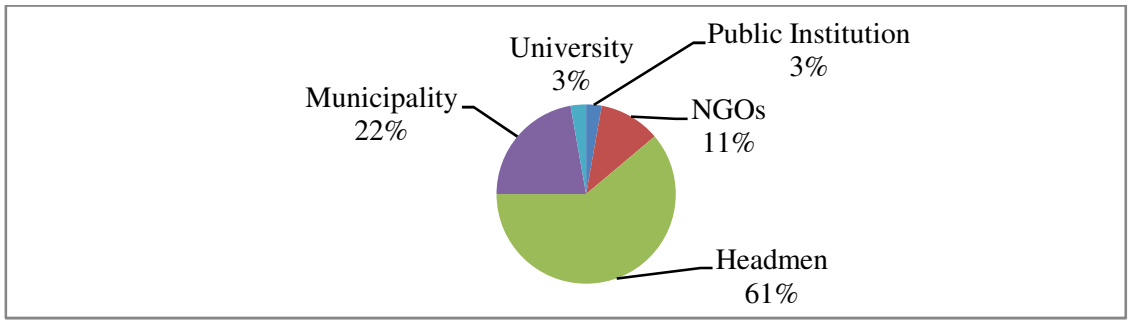

Figure 106. Interest groups of the interviewees who said he/she participated in protesting stage of the process

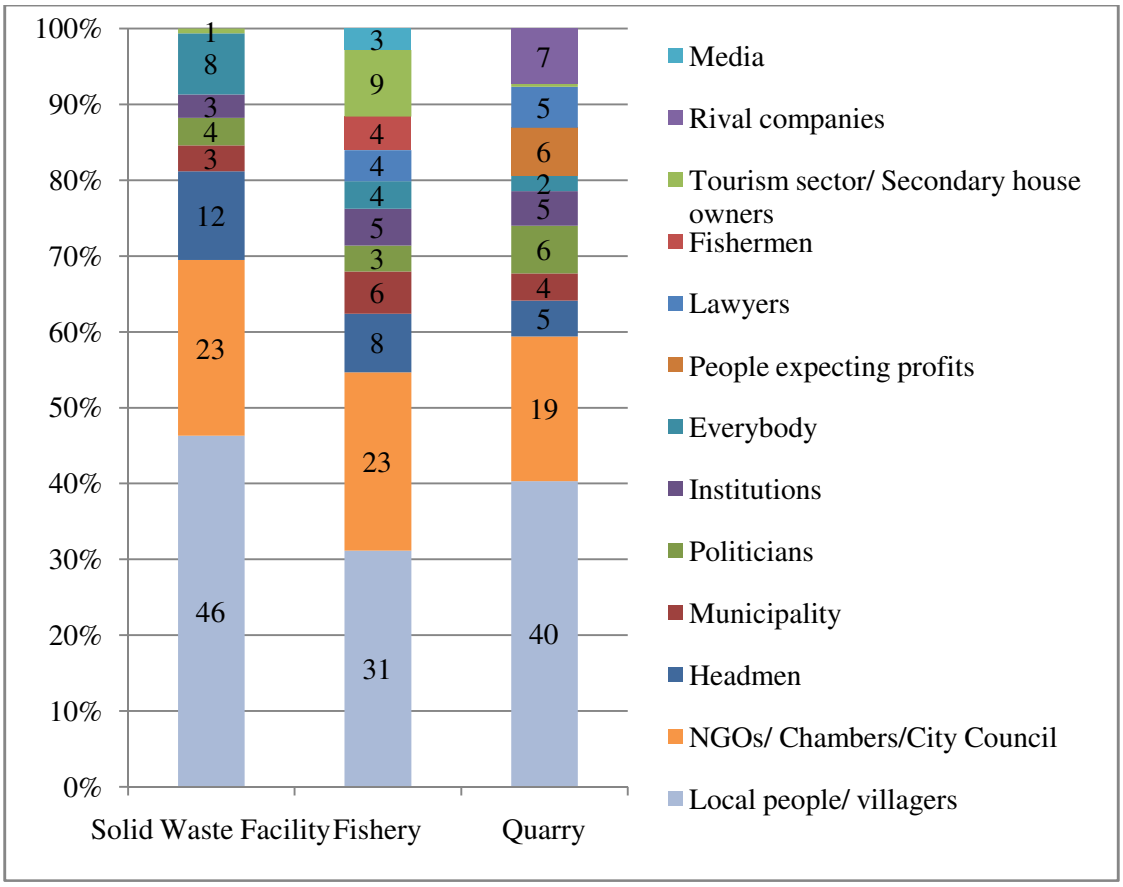

Figure 107. Opponents in 3 LULU cases

Strategies of opponents against land use decisions: Case studies found several opposing strategies (Figure 108) stated in literature including mobilizations, petitions (Baxter et al., 1999; Sherman, 2003; Mannarini, 2009), attracting media attention, letter writing and phone calling (Baxter et al., 1999; Sherman, 2003), slowing down the process, visible anger, polite legal confrontation (Baxter et al., 1999), campaigns against LULUs (Rootes and Leonard, 2009; Sherman, 2003) and lawsuits (Sherman, 2003).

Besides, opponents in solid waste facility cases showed their response to siting decisions by visiting related departments, making objections to the plan decisions and meeting together and showing banners to officials in formal visits of Metropolitan Municipality to the proposed area (i.e. Torbalı), meeting other villages and NGOS (i.e. Gökdere-Kaynaklar), establishing an initiative group against waste (i.e. Torbalı), contacting with Ministers (i.e. Torbalı) and closing roads (i.e. Harmandalı). Disturbing EIA meetings, working with an environmentalist lawyer (i.e. Yağcılar), meetings including concerts, sailing and keeping guard in the sea (Figure 109), bicycles,

firebrands, artists and swimmers (i.e. Sığacık) and protesting by wearing a traditional scarf and playing drums and reeds (i.e. Yağcılar) were other ways of showing opposition in fishery cases. Opponents in quarry cases established civil initiatives (i.e. Özbek), visited public institutions (i.e. Çambel) and applied for conservation decisions to cancel quarry proposals (i.e. Gökdere). Organizing meetings and going to court were the most stated ways of showing opposing responses by interviewees.

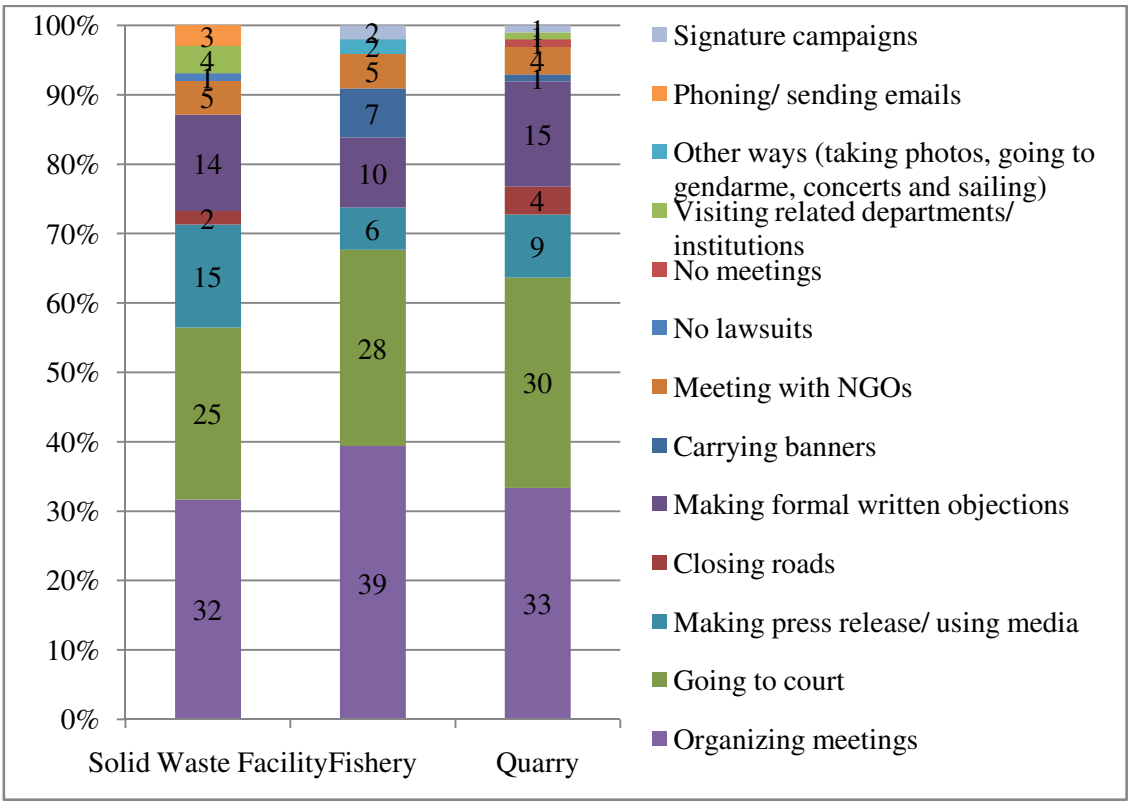

Figure 108. Ways of showing opposition in three LULU cases

Figure 109. Keeping guard in the sea as a way of protesting fisheries in Sığacık (Source: left photo H, 07.11.2011; right photo M, 08.11.2011)

Impacts of conflicts on communities: The only impact stated in both literature (Owusu et al., 2012) and case studies is fear. Interviewees stated other impacts on local opponents as tiring and psychological effects. Also, public officers faced negative attitudes such as invectives. Decision makers had political loses in solid waste cases according to interviewees. Fishery and quarry companies which were moved or closed faced economic costs because of conflicts. Some headmen in quarry cases were threatened by mining companies. The parties harmed in conflicts of case studies were various (Figure 110).

There were also positive impacts of the conflicts in cases which the wrong decisions were cancelled, for instance the solid waste facility within agricultural lands (i.e. Menemen) and quarry near antique city (i.e. Ahmetbeyli). There were also social benefits of conflicts in villages where local people came together and act collectively. Besides, some groups in communities are said to have personal and political benefits.

Two headmen shared their feelings about "success" in terms of playing role in the cancellation of the solid waste facility proposals. One of them said that they succeeded a work bigger than their power and added that "it is not easy for a village to make the decision of Metropolitan Municipality given up". The other headman said

> We succeeded with NGOs. Then, I won the prize of 'the life advocate of the year 2010' given by EGEÇEP (*Aegean Platform of Environment and Culture*). We were touched and affected. Indeed, I can say we wrote a history. We succeeded with all the friends here. If we are united, we will succeed more things.

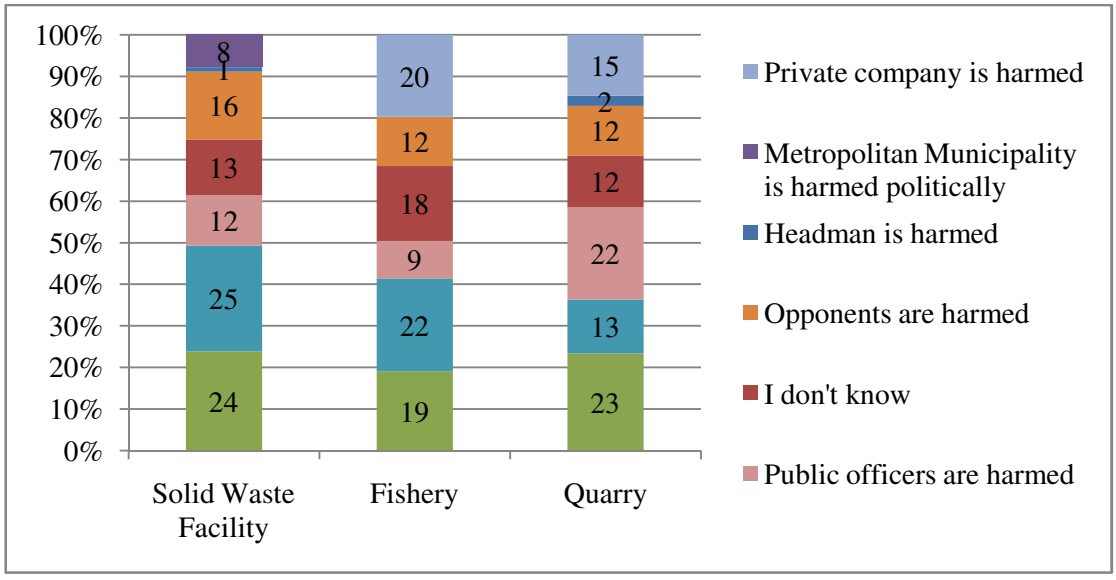

Figure 110. Whether there were people harmed in three LULU cases

Table 12. Comparison of characteristics of conflicts in three LULU cases

	Solid Waste Facility	**Fishery**	**Quarry**
Levels of conflict	Impasse	Dispute	Dispute
Focus of conflict	Issue-focused	Issue-focused	Issue-focused
Types of conflict	Process conflict; both internal and external conflicts	Process conflict; both internal and external conflicts	Process conflict; both internal and external conflicts
Parties involved in the conflict	Public institutions such as Ministry of Environment and Urbanism, hosting or neighboring municipalities, local people, NGOs including chambers, associations with various interests, political parties and city councils, universities and private sector		
	Metropolitan Municipality	Local fishermen, secondary housing owners and tourism sector	-
Strategies of opponents against land use decisions	Mobilizations, petitions, attracting media attention, letter writing and phone calling, slowing down the process, visible anger, polite legal confrontation, campaigns against LULUs, lawsuits		
	Visiting related departments, making objections to the plan decisions and meeting together and showing banners to officials in formal visits of Metropolitan Municipality to the proposed area, meeting other villages and NGOS, establishing an initiative group against waste, contacting with Ministers and closing roads	Disturbing EIA meetings, working with an environmentalist lawyer, meetings including concerts, sailing and keeping guard in the sea, bicycles, firebrands, artists and swimmers and protesting by wearing a traditional scarf and playing drums and reeds	Establishing civil initiatives, visiting public institutions and applying for conservation decisions to cancel quarry proposals
Impacts of conflicts on communities	Fear, impacts on local opponents as tiring and psychological effects, public officers facing negative attitudes such as invectives		
	Political loses	Companies facing economic costs	Companies facing economic costs and headmen threatened by mining companies

Reasons of conflicts: The second issue for understanding and analyzing conflicts is about the reasons of conflicts which are essential for conflict resolution too. There are both actual and perceived reasons affected by underlying factors such as media and politics. Many interviewees (more than 45%) in all three cases stated that

these LULUs were decided to be located on wrong sites (Figure 111). Many interviews (more than 50%) told that the reasons of opposing were both wrong locations and wrong site selection methods (Figure 112).

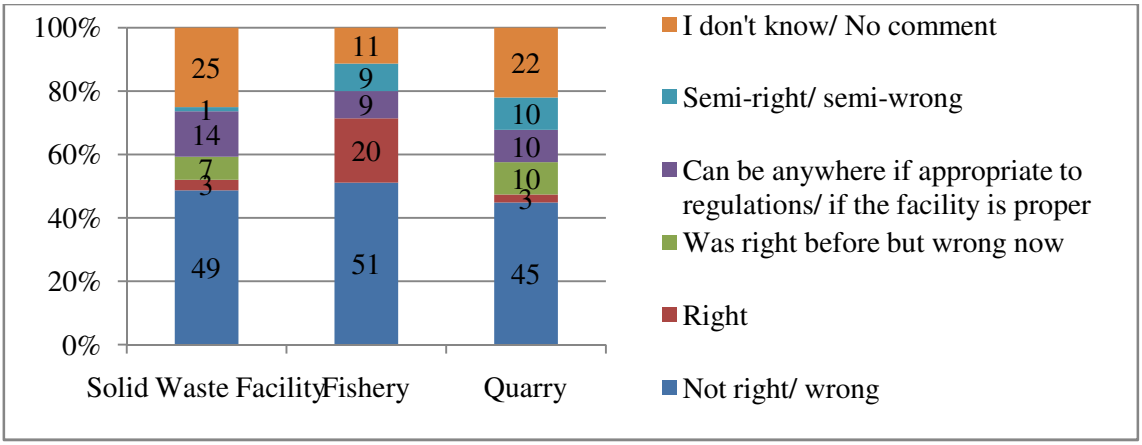

Figure 111. Perceptions of interviewees on rightness of the site selection in three LULU cases

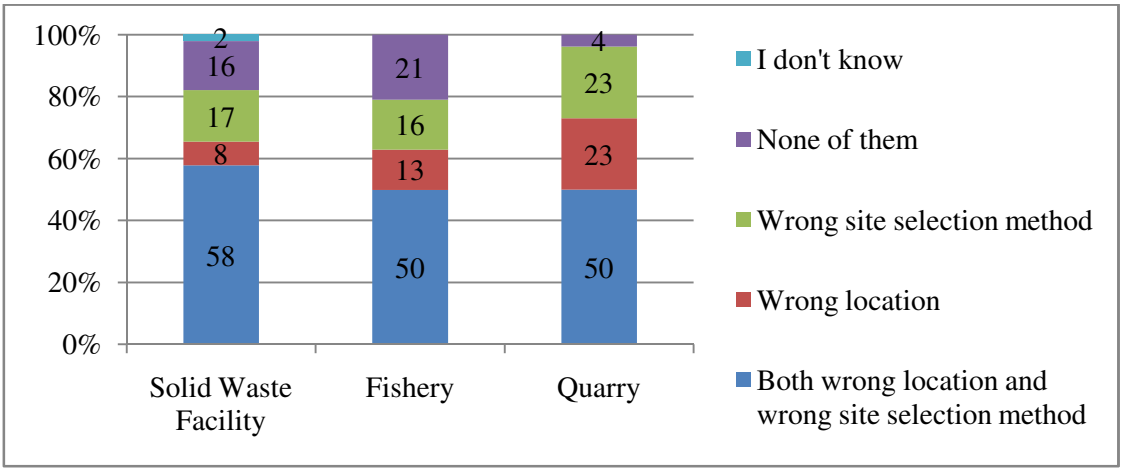

Figure 112. Whether the site selected or its decision making process was the reason of opposing in solid waste facility case

Effects of LULUs regarded as reasons of conflicts: Many negative externalities of LULUs stated in literature are found in case studies (Figure 113).

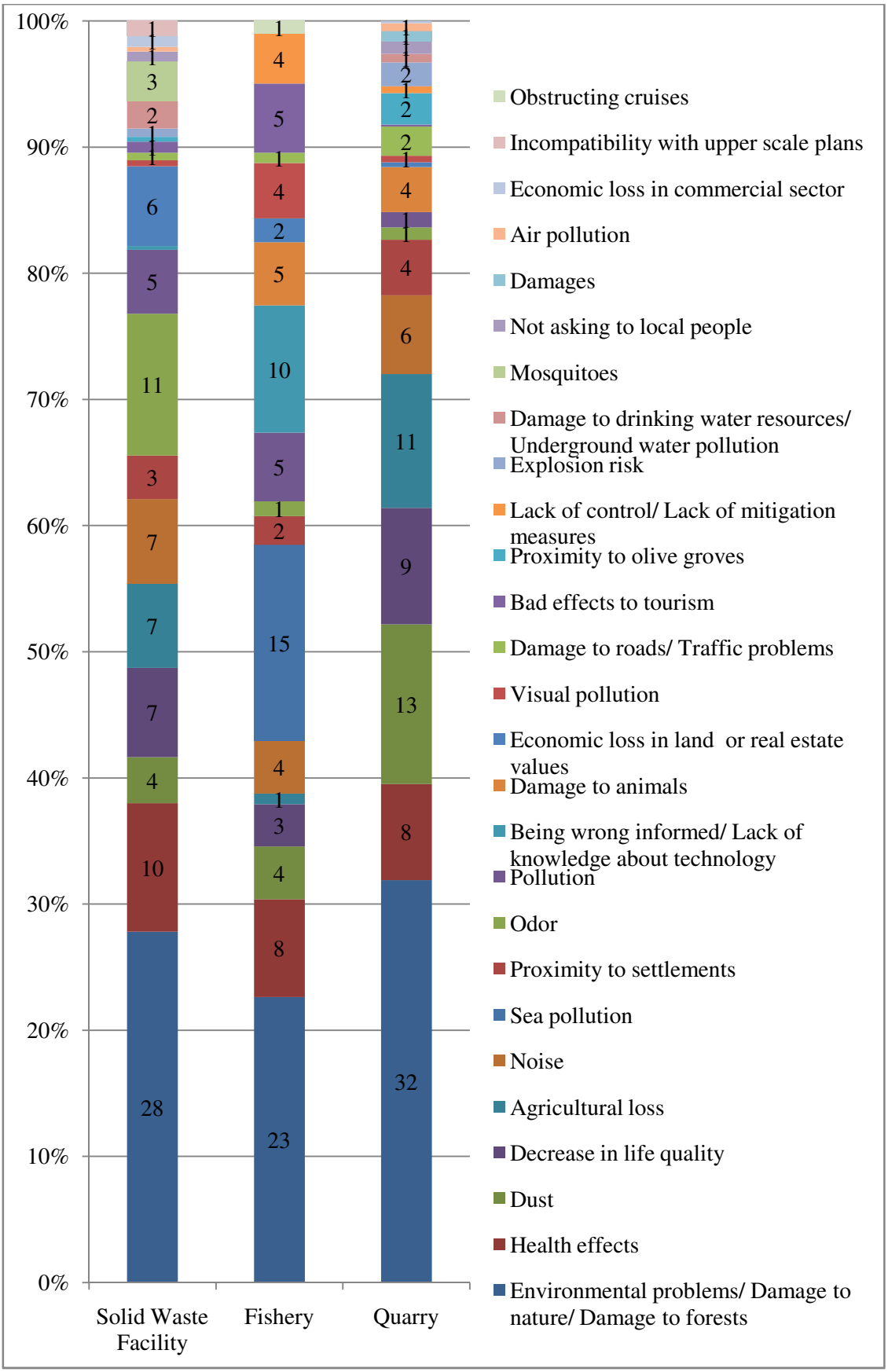

Figure 113. Reasons of being opponents in three LULU cases

1. **Negative Effects:** Some LULUs have distinct impacts which make them unwanted. Examples are odor and mosquito problems in solid waste facilities, sea pollution in fisheries, and dust and vibrations in quarries. The most stated effect of these three LULUs as reasons of conflicts by interviewees was environmental effects.

a. **Environmental impacts:** Some impacts stated in previous studies such as environmental pollution, environmental stress, impact to ecosystem and visual pollution (Popper, 1985; Ishizaka & Tanaka, 2003; Schively, 2007; Lam & Woo, 2009; Rootes and Leonard, 2009; Rogge et al., 2011; von der Dunk et al., 2011; Whetten & Cameron, 2011) are also reasons of conflicts in case studies. Damages of solid waste facilities and quarries to water resources (i.e. Menderes) and forests (i.e. Yamanlar) were listed as environmental reasons of conflicts. Fisheries are told to cause water pollution and eradication of species and damage seals. Possible damage of quarries to 1000 years old trees in Kaynaklar village was told as a reason of not wanting. The most usual source of conflicts about LULUs is environmental stress, because planning is about resource allocation and when there is an urban land scarcity, the local people act against large projects.

b. **Health effects:** One of the reasons for protesting LULUs is their effect to health (Lam & Woo, 2009; Ishizaka & Tanaka, 2003; von der Dunk et al., 2011; Popper, 1985; Schively, 2007; Rootes and Leonard, 2009; Llurdes et al., 2003; Kikuchi & Gerardo, 2009; Rogge et al., 2011) such as possible diseases caused by dust and pollution or psychological effects. In solid waste cases an opponent told the fear about explosion risk of the existing disposal in Harmandalı. An increase in cancer cases in Yağcılar is also told as an effect of quarries. Health effects were seen as reasons of opposing according to interviewees from various parties (Figure 114).

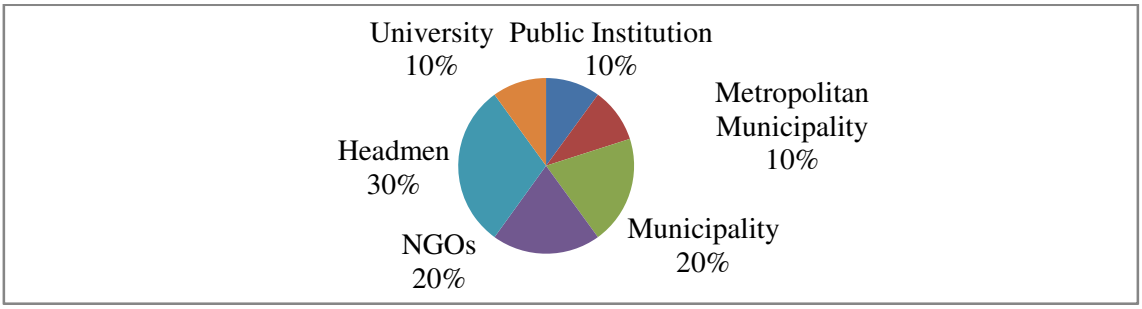

Figure 114. Interest groups of the interviewees who told health effects as reasons of opposing in three LULU cases

c. **Economic costs:** Value lost in lands or real estates and possible damage to agricultural products can be listed as examples (Kikuchi & Gerardo, 2009; Ishizaka & Tanaka, 2003; Lam & Woo, 2009; von der Dunk et al., 2011; Henderson, 2003; Peyton, 2007; Rogge et al., 2011). Economic loss in commercial sector (i.e. Torbalı) and tourism sector (i.e. Menderes and Sığacık) were emphasized as reasons of protesting. Effect of fisheries to local fishing activities was a reason on debate. Quarries were also told to cause loss of pastures which affects the sector of livestock farming. Also, proximity of quarries to olive groves had both environmental and economic costs.

d. **Effects to life quality:** LULUs are not wanted also because of their effects to quality of life (Popper, 1985; Lam & Woo, 2009; Ishizaka & Tanaka, 2003; Minchart and Neeman, 2002; Henderson, 2003; Kikuchi & Gerardo, 2009; Rogge et al., 2011; Owusu et al., 2012) such as noise and odor, traffic problems and fear for additional developments. Electrical energy cuts are reasons of not wanting quarries (i.e. Yağcılar). Mosquitoes, seagulls and poured waste from waste transfer vehicles (i.e. Harmandalı) are reasons affecting life quality because of solid waste facilities. Proximity of the proposed solid waste facility to public sports area and youth center is a reason of opposing in Yamanlar case. Disturbance of quietness in all fishery cases and damage in roads in all quarry cases are other effects to quality of life. Extreme damages were faced in Germiyan case in which stones burst from quarries came to school garden and damaged the walls and windows of houses.

2. **Type of LULU:** Some reasons of conflicts varied in terms of LULU types.

a. **Public-private distinction:** Some LULU types are not wanted because they are seen as way of getting private revenue. Solid waste facilities were distinct from other two cases in terms of being public investments. Some actors opposed quarries and fisheries with a reason that they said “damaging environment for the sake of economic benefits of private investors”.

b. **Necessity or not:** Disagreements about the need for the facility in the country and local need are reasons of conflicts (Lam and Woo, 2009). Some types of LULUs are not considered as necessities for the city or the district. Fishery cases faced with this critique. Some opponents told that fisheries are not urgent needs as solid waste facilities and the cities can live without them.

c. **Being against the LULU itself:** Some LULUs are not wanted anywhere. For example the fisheries for tunny fish are opposed by some groups because those opponents think that these fisheries eradicated species.

d. **Additional facilities:** Some LULU types require additional facilities which local people did not want. For example the logistic facilities, depots and docks of fisheries are listed as unwanted facilities by local interviewees. A headman criticized the illegal dock of the fishery located near his beach and said that "in fact the fishery does not have any harms but the trucks have".

3. **Case location:** There are also location based reasons of LULU conflicts.

a. **Geographic characteristics:** Some LULUs are not wanted in some geographic locations. For example fisheries are opposed in closed bays. Besides, geologic, topographic and other natural characteristics of the sites hosting LULUs may be reasons of conflicts. Solid waste facilities are not wanted in sites with permeable grounds because of the risk of groundwater pollution (i.e. Torbalı).

b. **Neighboring land uses:** When the LULUs are proposed in locations near sensitive land uses such as residential area (i.e. Harmandalı), agricultural land (i.e. Menemen), forests (Kemalpaşa) and olive groves (i.e. Germiyan), their planning processes face conflicts (Figure 115).

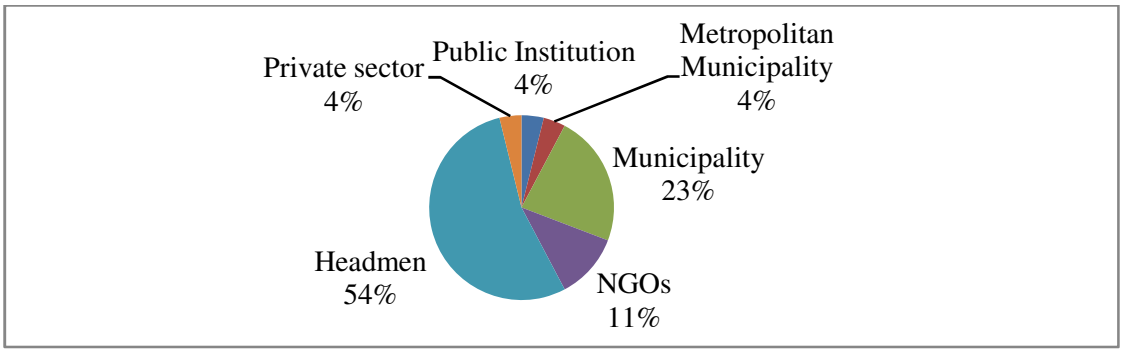

Figure 115. Interest groups of the interviewees who told proximity to settlements and olive groves as reasons of opposing in three LULU cases

c. **Location requirements:** Quarries also differed from other LULU types in terms of their locations that had to be selected from sites with the reserves. Other two types of LULUs could be located in alternative locations, but quarries had no chance to be located in a place without stone resources. On the other hand, optimum locations of quarries are also selected from all reserve areas with various reasons as in other land

uses. Quarries producing materials for construction of buildings and roads were preferred in locations where they would be used; that means they prefer locations near the settlements. Interviewees from NGOs, some public institutions and headmen criticized these; however, an interviewed academician from Mine Engineering Department told that the difference between stones and mines was the factor of economic value and if the quarries were not located in sites near the places that they would be used or sold, the cost of transportation would cause inefficiency.

d. **Conservation decisions:** Protests of LULUs increase when there are conservation decisions in or near their locations. Examples include protests against solid waste facilities near Tahtalı Basin Conservation Area in Menderes, quarries near antique city in Ahmetbeyli and fisheries near fertility zones of seals in Karaburun. A headman from a village near a conservation site criticized the waste facility proposal as: "… they have prevented us to make even henhouse and cowshed in the village for years because of the Conservation Basin of Tahtalı Dam. I said whether two cows are dangerous than solid waste…"

e. **Responsibility boundaries:** Conflicts emerged when local people who are not living in the formal boundaries of districts but being affected by LULUs are not considered in public meetings or decision making processes (i.e. fishery in Sığacık case which is located in Urla boundaries).

f. **Image of the district:** The possibility of losing image affected conflicts about LULUs (Kikuchi & Gerardo, 2009; Rogge et al., 2011). For example in solid waste disposal cases, some groups feared from being named as land of waste because of the possibility of having an image in which local agricultural products are polluted. Apart from this, the municipality feared from damages of fisheries to the Citta Slow image in Sığacık case.

g. **Ownership:** Some LULUs located in privately owned lands faced conflicts with those owners (i.e. Ödemiş).

Factors affecting the conflicts: As stated in literature, some driving forces (Campbell, Gichohi, Mwangi, & Chege, 2000) affected the conflicts about all 3 types of LULUs in case studies. The common factors in all three cases are media, lack of knowledge, political factors, existing bad examples, lack of trust and directions of other people according to interviewees (Figure 116).

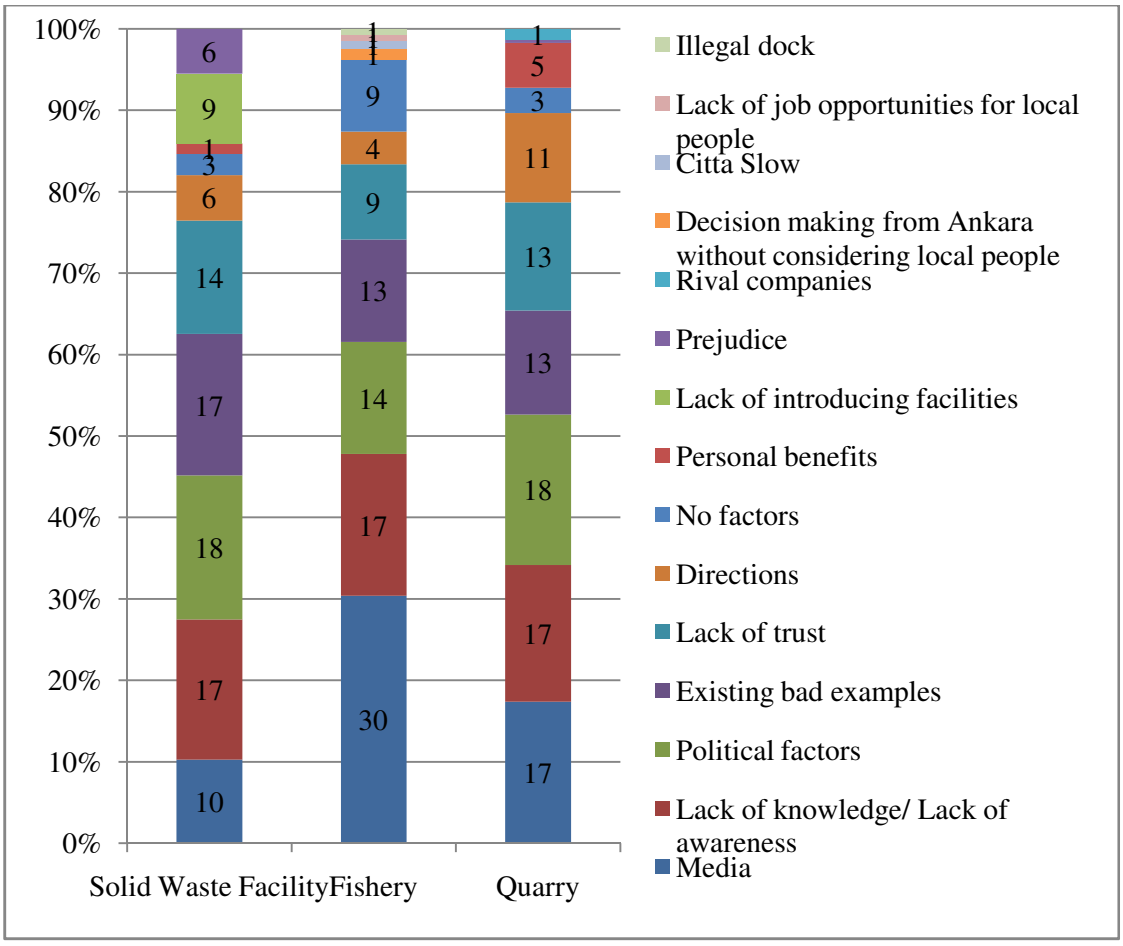

Figure 116. Underlying reasons of being opponents in three LULU cases

1. **Process based reasons:** Many of the factors affecting conflicts are procedural. Many interviewees found the site selection processes unsuccessful (more than 65%). The interviewees finding processes of solid waste facility unsuccessful were less than the interviewees finding processes of other two LULUs unsuccessful (Figure 117).

a. **Top-down decisions:** As stated previously by Rogge and others (2011), local people in case studies criticized the top-down approaches which they described as decision making "from their offices" or "from Ankara". An interviewee from Kemalpaşa Municipality said that "It is not asked to local. When only Ankara decides, some formations (groups) supporting the government can immediately finish their works. Mostly, local (people), local government and municipality should be active."

b. **Decision makers:** Conflicts depending on who decides are several. First, some people think that the Mayor and his friends decided (i.e. solid waste facilities).

Second, some groups criticized the decision making lacking planners. Third, some conflicts happened with the reason of the critique that private companies decide the locations of their investments (i.e. fisheries and quarries).

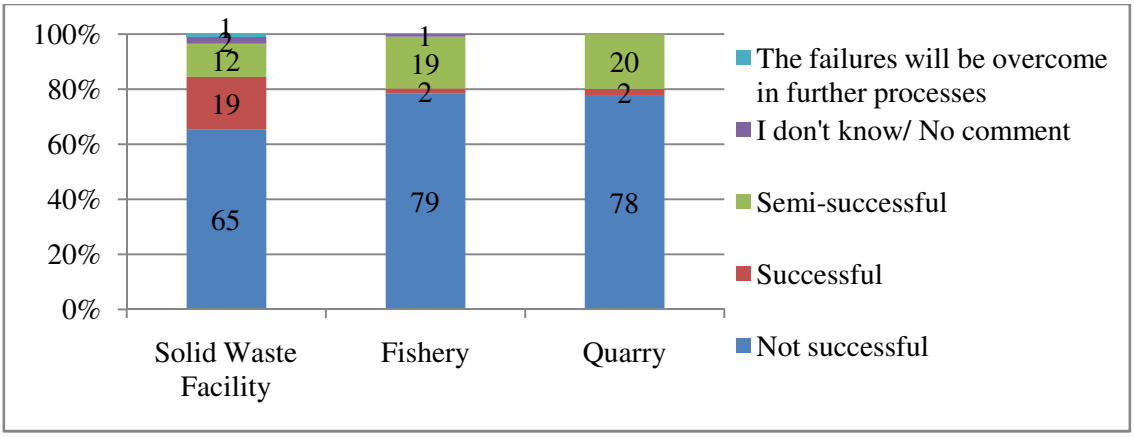

Figure 117. Perceptions of interviewees on success of the site selection process in three LULU cases

c. **Lack of investigation:** Some conflicts emerged because of the investigation deficiencies according to some groups. For example in Bornova solid waste facility case, some actors were suspicious about the criteria including wind and sun directions while selecting sites for those facilities. Also, there is a critique of Menemen solid waste facility site selection which is blamed to be done by looking from Google.

d. **Symbolic participation:** Processes lacking participation of related actors and local people caused conflicts about some land uses. The participation meetings in EIA process in the case studies are told to be symbolic by some opponents. The meeting for deciding potential sites for fisheries was regarded as a symbolic participation too. An interviewed academician from Faculty of Fisheries talked about this meeting with negative impression:

> Ministry of Environment organized a meeting (*to decide potential locations for fisheries*) in Çeşme Pırıl Hotel. All stakeholders attended to the meeting. Marine Counsellorship, Provincial Directorate of Agriculture, Military… The workshop took 3 days. In the last day, a counselor from Ankara came and announced the text in his hand. 9 Eylül University was there. I was participated from Ege University. Everything was a lie. They put all the stakeholders together and then a man comes and makes a text accepted. And he says 'is there any accepters and rejecters?'. They excluded universities from the signature list. Such antidemocratic… Some of our old professors asked why they called us if our opinions were not considered. They said we did not call you, such cagy… These professors went out.

e. **Effect of political actors:** With a combination of previously emphasized factors of politicization of development issues (Bassett et al., 2002) and lack of balance between parties (Andrew, 2001), the involvement of powerful political actors to manipulate the decisions in both site selection process and conflict process increases the local movements in case studies. An example for those involvements in site selection process occurred in fishery cases in which potential locations are said to be decided by those actors. An example for their involvement in conflict process was the explanation of some Ministers in Torbalı case that the district was not suitable for solid waste disposal. When decisions are changed depending on those explanations, people distrust to the process and asked why the decisions changed with political power if they were scientifically suitable.

f. **Temporal deficiencies:** Some LULUs faced conflicts because of weaknesses in meeting deadlines (Andrew, 2001) and being late in their site decisions. For example an alternative site to Harmandalı solid waste facility is told to be late because its capacity has expired. Another temporal deficiency is related with the time of informing local people. The opposing local people criticized the processes in which the companies made the investments but the local people were not informed (i.e. quarries).

g. **Inconsistency with existing plans/regulations:** As some land use decisions are made with only permissions of some institutions (i.e. quarries) or they are made incrementally (i.e. solid waste facilities), they may be inconsistent with upper scale plans and thus those land uses are protested (i.e. Yamanlar).

h. **Lack of open and transparent processes:** Some opponents of solid waste facilities criticized the Metropolitan Municipality not to be transparent in site selection process of solid waste facilities (i.e. Bornova).

2. **Approach based factors**: Factors affecting LULU conflicts may be approach based although they were not included in the reviewed literature.

a. **Planning approaches:** There is an opinion that the approach to decision making process in which planning and planners are excluded caused site selections inappropriate to planning objectives or decisions. These factors caused some groups to criticize the process and oppose to site selection decisions. In solid waste facilities, the decisions were made within a planning process; whereas in fishery and quarry cases, the site selection process depended on permissions and the locations did not have to be included in urban plans. Besides, there was no role for planner in practice of fisheries and quarries. Moreover, the top-down decision making approaches also caused

conflicts. Some interviewees found the process unsuccessful as the decisions were made from "Ankara" without investigating or seeing the site.

b. **Approaches of parties to other parties:** Approaches excluding or forcing local people increased conflicts. For example, some opposing local interviewees stated that the decision makers did not care them. They said that "nobody came to ask our opinions". In addition to complaints from lack of consideration, there was a problem about forcing and rude approaches in quarry cases. The situations in which some headmen faced with threats of mine owners increased conflicts.

c. **Approaches of parties to the reasons of problems:** There is a disagreement in effects of some LULUs which caused conflicts. Some parties told that there was a big problem about pollution caused by fisheries, whereas some other parties rejected the polluting effects of fisheries and told that the problem depended on the lack of knowledge and opponents were directed by powerful actors using coasts. In addition, the fisheries were seen as similar to agricultural lands making production by some of the parties whereas they were seen as similar to abattoirs making murder of fishes by some other parties.

d. **Approaches of parties to the level of disputes:** Interviews tried to explore the approaches of parties to the level of disputes by asking them how many people were participated in conflicts. Some parties approached to conflicts as movements of all people living in the district whereas some parties approached to conflicts as small movements of a few shouting people (i.e. Çakmaklı).

3. **Actor based reasons:** Parties involved in conflicts are a part of factors affecting them. There may be varieties in reasons within and between actor groups.

a. **Varieties between actor groups:** Local actor groups no matter having knowledge about the process and regulations wanted to be considered. Although opponent groups usually focused on the effects of LULUs to local people, other groups emphasized various issues. Actors from Metropolitan Municipality focusing on technological developments and actors from public institutions emphasizing the appropriation of the decisions with the existing legislation are examples.

There are also cases in which effects of LULUs are inferred differently by two opposing parties. The headmen from different villages described the effect of fisheries to local fishing activities differently. One said that the fisheries increased the amount of fish hunted by the local fisheries and even it was better when the fisheries were located closer to the coast. On the contrary, the fisheries were said to affect local fishing

activities badly according to four other headmen, Union of Environment, Culture and Tourism of Karaburun and Seferihisar Municipality.

b. **Varieties between actors of the same group:** Personal differences are one of the sources of conflicts (Whetten & Cameron, 2011). These differences cause varieties in approaches within the same group. The generalization about approaches of public institutions would be meaningless, because there were both opposing and supporting actors from public institutions. On the other hand, actors from private sector had similar approaches. Both mining and fishery companies criticized the process in which they had to face protests although they acted appropriate to regulations. They called for government intervention for solving these problems. Mining companies told the process about quarries providing precautions to minimize effects to local people, but there were some firms which did not take these precautions because of economic reasons and there was a lack of control in practice. Fishery companies told there were other factors increasing conflicts such as wrong knowledge about polluting affects of fisheries and powerful sectors using media.

c. **Characteristics of the citizens in İzmir:** People living in İzmir differed from many other cities in the country in terms of their responses and level of being oriented. Some interviewees told that the people living in İzmir would not be quiet when they had problems; they would fight for their rights and take part in protests without any fear; and also they would learn the ways of getting their rights and would not be oriented by others easily. There are platforms in which different actor groups including provincial governments, municipalities and NGOs exchange ideas, prepare projects and develop strategies and plans in İzmir according to Eraydın and others (2008) who regarded İzmir as "the most important region in Turkey in terms of its experience of governance practices".

4. **Other underlying reasons:** Many scholars emphasized the effect of underlying factors on conflicts. The case studies of 3 LULUs in İzmir proved this emphasis.

a. **Knowledge/ lack of knowledge:** The effect of inadequate information in conflicts (Rogge et al., 2011) interpreted in several ways in case studies. Some parties told that the people who know their rights participate in protests and others without knowledge do not. On the other hand, some parties told that the protesting people do not know the technology (i.e. solid waste facility) or characteristics (i.e. fisheries) of facilities. In this point of view, lack of knowledge is considered as a reason of conflicts.

Informational deficiencies are the sources of the conflicts (Whetten & Cameron, 2011) in all three cases. The less information and knowledge interest groups have about the issue, the bigger problems get. In this context, planners' responsibilities become important as they should inform and support the education of the participants to planning process.

In fishery cases, there were some parties including university, public institution and private sector which blamed opponents to have wrong knowledge about the fisheries and their effects to seas. An interviewed engineer from Provincial Directorate of Agriculture said that

> (*People oppose to fisheries*) because they are wrong informed. Because they think it pollutes; that is the apparent reason. The real reason is the share of place and not to dominate that place. The coast users do not want. There is nothing scientific that fisheries create pollution. There is knowledge pollution in this subject. The experts of this subject do not say it pollutes.

b. **Media:** The role of media in conflicts (Bassett et al., 2002; Rogge et al., 2011) had two-fold effects in case studies. First, it had an effect of increasing the effectiveness and recognition of the local movements. Second, some groups said that it spreads biased news directed by powerful sector groups and increases opposing views to some LULUs (i.e. fisheries). Interviewees from various interest groups told that media had effects on protests (Figure 118).

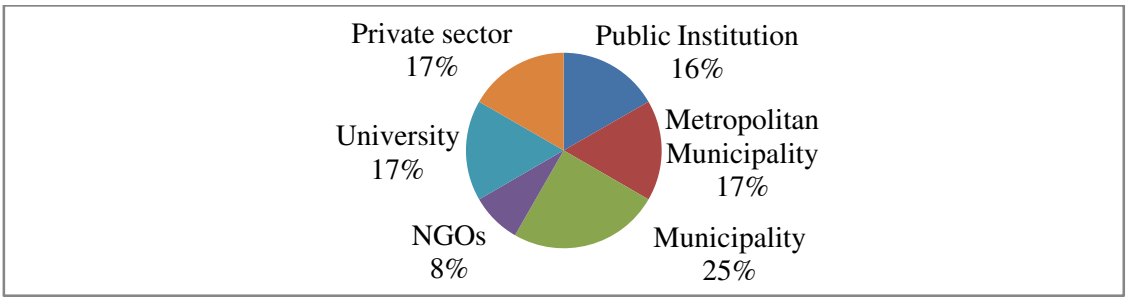

Figure 118. Interest groups of the interviewees who told media as underlying factors of opposing in three LULU cases

c. **Political factors:** Politicization of issues is a factor affecting conflicts (Bassett et al., 2002). There were some groups from political parties which criticize the political approaches of Metropolitan Municipality and thus oppose to their project (i.e.

solid waste facility), or criticize the political positions of central government and thus to oppose the actions of their policies (i.e. quarries).

Political reasons affecting the decision making processes and conflicts were stated by Municipalities (23%), public institutions (23%), private sector (18%), university (18%), Metropolitan Municipality (12%) and NGOs (6%) (Figure 119).

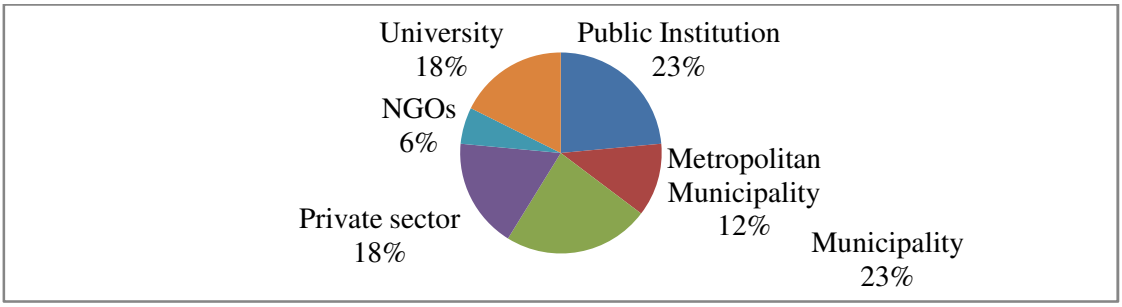

Figure 119. Interest groups of the interviewees who told political reasons as underlying factors of opposing in three LULU cases

In Torbalı case, the municipality criticized some protesters being against waste facility with political reasons. He said

> The biggest reason of the organizers of protesters is their own political future. Today, these protesters do not oppose to the firms getting permissions for mines from Ministry of Environment. They do not oppose to the mines without afforestration. If they oppose to waste facility with environmental reasons they would also oppose to these.

d. **Economic factors:** Economic factors are one of the driving forces of land use conflicts (Campbell, Gichohi, Mwangi, & Chege, 2000). Some conflicts of LULUs emerged from competing interests of various sectors (i.e. fisheries vs. tourism). Besides, some rival companies of the same sector supported local movements against a new proposal of that LULU (i.e. quarries).

e. **Personal economic gains:** Some groups are blamed to be opponents for their own benefits such as money and construction materials (i.e. quarries). There are also local people expecting job opportunities in such facilities.

f. **Prejudice:** As LULUs are "unwanted", hearing their names may be enough for protesting in some cases (i.e. solid waste facility).

g. **Distrust:** Trust or distrust in government affects the emergence of conflicts (Lam & Woo, 2009; Baxter et al., 1999; Ishizaka & Tanaka, 2003; Elliott et

al., 2003). When local people did not trust to decision makers or the companies, the conflicts get bigger and harder. In some cases, local people did not believe that the precautions in EIA reports would be taken (i.e. quarries) and the promised technology would be used (i.e. solid waste facility). All interviewed interest groups stated distrust as underlying factor of conflicts (Figure 120). The distrust is usually related with existing bad examples. The proximity of solid waste facility in Harmandalı because of the development permissions given after its establishment is seen as a bad example. Another one is the effects of irregular and technologically poor fisheries located in shallow water before the regulation. Moreover, quarries which are permitted with the previous regulation without technical experts and environmental precautions are bad examples increasing distrust and conflicts.

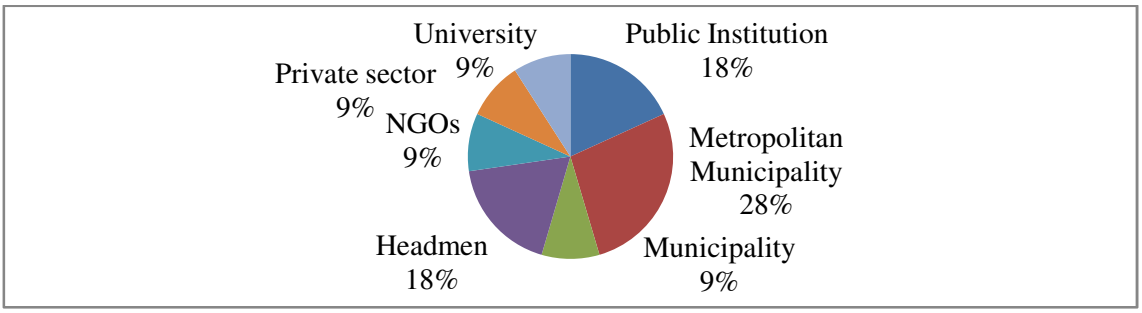

Figure 120. Interest groups of the interviewees who told distrust as underlying factor of opposing in three LULU cases

A headman opposing one of the recent cases of the solid waste facility said that

> We protested. Why? Because of that İzmir Metropolitan Municipality did not fulfill the promises. For example, level crossing and overpass were not built. (…) We will not be opposed in the event that Metropolitan Municipality will do (*waste*) facilities as he (*the Mayor*) said. It will have benefits for the district. We are against this because we do not trust Metropolitan Municipality. Our waste bins have holes. We could not go out in summer because of mosquitoes. How will be a facility like Europe's? It does not seem convincing.

On a contrary point of view, the interviewee from Karşıyaka Municipality told that there was no distrust in Yamanlar case. He told that the Metropolitan Municipality had done the necessary feasibility although he was one of the opponents of the site selection decision.

Table 13. Comparison of reasons of conflicts in three LULU cases

			Solid Waste Facility	**Fishery**	**Quarry**
Sources of conflicts			Environmental stress and informational deficiencies		
Effects of LULUs regarded as reasons of conflicts	**Negative Effects**	**Environmental impacts**	Environmental pollution, impact to ecosystem and visual pollution		
			Damages to water resources and forests	Water pollution and eradication of species and damage seals	Damages to water resources, forests and trees
		Health effects	Possible diseases and psychological effects		
			Explosion risk	-	An increase in cancer cases
		Economic costs	Value lost in lands or real estates, possible damage to agricultural products, economic loss in commercial and tourism sector		
			Proximity to olive groves	Effects to local fishing activities	Loss of pastures affecting livestock farming, proximity to olive groves
		Effects to life quality	Noise, traffic problems, fear for additional developments		
			Odor, mosquitoes, seagulls and waste poured from vehicles, proximity to public sports area and youth center	Odor, disturbance of quietness	Electrical energy cuts, damage in roads, stones burst from quarries came to school garden and damaged the houses
	Type of LULU	**Public-private**	-	Private investment	Private investment
		Necessity or not	-	Not urgent needs that the cities can live without them?	-
		Location requirements	-	-	Had no chance to be located in a place without stone resources
		Being against the LULU itself	-	Not wanted anywhere by some groups because of eradicating tuna fish	-
		Additional facilities	-	Logistic facilities, depots and docks	-

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Table 13 (cont.)

			Solid Waste Facility	Fishery	Quarry
Effects of LULUs regarded as reasons	**Case location**	**Geographic characteristics**	Not wanted in sites with permeable grounds because of the risk of groundwater pollution	Not wanted in closed bays	Not wanted in sites with permeable grounds because of the risk of groundwater pollution
		Neighboring land uses	Sensitive land uses such as residential area, agricultural land, forests and olive groves	Sensitive zones such as fertility zones of seals	Sensitive land uses such as residential area, agricultural land, forests and olive groves
		Conservation decisions	Such as water basin conservation areas	Sensitive zones such as fertility zones of seals	Such as water basin conservation areas and antique city
		Responsibility boundaries	-	Exclusion of affected people out of formal boundaries	-
		Image of the district	The possibility of having an image with polluted agricultural products	Citta Slow	The possibility of having an image with polluted agricultural products
		Ownership	When in privately owned lands	-	-
Factors affecting the conflicts	**Process based reasons**	**Top-down decisions**	"from their offices"	"from their offices" or "from Ankara"	
		Decision makers	Some people think that the Mayor and his friends decided.	No planners; companies select sites	No planners; companies select sites
		Lack of investigation	Investigation deficiencies		
		Symbolic participation	Public meetings in EIA process		
		Effect of political actors	Involvement of powerful political actors to manipulate the decisions		
		Temporal deficiencies	Late for alternative site to existing facility out of capacity	Time of informing local people found too late	Time of informing local people found too late
		Inconsistency with existing plans/ regulations	When inconsistent with upper scale plans		
		Lack of open and transparent processes	Criticized in some cases		

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Table 13 (cont.)

			Solid Waste Facility	Fishery	Quarry
Factors affecting the conflicts	Approach based	**Planning approaches**	-	Planning and planners are excluded	Planning and planners are excluded
		Approaches of parties to other parties	Approaches excluding or forcing local people		
			-	-	Forcing approaches of companies
		Approaches of parties to the reasons of problems	-	Disagreement about polluting effects of fisheries	-
		Approaches of parties to the level of disputes	Movements of all people living in the district or movements of a few shouting people?		
	Actor based	**Varieties between actor groups**	Opponents focus on the effects and public institutions focus on the appropriation to the legislation		
			İMM focus on technology	effects of fisheries on local fishing activities?	-
		Varieties between actors of the same group	Both opposing and supporting actors from public institutions		
		Characteristics of the citizens in İzmir	Differed from many other cities in the country in terms of their responses and level of being oriented		
	Other underlying reasons	**Knowledge/ lack of knowledge**	Both a reason of protesting (lack of knowledge about technology and characteristics of LULUs) and not protesting (lack of knowledge about the effects of LULUs)		
		Media	Increasing the effectiveness and recognition but spreading biased news directed by powerful groups		
		Political factors	Some people criticizing political positions of decision makers also oppose to their LULU siting decisions		
		Economic factors	-	Fisheries vs. tourism	Some rival companies
		Personal economic gains	-	Job opportunities	Job opportunities; personal benefits such as money and materials
		Prejudice	Hearing their names may be enough for protesting in some cases		
		Distrust	Not believing that the promised technology would be used	Bad examples such as irregular and technologically poor fisheries located in shallow water before the regulation	Not believing that the precautions in EIA reports would be taken; Bad examples such as quarries permitted without environmental precautions

4.5.2. Resolving Conflicts

The second part of the evaluation of the conflicts in case studies include three sub-headings: (i) minimizing conflicts (ii) resolving conflicts and (iii) both minimizing and resolving conflicts.

Minimizing conflicts: Some attempts of decision makers to minimize conflicts about LULUs in case studies matched the strategies proposed in previous literature. Besides, there were case specific attempts. Although some interviewees listed some attempts of decision makers, some others told nothing was done (Figure 121).

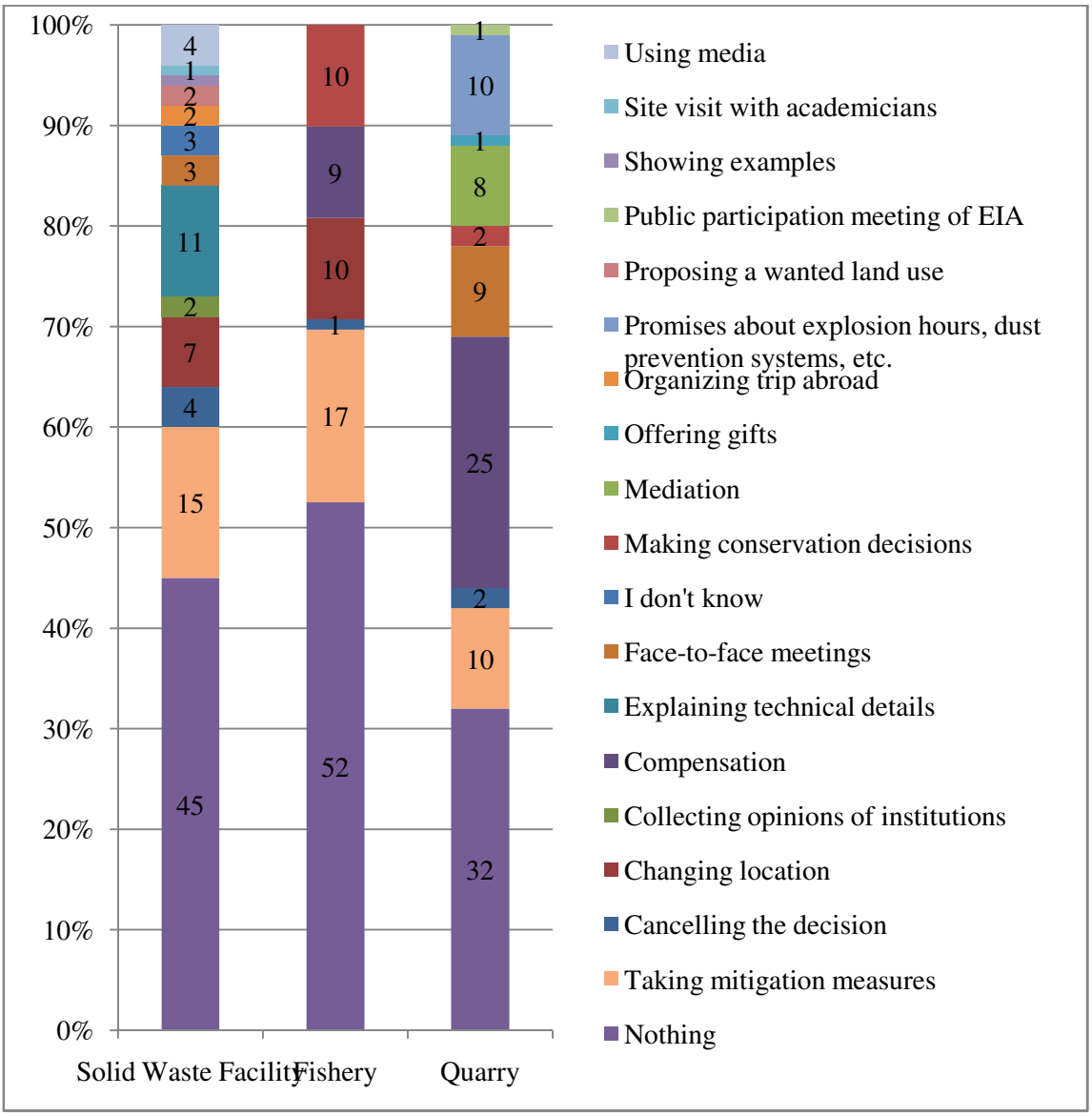

Figure 121. Attempts of decision makers for conflict resolution in three LULU cases

Most of the interviewees (82 % in solid waste facility case, 54% in fishery case and 68% in quarry case) criticized these attempts. Only one percent in solid waste facility case, two percent in fishery case and 14 percent in quarry case found the attempts sufficient (Figure 122).

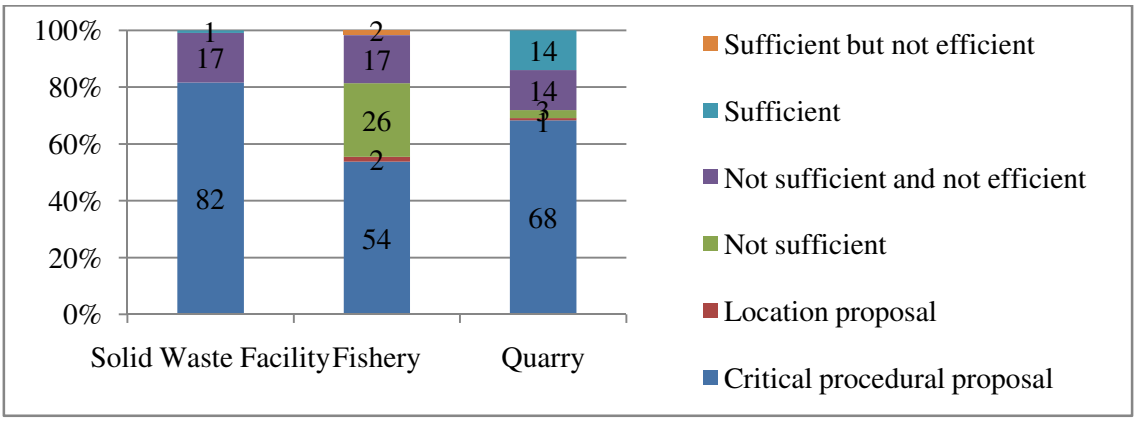

Figure 122. Whether these attempts were sufficient and efficient in three LULU cases

Some of these attempts are regarded as a strategy of decision makers to persuade opponents. An example was the Germany trip organized by the Metropolitan Municipality to show good examples of solid waste facilities. Chamber of Commerce in Torbalı did not attend to the trip and the interviewee expressed his thoughts with these words:

> … but Metropolitan Municipality disregarded our explanations (*about the reasons of opposing*) and had a work of taking a 30 people commission to Germany to show them a recycling firm of a city with 60000 population with an aim of deceiving them and cheating the headmen and managers in Torbalı. They wanted us to attend to this trip. As Chamber of Commerce, we answered that they needed to visit Harmandalı at the end of the Germany trip. Therefore, we saved our district from being waste disposal area of 30 districts.

On the other hand, the answers to the question of the reasons of not opposing in three LULU cases included some of these attempts (Figure 123). The reasons about trust, personal economic gains, not being affected, knowing the facility, job opportunities, gifts for village and financial support showed the efficiency of these attempts on preventing some opponents.

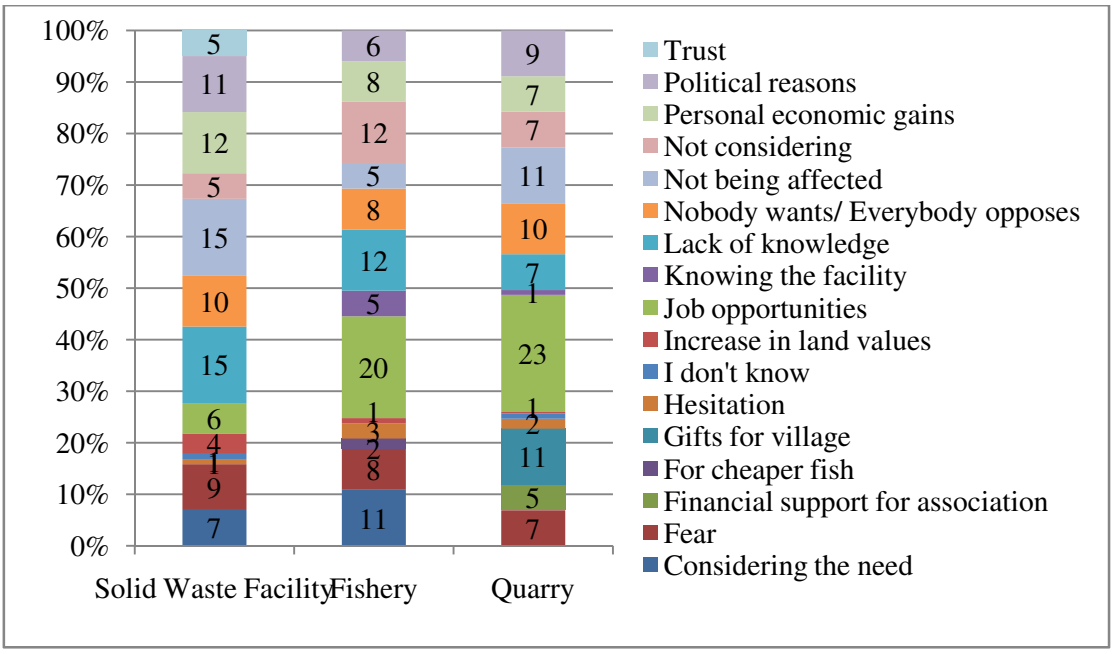

Figure 123. Reasons of not opposing in three LULU cases

Public participation, deliberation and learning: Participatory approaches of several scholars (such as Forester, 1999; Carpenter, 1999; Healey, 2003; Bryson, 2004) could not be successfully managed by decision makers in the case studies. Indeed, the ongoing regulations do not require participatory planning processes except EIA process. Interview results indicated that the regulations were main determinants for decision makers. Some interviewed public institutions told that the oppositions would not be considered if the facilities are located with a legally competent process. There were contrasting opinions about EIA process which is seen as a successful participatory process according to some groups while it is stated by some other groups that the participation in EIA process was for the sake of formality but not an efficient one. Also, some opponent interviewees criticized the process in which private companies took 'EIA is not needed" report by showing their capacities lower.

Allmendinger pointed the role of systems planning today with an example of Environmental Impact Assessments (EIA); however their validity is even on debate in some practices. For example, the people living near the proposed land uses act against these decisions although their EIA has prepared by decision makers.

Although it would be a subject of another research to evaluate the success of EIA processes in Turkey in detail, this research reached clues in this matter from interviews with people who talked about EIA meetings. Straus (1999) proposed three

dimensions to evaluate the success of meetings in terms of (i) results achieved, (ii) process used and (iiii) relationships built. There were several opinions of interviewees showing that EIA meetings about quarries and fisheries in İzmir failed in all these dimensions. Some interviewees told that the meetings were productive in terms of outcomes desired by only the investors not the local people. In terms of process, some interviewees were not satisfied with the way the meetings were run. In terms of relationships, the meetings were under tension in which even the public officers heard abusive words and faced rude attitudes. These poor aspects of EIA meetings listed in the interviews were not surprising because the main purpose of these meetings were only informing the citizens rather than building consensus.

In addition to EIA meetings, a participatory meeting was tried in fishery cases. Potential sites of fisheries were decided in a meeting participated by various public institutions, private sector, NGOs and universities. A protocol is signed after this meeting. This meeting was criticized by several interviewees who participated there. A sharp criticism was of an interviewee from Provincial Directorate of Agriculture that potential locations were decided with a subjective approach by directions of Ministers towards their political and private interests. Besides, an interviewed academician from Faculty of Fisheries also criticized the process that it was a show rather than a real participation and that negotiated decisions of the participants were not approved but the text brought by a counselor was signed. Participatory approaches are emphasized in theory as requirement of competent siting practices (Baxter et al., 1999; Magigi, 2010 Nordenstam, 1994; Margerum, 2002); however, these negative opinions of interviewed participators showed that the success of the attempt of participatory meeting for deciding potential sites of fisheries was an ongoing debate.

There is no consensus between interviewees from Metropolitan Municipality in terms of including participatory conflict resolution in planning process. One advocates the view that the decision maker has a right to select the site; therefore there is no need to compromise with local people if the site fulfills technical details and regulations. Similarly, another interview states that there will be no solution if the process is participatory. Moreover, another says that there would be people who can not be convinced whichever participatory model is used. He also gives examples of some non-participatory projects of central government such as Konak Tunnels and Passage of Gulf in which no conflicts are happened. On the contrary, another one advances the benefits of participatory approaches in terms of increasing possibility of solutions.

These diverse perspectives might be the reason of not trying participatory approaches in solid waste cases in İzmir.

Competent siting practice: Many scholars (such as Nordenstam, 1994; Elliott et al., 2003) argued that competent siting practices fulfilling the principles of trust, equity, participation and communication will minimize conflicts about LULUs. The communication with stakeholders and mostly local people was used in LULU siting processes in all three cases; however, it was done after the decision made. Although the communication was not a legal requirement for the decision makers, decision makers in solid waste facility case were usually open to diverse thoughts and opposing views. The LULU site selection criteria were technical; therefore, the equity principle was not seen in the criteria. Despite this situation, there were not proofs showing inequity in the LULU siting processes in three cases. Developing trust and public participation were lacking principles in these three siting processes.

Considering technical criteria is also a requirement of competent siting practices. Decision makers in all case studies about three LULUs in İzmir told to give attention to technical requirements for the facilities. Various experts took place in decision making processes. Although some interviewed opponents were suspicious about this consideration, case studies showed at least minimum legal technical requirements. Technical arguments brought by professional expertise are described as a way for planners to foster public deliberation (Forester, 1999). However, "technically competent work" is not adequate alone for further public deliberative processes in the cases, but also planners should be sensitive to public values and social identities.

Minimizing post-siting effects: Post-siting effects of LULUs (Been, 1994) and mitigation measures should be considered to minimize conflicts (Lam & Woo, 2009). When conflicts emerged in cases with existing facilities, decision makers tend to improve their conditions to minimize the disputes. Existing solid waste facility in Harmandalı was decided to be rehabilitated by Metropolitan Municipality. Fisheries were moved to locations with redefined deepness and distances. Quarries in Belkahve are moved to a more acceptable location without a visual pollution.

The previous attempts of minimizing fishery conflicts by moving them to deeper water is approached differently by proponents and opponents of these LULUs. While some proponents of fisheries told that the regulation which moved the fisheries in deeper water was a bad solution, some opponents found it as a successful step for resolution of fishery conflicts.

As the Metropolitan Municipality decided to minimize impacts of solid waste facility with new technology, they emphasized on its presentation to persuade the local opponents. One interviewee told that they put the animation of the new facility on website and introduced the project in several organizations for the Taşkesik case.

Multi-disciplinary approach: The need for a multi-disciplinary approach in LULU decision making emphasized by Nordenstam (1994) was also underlined by some interviewed parties. There were opposing perspectives in the success of this strategy in case studies. In one point of view, the EIA process required a report signed by various experts from various disciplines. On the other hand, some interviewees criticized the siting decisions given by only engineers.

Private contractual arrangements: Penington (2004) proposed a competitive land use planning in which private contractual arrangements are used to solve externality problem. However, in a system of private control affected parties may not be able to protect their rights and interests; therefore, government control will be a better solution for LULU cases in İzmir on the contrary to this approach. The self-criticism of an interviewee from private sector told that the situation would be worse for local people without the regulation, legislation and control of public institutions in quarry cases.

A conflict creating factor for fisheries is the approach that says "damaging environment for the sake of economic benefits of private investors". Although some opposing parties rejected the need of fisheries, the role of them in public nutrition and the portion of their export in national economy are clear. However as there is a disagreement on the polluting effects of the fisheries and there are interests of local people to be considered, the locations of fisheries should continue to be decided and preventions of pollution should continue to be controlled by public institutions.

Similar to fishery cases, quarry cases are also private investments and face with opposing approaches regarding them as "not a must"; however, the use of materials extracted in quarries in the construction sector is obvious. Apart from other two LULU types, quarries have to be in locations where there is a reserve for these materials. Apart from other valuable mines, quarries suffer to be inefficient when they are located far from the sites to be used depending on their economic loss from transport cost. While miners want the quarries near the cities, their site selection decisions should be decided and controlled by government to protect local people from unwanted effects.

Conflict Resolution: Besides conflict minimization strategies, there were some attempts for conflict resolution in LULU cases of İzmir more or less.

Collaboration and Consensus Building: Collaborative processes bringing stakeholders together to reach consensus agreement on decisions are promoted in several theories (such as Innes & Booher, 1999b; Elliott et al., 2003; Cullen et al., 2010). While some attempts approximating these approached are tried in case studies, most of them failed because of using them after making the decisions.

Metropolitan Municipality organized some face-to-face meetings with local people and chambers to solve the conflicts about proposed location of new solid waste facility. Interviewees from this institution told that they told the technology of the proposed facility and explained that it would not cause problems as in the existing one. Newspapers included news that Mayor of Metropolitan Municipality tried to talk with villagers but the opponents shouted him down. On the other hand, the interview from Chamber of City Planners told that the meetings of him with chambers had only a persuasion aim after making decisions and main focus was on technology rather than location. Face-to-face interaction among stakeholders is a requirement of consensus building (Susskind & Cruikshank, 1987); however, in this case the aim of these meetings were informing the opponents about decisions rather than building a consensus on a mutually acceptable decision.

In Yamanlar case, Metropolitan Municipality tried to get the support of chambers and universities. They asked expert opinions from university for the suitability of the proposed area. They visited the site with representatives of chambers of architects and engineers. As the importance of stakeholder involvement in decision making processes are emphasized in some studies (Kemp, 1992b; Bryson, 2004; Healey, 2006), this attempt is a step for solution. Carpenter (1999) described the field trips and site visits as ways to prepare individuals to participate. Because in some cases participators may not have information about the sites, these visits enable them to understand these locations. The attempts of Metropolitan Municipality in organizing site visits for Chambers and universities could be seen as these kinds of solutions.

A trip to show good examples in Germany was organized by Metropolitan Municipality to explain that a similar facility without problems would be established in Torbalı. As one of the reasons of conflict in solid waste cases was the bad conditions of existing facility, showing good examples may increase positive opinions.

Some location decisions were given up by decision makers and some local interviewees regarded this attempt as a solution. Giving up is a kind of accommodating approach in which the party neglects own needs and satisfy the needs of other parties (Whetten & Cameron, 2011). Some interviewees from decision makers told that cancellation of the decisions were not the result of protests but the result of technical or legal deficiencies.

Both Conflict Minimization and Resolution: The only method used for both minimizing and resolving conflicts was compensation in the case studies.

Compensation: Among various forms of compensation stated in literature (Susskind & Weinstein, 1980; Gregory et al., 1991; Lam & Woo, 2009; Chiou, 2011; Lesbirel, 2011), case studies in İzmir used strategies including providing a wanted land use, bargaining through money and improvement of facilities, and suggesting gifts.

Metropolitan Municipality tried to minimize local protests in Harmandalı case by proposing a "prestigious" urban recreational area which will be provided after the closure of existing waste disposal. Similar to solid waste facility case, it was stated in an interview that some "wanted" facilities such as view terrace and café were proposed in Çambel to persuade the local people to accept quarries; however this suggestion was rejected.

Some bargaining processes between private sector and local opponents were used in some quarry cases. It was stated in the interviews that the quarry companies went to villages or host districts before public meetings of EIA and either give money to local people to stop their possible opposition or to bargain through some promises about explosion hours, dust prevention systems and repairing of the damaged roads.

An interviewee from Provincial Directorate of Environment and Urbanism explained these promises and bargaining process in quarry cases with these words:

> Bargaining is through both money and improvement of facilities. Wanting money is not an event made publicly; it is done secretly. Villagers can compromise with company in terms of arranging hours of explosion. There are promises of companies. How much dynamites will be used is determined. Do not do at night or at the weekend, etc. It is what should be done.

Besides money and promises, it was claimed that quarry companies suggested some gifts to local people such as investments to the schools or mosques in the village, construction materials to villagers, dinners to headmen and employment opportunities for some villagers. As these gifts were given without querying the exact interests of the

opposing groups, this point fit Fainstein's (2000) critique of negotiations including results satisfied the only symbolic benefits because of threat and bias in the process. An interviewee from private sector also added that some villagers were hopeless about the cancellation of the quarry decisions and they felt such benefits were their only chance.

Table 14. Comparison of conflict resolution attempts in three LULU cases

		Solid Waste Facility	**Fishery**	**Quarry**
Minimizing Conflicts	**Public participation, deliberation and learning**	EIA public meetings (formality or efficient?)		
		No need to compromise if the site fulfills technical details/ regulations? No solution if participatory? People can not be convinced whichever participatory model is used?	Participatory meeting for potential sites but full of criticism	-
	Competent siting practice	Communication with stakeholders and local people but after the decision made. Not proofs showing inequity. Considering technical criteria.		
	Minimizing post-siting effects	Rehabilitation of existing site; Proposing a new facility with improved technology	Transfer to deeper water	Transfer to a more acceptable location
	Multi-disciplinary approach	EIA report signed by various experts from various disciplines		
Resolving Conflicts	**Collaboration and Consensus Building**	Attempts failed because of using them after making the decisions		
		Face-to-face meetings with local people and chambers but for persuasion; site visits with chambers and university; a trip abroad for good examples	-	-
Both Minimizing and Resolving	**Compensation**	Proposing a "prestigious" recreational area	-	Proposing "wanted" facilities such as café; giving money; promising explosion hours, dust prevention systems and repairing of the damaged roads; proposing gifts to local people such as investments to the schools or mosques, construction materials and employment opportunities

4.6. Recommendation for Conflict Resolution of Three LULUs in İzmir

There are various theoretical studies proposing conflict resolution strategies as explained in Chapter 2. The appropriate aspects of these proposals are discussed and adapted for case studies. Some of the findings of the case study are parallel to the theoretical inferences such as problems to implement the conflict resolution strategies and criteria to succeed in conflict resolution. The issues below are solutions from theoretical studies which can be used for minimizing and resolving conflicts in case studies.

Minimizing Conflicts: Strategies for minimizing conflicts appropriate in case studies are public participation, deliberation and learning, considering externalities, considering local level, multi-criteria approach and multi-disciplinary approach.

Public participation, deliberation and learning: The ongoing decision making processes of many LULUs in Turkey is similar to the process "decide-announce-defend" described by Forester (1999) as "First I'll decide what I want; then I'll announce it and I'll defend it!". Rather than these processes, he proposed deliberative processes and creative solutions encouraged by mediators in cases where planners face conflicts. He told that the thinking of planning as advising decision makers and planners as experts was a past approach and changed to thinking of planning as political and more complex.

For effective deliberation in planning there is a need for considering both substantive issues and procedural issues together (Forester, 1999). Decision makers in all cases about three LULUs tried to solve conflicts by mostly considering substantive reasons. The Metropolitan Municipality in solid waste facility cases attempted to change the technology and quality of the new facility and tried to persuade opponents by focusing on these technical details. In quarry cases both the Ministry of Environment and Urbanism and mining companies told about improvements of the bad conditions such as decreasing dust by using water or rehabilitation of the area after leaving. In fishery cases decision makers hardly cared about the procedural problems, rather they tried to explain that the fisheries did not pollute the seas. As many interviewees think that legislations limit the changes in the process, they do not consider procedural problems and do not propose procedural solutions enough.

Forester (1999) promoted learning from practice. In the solid waste facility cases of this research, however, there were some planners said that they did not know about the previous practices as they participated only in the last one. There is a need for them to listen to the practice stories from their institution's previous experiences about the case and other cases and to understand the challenges to be possibly faced and the opportunities to be learned for other two cases.

Considering Externalities: External effects should be considered in decision making processes to minimize conflicts (Klosterman, 2003). The process should be dominated by local governments. This will give the institution further responsibilities such as taking precautions for external effects, controlling the facility regularly and preventing further residential development near the selected sites of all three LULU types.

Considering local level: As local level is the most affected one, community opposition can be prevented by considering the local concerns (Peeples, 2000; Lam & Woo, 2009). Planning LULUs requires government to clarify national and regional development priorities and to consider interests of local people who would be possibly affected by these land uses. The process asking local people to decide a location seems not likely to succeed, rather a process in which decision makers not only consider local effects and interests in decision making but also be transparent and informative in all stages seems to reach proper solutions.

The lacking point in current process about fisheries and quarries is the consideration of local people in their decisions. Local demands such as providing job opportunities and preventing the use of the existing village roads should be regulated. Local people are excluded from the current decision making processes if the company takes 'EIA is not needed' report for fisheries and quarries. It should be the responsibility of public institutions to inform local people not the responsibility of the private companies. Otherwise after the company take this report, all necessary licenses and permissions and make investments, it is too late to for them to discuss whether the quarry is wanted or not wanted by the local people. In these situations companies either do not care local protests or find ways to stop opposing voices by threats or symbolic benefits. When the companies managed to stop oppositions by this kind of gifts, the success is delusion rather than real one in which real interests of participants are satisfied.

Multi-criteria approach: As mentioned in previous case studies (such as Vasiloglou, 2004; Colebrook; 2005), utilizing from multi-criteria analysis methods such as analytical hierarchy process (AHP) and analytic network process (ANP) and combining these methods with geographic information systems (GIS) and stakeholder analysis methods provides trust in decision making processes of LULUs.

Multi-disciplinary approach: A framework integrating various disciplines is needed in LULU decision making (Nordenstam, 1994). As the LULU concept involves various disciplines such as sociology, economy, environmental management and planning, various experts should be involved in decision making process. In case studies the involvement of various disciplines are seen in EIA process; however, the planners are excluded from processes of fisheries and quarries.

Alternative implementation tools: Land use planning regulations in Turkey are so strict that do not provide chances for alternative tools such as alternative zoning techniques argued by Levy (2000) and Roberts (1988). They may facilitate minimizing conflicts in the case studies in İzmir. For example, with such a method, hosting communities may get some incentives about densities, their development rights may be transferred, some contracts may specify the requirements for LULUs, and some impact fees may be paid for local costs.

Conflict Resolution: Methods for resolving conflicts proposed in literature are utilized here under sub-headings of recognizing conflicts, consensus building, joint-fact finding, mediation and facilitation and planning comprehensively.

Recognizing conflicts: The preliminary step for solution is the recognition of conflicts (Forester, 1999). The solution possibility is weak in cases where decision makers think the process proceeds well. Some interviewees from Metropolitan Municipality in solid waste facility cases and from Ministry of Environment and Urbanism in quarry cases told that the process was successful. The decision makers should be aware of the procedural reasons of conflicts, conflicting parties and their interests.

Conflict management approaches of parties: Collaborating approach is more preferable in reaching all-gain agreements than the other kinds of approaches including forcing, accommodating, avoiding and compromising (Whetten & Cameron, 2011); however in case studies of all three LULUs, parties did not have this approach and they had avoiding, forcing and compromising approaches according to interviewees (Figure 124).

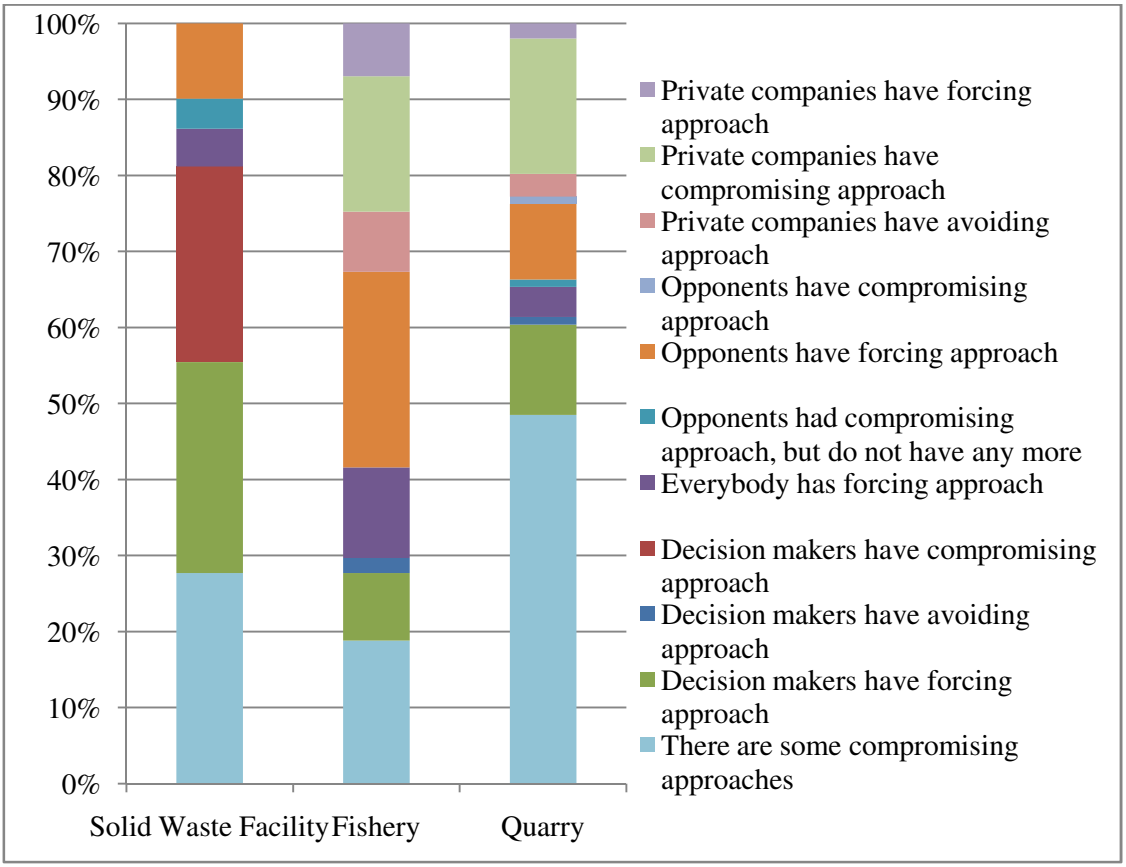

Figure 124. Approaches of parties to the conflict resolution in three LULU cases

An interviewed expert taking part in EIA process as a public officer explained various approaches of private sector on conflict resolution with these words

> Entrepreneurs try to find a way for solution when they feel the response. They say that 'we shall listen to the public and their desires'. However, there are also some of them who do not make this. There are those who say 'this is my right in regulations and I will do this'. There are those who search for collaboration with local people.

Consensus building: Consensus building increased the possibility of implementation of the decision with its attempt of finding mutual gain solutions (Susskind, McKearnan and Thomas-Larmer, 1999). There were some problems about implementation of site selection decisions in case studies. In solid waste facility cases there were several locations decided for new facility but none of them could be implemented. Similarly, some quarry proposals could not be implemented because of conflicts with local people. For example, in Yağcılar case the quarry was implemented but then stopped with court decisions and then implemented again and stopped again

several times. Such implementation problems may be solved with consensus building processes.

The amount of people in the conflict processes affects the success of consensus building and when wider public is participated the process did worse (Beierle and Cayford, 2001). This finding related with the case studies because the participants in most of those disputes included the people from the entire districts or villages. The case studies also suffer from complexity and threats counted as barriers to consensus building by Elliott (1999). He told that the number of issues and parties would be a problem for an efficient process. The case studies in this thesis are also complex in terms of the amount of issues and people. Besides, there are two cases in which headmen told about threats from mining companies. These behaviors may also be barriers to solutions.

Participatory processes face NIMBYism in socially homogeneous areas and face obstacles in metropolitan areas (Fainstein, 2000). In the solid waste cases of this research there would be a kind of NIMBYism and process would possibly face obstacles as the problem comprehended the whole metropolitan area.

Consensus building fails when there is a lack of willingness to participate because of distrust to other parties or expectation of better outcomes from other ways (Carpenter, 1999). This failure would be a possibility for the case studies in which the interviewees listed examples of forcing approaches of various parties. Some opponents told that they will never give up their opposing positions. Besides, some interviewees from decision making institutions told that when the decisions were technically competent there will be nothing to be discussed with local people. Moreover, the mining companies were told to have no willingness to negotiate because they had the power from legislations.

Contextual issues affecting the success of consensus building include cultural and social factors (Carpenter, 1999). Processes needed to adapt to participants from different ethnic, racial, religious or economic backgrounds. In the case studies these characteristics of interviewees were not asked but there were some clues showing this variety. For example, one headman told that the quarries were supported by low income groups to get free materials from the companies; another headman told that the people not opposing to quarries were from an ethnically minority group; another headman stated that some people showing themselves as prayerful Muslims were not oppose to the unwanted facilities.

Another contextual issue affecting consensus processes is the legal framework. The processes in case studies would also fail about this issue. There were people who were not aware of relevant legislation. They even did not know about the responsible institution. This awareness would be ensured by facilitators according to Carpenter (1999).

Historic factors are also regarded as a contextual issue that affects the success of consensus processes. Carpenter (1999) argued that the past failures were barriers to success. Some of the case studies faced these failures several times.

The possible success of consensus building processes can be determined with conflict assessment in which information about stakeholders, issues they gave importance and their willingness to negotiate (Susskind and Thomas-Larmer, 1999). Some of the conditions in which efforts are not likely to succeed included in the case studies. One of these conditions is same with the situations stated by Carpenter (1999): stakeholders who do not want to participate. Another condition is the existence of a better option available. This condition is valid in quarry cases in which mining companies get their rights and powers from laws and existing procedures. Another related condition is the power imbalances among stakeholders. The effect of powerful groups in decisions was a problem in fishery and quarry cases. The fishery case included interviewees suffering from the effect of powerful tourism sector in media and organization of local people against fisheries. The possibility of powerful actors to intervene the results of communicative planning processes was emphasized by Fainstein (2000) as a weakness of these processes.

Although the conflicts mainly emerge between Metropolitan Municipality and local people, some other actors are included in the process of solid waste facilities with various interests. Such interests are mostly political in solid waste case in which some actors wanted the Metropolitan Municipality to be unsuccessful. These conditions make it difficult to try a communicative and participatory process.

The existing solutions in case studies show the possible future of the consensus building approaches in practice under this context. The consensus point should be rethought here in terms of the quality of decisions. Are the decisions successful when there are no opponents? What if there are quieted opposing voices? Then, government authority in decision making and conflict resolution processes of LULUs is a need to provide the consideration of all voices in the community only if the government is socially sensitive.

Joint fact-finding: This kind of information gathering in which stakeholders work together increases trust and decreases disagreements about technical issues (Ehrmann and Stinson, 1999). Disagreement about information was seen in the solid waste disposal case in which both decision maker Metropolitan Municipality and the opponent Karşıyaka Municipality hired technical expertise from universities about the suitability or unsuitability of the facility in Yamanlar. Also, in fishery cases there is a disagreement on the polluting or not polluting effects of fisheries. Statements of a headman from Karaburun exemplify the condition considering distrust. He told that the court expert investigating the fisheries was "a man of the company" and gave a report in favor of the company. The headman did not trust the reports of even the experts of the court.

Situations not suitable for joint fact-finding include power imbalances among parties, lack of belief to a fair fact-finding process, and parties having extreme differences in technical background (Ehrmann and Stinson, 1999). As all three LULU cases lack balance between powers and knowledge of parties, the fact-finding process should be thought twice. It would be a solution to conflicts between public institutions if technical analyses for such decisions are done within a collaboration of various related municipalities, ministries and other public institutions taking part in or being affected from decision making process.

Mediation and facilitation: Recent researchers propose dispute resolution processes supported by mediators and facilitators (Stiftel and Sipe, 1992; Forester, 1999; Susskind, McKearnan and Thomas-Larmer, 1999; Elliott, 1999; Straus, 1999; Holzinger, 2001; McCorkle & Reese, 2005) especially in cases suffering problems of communication and trust (Elliott, 1999) as in the three case studies in İzmir. In several LULU cases, some interviewees did not believe in the possibility of consensus. This problem could be solved by an effective facilitator included in the meetings as Straus (1999) proposed.

Forester (1999) stated professional services firms doing this mediation and facilitation; however, there are not these firms in Turkey but there are advisory bureaus serving for providing expert knowledge rather than serving mediation or facilitation. There are recent attempts to increase mediation processes in Turkey since the approval of related law (No. 6325) in 2012. A Mediation Directorate is established in Ministry of Justice. A new profession of mediators started to solve conflicts alternative to courts. However it is different from what Forester told because of several reasons: it is a public

institution not a private firm or nonprofit organization, mediators are selected from only graduates of law faculties, and disputes related with public interests and requiring discovery and expert assistance are not allowed to be solved with mediation process and court decisions are needed for such situations. Therefore it seems the existing mediation institution is not suitable for solving such disputes in the cases and planners can not act as mediators within the ongoing procedures and legislation.

Planning professionals must play multiple roles while dealing with institutional rivalries, uncertainty and conflicts (Forester, 1999). These roles include bringing knowledge of experts, listening and encouraging creative solutions as mediators, defending particular values as negotiators, and structuring processes of participation, discussion, invention and decision making as organizers. In terms of planner's role, the only evaluation could be done for solid waste facility cases as in the other two case groups planners were excluded from decision making processes. In solid waste facility cases, the planner's role is only the evaluation of the sites proposed by engineers in terms of planning principles and plan decisions.

Forester (1999) argued that the recommendations of planners in practice were not only based on their specialized knowledge, but also sometimes certain options requested by politicians. The fishery case in İzmir had similar points proving this argument. Some interviewees from public institutions, university and private sector told that the potential fishery sites were decided with directions and requests of some politicians. The case differs from Forester's argument in the point that the recommendations were from experts including engineers rather than planners.

Planning comprehensively: Comprehensiveness in terms of size and context is needed to prevent conflicts. For example, decisions about the location of solid waste case is made with an incremental approach, but if these kinds of large public service decisions were made while the whole city is planned then the problems about further development permissions would be prevented and the problems of neighboring districts would not emerged. A critical solution proposal for planning process by Chamber of City Planners:

> İzmir Metropolitan Municipality decided the waste disposal area. This decision is not made within a plan. Indeed, this kind of decisions should be made in Environment Plan by a collaborative work of Metropolitan Municipality and Ministry (*of Environment and Urbanism*) and described with plan notes related with the process requirements for their determination, at least strategically. However, there is not such a plan note in neither 1/100000 nor 1/25000.

On the other hand, fishery cases involve private sector including both investors and affected other sectors using coasts. These sectors take an important part in national and regional economies therefore their conflicts should be prevented by making a comprehensive coastal plan separating those land uses negatively affecting each other.

Table 15. Recommendations for three LULU cases

Minimizing Conflicts	**Public participation, deliberation and learning**	A need for considering procedural issues in addition to substantive issues and learning from practice
	Considering externalities	Taking precautions for external effects, controlling the facility regularly and preventing further residential development near the selected sites
	Considering local level	Considering interests of local people who would be possibly affected by these land uses; being transparent and informative in all stages; providing job opportunities and preventing the use of the existing village roads; preventing the exclusion of local people when companies take 'EIA is not needed' report
	Multi-criteria approach	Utilizing from multi-criteria analysis methods such as analytical hierarchy process (AHP) and analytic network process (ANP) and combining these methods with geographic information systems (GIS) and stakeholder analysis methods
	Multi-disciplinary approach	Integrating various disciplines such as sociology, economy, environmental management and planning
	Alternative implementation tools	Alternative zoning techniques, incentives, transfer of development rights, impact fees
Conflict Resolution	**Recognizing conflicts**	Being aware of the reasons of conflicts, conflicting parties and their interests
	Consensus building	Finding mutual gain solutions to increase the possibility of implementation; being aware of barriers such as complexity, amount of people, lack of willingness to participate, power imbalances, different cultural and social backgrounds, participants' lack of knowledge about legislation, past failures and the consensus point.
	Joint fact-finding	Information gathering in which 'public institutions' work together
	Mediation and facilitation	A need for improving mediation process used in legal disputes, using them for resolving LULU conflicts and including planners
	Planning comprehensively	Deciding locations of LULUs while the whole city is planned; not incrementally

CHAPTER 5

CONCLUSION

Land use planning is a technical and political decision making process shaping the future of the land whose meaning changes but importance remains in different approaches. It has both economic and political functions.

There are various interest groups taking place in planning processes and being affected by decisions of land use planning. They include public institutions, local people, private companies, NGOs and universities. This multiple interest related nature of land use planning causes it to face with conflicts. The possible relation between the conflicts about land uses and its decision making process should be discussed for resolving conflicts. There are some studies in literature proposing several strategies to solve land use conflicts. Participatory planning, dispute resolution techniques, decision making processes considering local community perspectives, and the need for alternative planning processes with more public participation rather than planner-centered planning are underlined by various studies.

Locally unwanted land uses (LULUs) are land uses which may be regionally or nationally needed or wanted but are considered objectionable by many people who live near them because of their negative externalities. Examples of LULUs are power plants, refineries, mines, solid waste facilities, incinerators, housing for the mentally ill, prisons and military installations. While every land use has a potential of facing disputes, LULUs are the most conflict facing land uses. LULUs are opposed by interest groups with several reasons such as health effects, economic costs, harms to environment, and so on. Land allocation for LULUs is usually problematic in land use planning process. Therefore, analysis of LULU conflicts and reviewing the theoretical discussions would be useful to solve or minimize conflicts as they might guide decision makers dealing with LULUs in planning practices.

This thesis aimed to answer why conflicts are emerged in planning processes of LULUs in İzmir and how these conflicts be resolved. After reviewing the literature to find out the theoretical background and methodological guidelines, case studies including 3 types of LULUs in 27 locations are examined by using document analysis, media search and 60 in-depth interviews with 72 stakeholders from various interest

groups. These LULU types included solid waste facility decisions in Harmandalı, Menemen, Taşkesik, Gökdere-Kaynaklar, Menderes, Yamanlar and Ödemiş, fisheries in Demircili, Sığacık, Saip-Ambarseki, Küçükbahçe, Ildırı-Gerence and Mordoğan and quarries in Germiyan, Yağcılar, Nohutalan, Özbek, Karaburun, Kösedere, Pınarbaşı, Belkahve, Gökdere-Kaynaklar, Çakmaklı, Yenmiş-Akalan-Ansızca, Çambel, Karakuyu-Yeniköy-Çileme and Ahmetbeyli.

Findings of the case studies on the reasons of conflicts about LULUs in İzmir supports the findings stated in literature. These reasons mainly include external effects of LULUs on local people, for instance odor of solid waste facilities, visual pollution of fisheries and dust and vibration effects of quarries. There are also procedural reasons of conflicts including top-down decisions, symbolic participation, lack of investigation, effect of political actors, inconsistency with regulations and lack of transparent process. It is found that some conflict resolution methods are used by decision makers including attempts such as face-to-face meetings and engagement with chambers and experts in solid waste facility case, participatory meeting in fishery case and suggesting gifts to possible local opponents in quarry cases. The interviews showed that the opponents are not satisfied with these attempts.

The possibility of solving this kind of reasons of LULU conflicts by changing planning approach are searched in this thesis. Some conflict resolution methods and collaborative processes proposed in the literature may be suitable for LULUs in İzmir. Conflicts can be solved by using consensus building approaches, mediation and facilitation supports and processes considering local level and external effects of proposed land uses. Also, factors affecting LULU conflicts such as lack of knowledge, prejudice, distrust, media and political factors should be recognized.

Theoretical contributions of the thesis are:

- Understanding and analyzing the characteristics and reasons of conflicts are needed for resolving conflicts. Varieties in characteristics of conflicts affect the proposed resolution methods. For example, when the level of conflicts shifts from technical issues to impasses, the possibility of resolution becomes difficult. Also, when the amount of parties involved in conflicts increases, the tools used in participation and representation changes.
- As well as varieties in characteristics of conflicts, varieties in conflict reasons have an effect on selection of the conflict resolution method. For example, when the reasons are about the negative effects of LULUs, mitigation measurements

and considering externalities are proposed for minimizing conflicts. On the other hand, when the reasons include complaints such as distrust, inadequate information, weaknesses in meeting deadlines and politicization of issues, the solution strategies become procedural.

- For a smooth land use planning process, theoretical works propose strategies to minimize conflicts such as public participation and competent siting practices. Many scholars argue that successfully designed processes prevent some reasons of conflicts before they emerge. For example, when the land use plans are prepared by considering local level, the external effects of LULUs to local communities are predicted and prevented.
- The case studies prove the theoretical approach that an objective and technically competent planning processes could fail in dealing with conflicts. It is obvious that the siting procedures should fulfill the technical requirements; however, it is not adequate alone unless complemented with consideration of social criteria, public participation and learning, trust, equity and communication.
- The reasons of conflicts about LULUs are not only external effects including odor, pollution and dust, but also procedural deficiencies caused their opposition. People protesting LULUs criticized the top-down decision making processes in which they are not even informed. This conclusion supports the planning theories promoting the public involvement in the planning processes.
- Failed participatory attempts in case studies supported the theoretical emphasis on the need for success criteria in participatory processes. These criteria determined factors such as participation on an equal basis, jointly designed processes, balance of power between parties and inclusion of a neutral mediator or facilitator. Processes lacking these criteria failed in case studies. For example, the public meeting in EIA is seen as a formality serving for interests of companies. Another example is the participatory meeting for deciding potential sites for fisheries. A wide range of participators including public institutions, universities and private sector criticized the process in which they are included in the meeting but excluded in the decisions. No consensus is reached in neither of these attempts.
- The critique of negotiative planning about the risk of reaching agreements which satisfied only symbolic benefits of some groups because of threat and bias in the process is exemplified in the case studies. The solution attempts of quarry

companies in which they suggest gifts for villagers such as construction materials for roads and mosques solve only conflicts but fail in meeting the exact local interests. Besides, the powerful company owners threatening the headman not to protest the quarries do not solve any problems but only provide temporary quietness against private investments. Less powerful or low income groups taking part in consensus building process may be forced to accept the agreements. The source of this force may be not only the threats of powerful groups but also economic factors creating obligations in which low income groups have to accept money rather than the quality of environment. The thesis concludes that the consensus point should be rethought in decision making processes lacking power balances between parties.

Consensus between decision makers, private companies and affected local people does not always reach the best results. What if they agreed on a decision which is not sensitive to environment? What if there are no advocators for other species? The cases fulfilling the opposing interests and thus minimizing or resolving conflicts but lacking consideration of other species which can not fight for their rights may unlikely produce good planning decisions.

- There may be processes lacking the conflict minimization criteria or some unpredictable reasons may cause conflicts. In these situations, conflicts are resolved either by courts with conventional methods or by ADR processes. There are some strategies, rules or principles of ADR methods, mediation, negotiation, collaboration and consensus building in general; however, most of the LULU conflict situations require case based solutions. The issues affecting success of conflict resolution methods and general theoretical requirements should be complemented with site specific and case based issues.

Conclusions for the planning practice of 3 LULUs in İzmir:

- There is a wide range of conflict facing LULUs in İzmir. Opponents of some of them such as thermal plants are supported by people from various parts of the city, while some other LULUs such as rehabilitation clinics and refugee camps are opposed by a small group of people. While conflicts about some of them emerged once and resolved, some others remain unsolved. Remaining conflicts with intense disputes placed in media include the case studies of this thesis including solid waste facilities, fisheries and quarries. All these three LULUs

have different site selection processes; however, all of them faced with conflicts and opponents of all those criticized procedural deficiencies.

- Parallel to the theoretical conclusions, in the case studies locations of LULUs should be decided not only with technical criteria such as waste amount, deepness of water and slope, but also with criteria considering local level and social factors. The decision makers in solid waste facility case in İzmir proposes a facility with new technology and promotes the minimization of odor; however the opponents in the same case expected consideration and communication environment which enhances trust. In other two cases, opponents know that the technical details are considered in EIA processes; however they also claim that the promises of companies in EIA reports will not be controlled. Taking 'EIA is not needed' reports for low capacities and then increasing the capacity of LULUs is a specific problem of fisheries and quarries. When the company owners take 'EIA is not needed' report, they do not need to organize public meetings and thus the interests of local people are not considered in these cases. When they want to increase the capacity, they have to take EIA report and organize a public meeting, but the effect of mobilizing to prevent an investment at the beginning is not same with opposing to an additional capacity of an existing investment.
- The site selection process seems to continue causing conflicts in fishery and quarry cases. Especially the process about quarries calls for improvements. One of the main problems of site selection process of quarries is about regulations which allow mine companies to get licenses in anywhere with the only criterion of resource existence. The site selection process of quarries included long, tiring and expensive steps for private sector and the opinions of local people were taken after these steps. Therefore, investors of mining companies either tended to behave as reckless to the local protests as there had legal rights or wanted to prevent possible conflicts in public meetings of EIA process not to waste their previous efforts. In the second condition, they tried some compromising ways in which villagers gave up protests for the sake of getting benefits for their villages such as investments to their schools or mosques. While some local people took advantage of these gifts, some others rejected them and continued protesting. When the offers of mining companies were not worked, they tried to use forcing approach as in the first condition including threats according to local interviews.

They managed to make their investments sooner or later according to private sector with a reason that they are powerful actors. That means they face local protests sooner or later again.

- There should be a better control mechanism in Turkey in terms of EIA processes. Public institutions should control the fulfillment of the promises in EIA reports given by developers or investors. Lack of control causes lack of trust. Recent mine accident in Soma causing 301 deaths last month decreased the public trust to mining activities performed by private sector. Besides, punishments should be rearranged. The fees paid for broken promises are in some cases lower than the cost of taking precautions according to an interviewed engineer from a mining company. In such cases, companies prefer to pay for punishments rather than taking precautions.
- As well as punishments, the criteria in regulations should be rethought. A facility fulfilling the requirements in regulations does not mean it is proper and it has a right location.
- Recent changes in regulations limit the responsibility and rights of chambers in Turkey. With these changes, chambers could go to court with the aim of cancellation of plans if only there are technical problems such as inconsistency with existing plans and mistakes about the responsibility boundaries. They could not go to court with such a reason that the plan does not conserve trees. The underlying reason of this national policy is to minimize the obstacles against economic development. However, there is a need for groups fighting for other values of the country in addition to economic values. Indeed, the destruction of nature will have negative impacts on national economy in long term. Attempts of stopping opposing voices may minimize conflicts in short term but could not resolve actual problems.
- Conflicts about LULUs may enlarge and spread to countrywide when the opponents are not considered. Recent examples are movements against nuclear energy plants proposed in Mersin and Sinop, hydroelectric power plants in many cities such as Rize, Artvin and Muğla, and unwanted shopping center replacing a park in İstanbul. Conflicts should be managed when their level is low. Also, decisions should not be made despite the public rejection.
- Mediation process started to take part in interpersonal conflicts in Turkey; however, its improvement and inclusion of planning discipline is a need for

resolving public disputes about land uses. There should be formal and legal mediation processes in which planners can have a role as mediators to resolve planning process conflicts.

Methodological conclusions:

- Such a research examining the opinions of people taking part or being affected by planning process conflicts should be qualitatively designed. Numerical results are not likely to explain underlying reasons and driving factors of conflicts and contingent relations emerged from conflict resolution attempts.
- Similarly, using interviews in such researches facilitates understanding emotions and opinions indicated by facial expressions. Learning from written documents is not usually enough for studies examining such practices full of conflicts; therefore, learning from other people who take part in the actual process promotes the research and fills the information gaps.
- Researchers of planning should take into account practical experiences. Case studies facilitate understanding of such conflicts involving human interactions. Learning the lived experiences of planners in practice helps discovering actual difficulties depending on site specific and case based conditions.

Proposals for further research:

- It is possible to handle LULU conflicts by focusing on one case in much detail, like interviewing many opposing individuals rather than their representatives. Time constraints and scope problems can be eliminated by focusing on fewer cases and enables to collect much local data and opinions.
- A further study can compare conflicts of LULUs with protests on local level such as wind energy stations and LULUs protests on country level such as nuclear energy stations.
- A comparative study examining the same type of LULU from different cities can be meaningful.
- A study can combine qualitative and quantitative methods with an aim to propose a model for conflict resolution in a specific case. System dynamics modeling which deals with complex systems can be used in such a study.

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APPENDIX A

QUESTION SHEET OF INTERVIEWS

Görüşülen Arazi Kullanımı: **Görüşme No:**
Görüşülen Kişinin Adı: **Tarih:**
Görüşülen Kişinin Kurumu:
Arazi Kullanımının (Önerilen) Yeri (Y):

Bu görüşme İYTE Şehir ve Bölge Planlama Bölümünde hazırlanan "Yerelde İstenmeyen Arazi Kullanımlarının Planlama Süreçlerindeki Çatışmalar" konulu doktora tezinin araştırmasında kullanılacaktır. Görüşmenin amacı İzmir'deki çöp depolama alanları, taşocakları, balık çiftlikleri gibi arazi kullanımlarının planlama süreçlerinde yaşanan sorunlar hakkında görüşlerinizi almaktır. Görüşmemiz bilimsel araştırma amacı dışında kullanılmayacak ve kişisel bilgileriniz kimseyle paylaşılmayacaktır. Bu görüşme Y'deki çöp depolama alanları/ taşocakları/ balık çiftlikleri hakkındadır.

Yer seçimi süreci

1. Siz (bireysel ya da kurumsal olarak) Y'deki çöp depolama alanlarına/ taşocaklarına/ balık çiftliklerine ilişkin sürecin (yer seçimi, kararın protesto edilmesi, çözüm arayışı) hangi aşamasında/ aşamalarında yer aldınız?
2. Çöp depolama alanının/ taşocağının/ balık çiftliğinin Y'de yer almasına kimler nasıl karar verdi biliyor musunuz? Biliyorsanız açıklar mısınız?
3. Sizce bu yer seçim kararı doğru muydu? Neden?
4. Sizce yer seçimine karar verme yöntemi başarılı mıydı? Neden? (Katılımcı mıydı, adaletli miydi, vb.)

Anlaşmazlık süreci

5. Çöp depolama alanlarının/ taşocaklarının/ balık çiftliklerinin Y'de olmasına kimler karşı çıkıyor, kimler destekliyor? (Yerel mi dışarıdan mı? Örgütlü mü bireysel mi?)
6. Yaklaşık kaç kişi bu anlaşmazlıklara dahil olmuştur?
7. Çöp depolama alanlarının/ taşocaklarının/ balık çiftliklerinin Y'de olmasına kimler neden karşı çıkıyor? (Çevreye zarar, sağlığa zarar, vb.)
8. Çöp depolama alanlarının/ taşocaklarının/ balık çiftliklerinin vereceği düşünülen zararların yanısıra karşı çıkılmasını başka ne gibi faktörler etkilemiştir? (Bilgi eksikliği, siyasi sebepler, medya, güvensizlik, vb.)
9. Sizce karşı çıkılma sebebi yanlış yerin seçilmesi miydi, bu yerin yanlış yöntemle seçilmesi miydi, yoksa ikisi de etkili oldu mu?
10. Karşı çıkmayanlar neden karşı çıkmadılar? (Memnunlar mıydı, korkuyorlar mıydı, para mı almışlardı?)
11. Karşı çıkanlar tepkilerini nasıl gösterdiler? (Ne tür eylemler yaptılar? Dava açıldı mı?)
12. Çöp depolama alanlarının/ taşocaklarının/ balık çiftliklerinin Y'de olmasından vazgeçildiyse vazgeçilme sebebi eylemler miydi, başka şeyler miydi?
13. Bu sorunlu süreçte en çok hangi konular üzerinde duruldu? (Çevre, mülkiyet, katılım, vb.)

14. Bu anlaşmazlık sürecinden birileri zarar gördü mü?

Çözüm Süreci

15. Tarafların anlaşmazlıkların çözümüne yaklaşımları nasıldı? (Zorlayıcı, uzlaşmacı, vb.)
16. Karar vericiler anlaşmazlıkların çözümü için neler yaptılar? (Yüz yüze görüşme, tazminat teklif etme, vb.)
17. Sizce çözüm için karar vericilerin yaptıkları yeterli ve etkili miydi, değilse başka neler yapılmalıydı?

Tüm Süreç

18. Bunlara ilave etmek istediğiniz başka şeyler var mı?

Diğer istenmeyen arazi kullanımları

19. Diğer istenmeyen arazi kullanımlarının İzmir'in çeşitli yerlerinde yer seçiminde yaşanan sorunlara ilişkin düşünceleriniz nelerdir? (Termik santral, rüzgar enerjisi santralleri, gözetleme kuleleri, vb.)

Katılımınız ve katkılarınız için teşekkürler...

ENGLISH TRANSLATION OF THE QUESTION SHEET OF INTERVIEWS

Interviewed Land use: **Interview No:**
Name of the Interviewee: **Date:**
Institution of the Interviewee:
(Proposed) Location of the Land use (L):

This interview will be used in the research of the PhD Thesis with a subject "Conflicts in the Planning Processes of Locally Unwanted Land Uses". The aim of this interview is to take your perceptions on conflicts in planning processes of land uses such as solid waste facilities, fisheries and quarries in İzmir. This interview will not be used with aims other than scientific research and your personal information will not be shared with any people. This interview is about solid waste facilities/ fisheries/ quarries in L.

Site selection process

1. Which stage(s) of the process (site selecting, protesting decisions, finding solutions) of the solid waste facilities/ fisheries/ quarries in L did you (individually or institutionally) participate?
2. Do you know how the sites of solid waste facilities/ fisheries/ quarries in L are selected by whom? Could you explain if you know?
3. Do you think this site selection decision was right? Why?
4. Do you think the site selection method was successful? Why? (Was it participatory, just, etc.)

Conflict process

5. Who opposes and who supports the solid waste facilities/ fisheries/ quarries in L? (Are they local or external? Are they individual or organized?)
6. How many people are there in these conflict processes?

7. Why do which opponents oppose to the solid waste facilities/ fisheries/ quarries in L? (Damage to environment, damage to health, etc.)
8. What kind of factors affected the opposition in addition to the damages of solid waste facilities/ fisheries/ quarries? (Lack of knowledge, political reasons, media, lack of trust, etc.)
9. Do you think the reason of opposition is the selection of wrong site or wrong decision making method or both?
10. Why did the non-opponents not oppose? (Were they happy, threatened, got money, etc.)
11. How did the opponents show their responses? (What kind of meeting did they organize? Were there lawsuits?)
12. If the solid waste facilities/ fisheries/ quarries in L are cancelled, were the reasons of cancellations the movements or other reasons?
13. What were the main subjects of this conflict process? (Environment, property ownership, participation, etc.)
14. Was anybody harmed in this conflict process?

Conflict resolution process

15. How were the approaches of parties to conflict resolution? (Forcing, collaborating, etc.)
16. What did the decision makers do for resolving conflicts? (Face to face meetings, proposing compensation, etc.)
17. Do you think the attempts of decision makers for conflict resolution were sufficient and efficient? If not, what should be done?

Whole process

18. Would you like to add anything else?

Other LULUs

19. What do you think about the conflicts in site selection processes of other LULUs in various locations in İzmir? (Thermal plants, wind energy plants, watching towers, etc.)

Thank you for your participation and contributions…

APPENDIX B

LIST OF INTERVIEWS

Table 16. List of interviews

No	Institution of the Interviewee	LULU type	LULU case	Interest Group
1	İzmir Branch of the Chamber of City Planners	Solid waste facility, fishery and quarry	Solid waste facility in Harmandalı, quarry in Özbek, fishery in Seferihisar	NGO
2	İzmir Bar Association Environment Commission		All solid waste facilities, fisheries and quarries in İzmir	NGO
3	İzmir Branch of the Chamber of Environmental Engineers		All solid waste facilities, fisheries and quarries in İzmir	NGO
4	Provincial Directorate of Environment and Urbanism Directorate of Development and Settlements		All solid waste facilities, fisheries and quarries in İzmir	Public Institution
5	Provincial Directorate of Environment and Urbanism Directorate of EIA Services (3 people)		All solid waste facilities, fisheries and quarries in İzmir	Public Institution
6	Buca Kaynaklar Merkez District Headman Office	Solid waste facility and quarry	Gökdere - Kaynaklar	Headman office
7	Menderes Çakaltepe Village Headman Office		Çakaltepe	Headman office
8	Menderes Municipality		Menderes	Municipality
9	Bornova Municipality (2 people)		Gökdere - Kaynaklar, Pınarbaşı, Belkahve	Municipality
10	University (Ege Uni. Department of Aquaculture Production)	Solid waste facility and fishery	Solid waste facility in Harmandalı and all fisheries in İzmir	University
11	Harmandalı Cumhuriyet District Headman Office	Solid waste facility	Harmandalı	Headman office
12	Torbalı Taşkesik Village Headman Office		Torbalı Taşkesik	Headman office
13	Menemen Koyundere Cumhuriyet District Headman Office		Yamanlar	Headman office
14	İzmir Metropolitan Municipality Department of Development and Urbanism Directorate of Master Plans		Torbalı Taşkesik	Metropolitan Municipality

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Table 16 (cont.)

No	Institution of the Interviewee	LULU type	LULU case	Interest Group
15	İzmir Metropolitan Municipality Department of Development and Urbanism Directorate of Master Plans	Solid waste facility (cont.)	An alternative to Harmandalı (location is hided by the interviewee)	Metropolitan Municipality
16	İzmir Metropolitan Municipality Department of Development and Urbanism Directorate of Master Plans		Menemen and Harmandalı	Metropolitan Municipality
17	İzmir Metropolitan Municipality Department of Development and Urbanism Directorate of Master Plans		All existing and proposed solid waste facilities within Metropolitan Municipality	Metropolitan Municipality
18	İzmir Metropolitan Municipality Department of Environmental Protection and Control Directorate of Solid Waste Facilities		All existing and proposed solid waste facilities within Metropolitan Municipality	Metropolitan Municipality
19	İzmir Metropolitan Municipality İzmir Water and Sewerage Management General Directorate		Harmandalı and Yamanlar	Metropolitan Municipality
20	Torbalı Municipality		Torbalı Taşkesik	Municipality
21	Karşıyaka Municipality (2 people)		Yamanlar	Municipality
22	Çiğli Municipality		Harmandalı and Yamanlar	Municipality
23	Buca Municipality		Gökdere - Kaynaklar	Municipality
24	Torbalı Branch of Chamber of Commerce		Torbalı Taşkesik	NGO
25	Special Provincial Directorate Department of Construction Works and Development Directorate of Development and Urban Rehabilitation		Ödemiş Türkönü	Public Institution
26	Menemen Left Bank Irrigation Association		Menemen	Public Institution
27	Yağcılar Village Headman Office	Quarry and fishery	Quarry in Yağcılar and fishery in Sığacık	Headman office
28	Mordoğan Municipality		Quarry in Kösedere and fisheries in Mordoğan	Municipality
29	Karaburun Municipality		Karaburun	Municipality
30	Urla Municipality (4 people)		Urla	Municipality
31	Karaburun City Council		Karaburun	NGO
32	Çeşme Germiyan Village Headman Office	Quarry	Germiyan	Headman office
33	Kemalpaşa Ansızca Village Headman Office		Yenmiş	Headman office
34	Kemalpaşa Çambel Village Headman Office		Çambel	Headman office

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Table 16 (cont.)

No	Institution of the Interviewee	LULU type	LULU case	Interest Group
35	Pınarbaşı Kemalpaşa and Gürpınar Districts Headman Offices (2 people)	Quarry (cont.)	Pınarbaşı	Headman office
36	Bornova Gökdere Village Headman Office		Gökdere - Kaynaklar	Headman office
37	Kösedere Village Headman Office		Kösedere	Headman office
38	Özdere Ahmetbeyli District Headman Office		Ahmetbeyli	Headman office
39	Urla Özbek Village Headman Office		Özbek	Headman office
40	Urla Nohutalan Village Headman Office		Nohutalan	Headman office
41	Aliağa Çakmaklı Village Headman Office		Aliağa Çakmaklı	Headman office
42	Kemalpaşa Municipality		Kemalpaşa	Municipality
43	Aliağa Municipality		Aliağa Çakmaklı	Municipality
44	Private engineering and consulting office preparing permission projects of quarries and mines		All quarries in İzmir	Private Sector
45	Quarry Company		Pınarbaşı, Nohutalan, Aliağa	Private Sector
46	Quarry Company		Belkahve	Private Sector
47	Special Provincial Directorate Department of Health and Social Services Directorate of Licenses and Control		All quarries in İzmir	Public Institution
48	University (9 Eylül Uni. Department of Mining Engineering)		All quarries in İzmir	University
49	Karaburun Küçükbahçe, Salman and Parlak Villages Headman Offices and Union of Environment, Culture and Tourism of Karaburun (4 people)	Fishery	Karaburun	3 Headman office ve 1 NGO
50	Demircili Village Headman Office		Demircili and Sığacık	Headman office
51	Çeşme Ildırı Village Headman Office		Ildırı	Headman office
52	Karaburun Saip and Ambarseki Villages Headman Offices (2 people)		Saip-Ambarseki	Headman office
53	Seferihisar Sığacık District Headman Office		Sığacık	Headman office
54	Seferihisar Municipality		Sığacık	Municipality
55	Seferihisar City Council		Sığacık	NGO
56	Fishery Company		Demircili - Sığacık Bay	Private Sector
57	Fishery Company		Ildırı	Private Sector
58	Provincial Directorate of Ministry of Food Agriculture and Livestock Directorate of Animal Health, Production and Aquaculture Department of Aquaculture Production		All fisheries in İzmir	Public Institution
59	University (METU Department of Sociology)		Seferihisar Sığacık	University
60	University (Ege Uni. Department of Aquaculture Production)		All fisheries in İzmir	University

APPENDIX C

ADDITIONAL PHOTOS

Figure 125. Banners against solid waste facility in Harmandalı
(Source: H, 04.08.2013)

Figure 126. Children in solid waste facility protests in Harmandalı
(Source: M, 04.09.2012)

Figure 127. Fishery protests in Sığacık supported by famous actors and actresses
(Source: left photo M, 26.09.2010; right photo M, 10.06.2011)

Figure 128. Paulo Saturnuni, the father of the 'Citta Slow' philosophy signing to the 'No to Tunny Fisheries' campaign of Sığacık (Source: M, 03.12.2010)

Figure 129. Fishery protests in boats in Sığacık
(Source: left photo YA, 08.04.2012; right photo M, 09.04.2012)

Figure 130. Protests against quarries in Germiyan supported by NGOs
(Source: An interviewee from Germiyan)

Figure 131. Quarry protests in Nohutalan and Germiyan
(Source: left photo H, 18.09.2008; right photo M, 09.11.2008)

Figure 132. Quarry and fishery protests together in Germiyan
(Source: An interviewee from Germiyan)

Figure 133. Villagers wearing traditional scarf in quarry protests in Germiyan
(Source: An interviewee from Germiyan)

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EDUCATION

2009 – 2014 **Ph.D. in City and Regional Planning**
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