

**MASTER'S PROGRAMME IN URBAN MANAGEMENT
AND DEVELOPMENT**

(October 2004 – September 2005)

**Assessment Tool to Assure Spatial
Planning for Quality Urban Housing**

Angelica M. Castro K.
Peru

Supervisor: Rachelle Åstrand

UMD 1 - 46
Lund, September 2005

Table of Contents

Chapter 1 Introduction

1.1 Explanation.....	1
1.2 Research Problem.....	2
1.2.1 Research Objectives.....	2
1.2.2 Research Questions.....	3
1.2.3 Research Scope.....	3
1.3 Methodology.....	4
1.4 The Assessment Tool.....	5
1.5 Organization of the Thesis.....	6

Chapter 2 Theoretical background

2.1 Background Information.....	7
2.2 Spatial Planning	8
2.2.1 Spatial Planning and Urban Design.....	8
2.2.2 Urban Design and Quality of Life.....	8
2.2.3 The Relevance of Urban Design among Housing Policies.....	9
2.3 Partial Approaches on Implementing Spatial Plans.....	9
2.4 Holistic Approaches on Implementing Spatial Plans.....	10
2.5 Spatial Planning and Good Quality Housing in The Netherlands.....	11
2.5.1 A Hundred Years of Housing Policies in the Netherlands.....	11
2.5.2 The Fifth National Policy on Spatial Planning.....	12
2.5.3 Strategies to Achieve Quality in Housing.....	12
2.6 Assessment of Residential Projects toward Policy Goals.....	15
2.6.1 Assessment of Residential Projects.....	15
2.6.2 Housing Evaluation in the Netherlands.....	16

Chapter 3 Implementation of the Fifth National Policy on Spatial Planning in the Netherlands

3.1 Case Study: The Carnisselande Project.....	17
3.1.1. The Urban Planning Process.....	18
3.1.2 The Urban Design Proposal of Carnisselande.....	19
3.1.3 The Achievement of Spatial Quality.....	21
3.1.4 Verification of the Achieved Spatial Planning Guidelines in Carnisselande.....	23

Chapter 4 The Assessment Tool

4.1 The Concept of the Assessment Tool.....	28
4.1.1 The Purpose.....	29
4.1.2 The Users.....	29
4.1.3 The Criteria.....	29

4.1.4 The Indicators.....	30
4.1.5 SWOT Analysis.....	31
4.1.6 The Steps.....	31
4.2 Developing the Assessment Tool to ensure Quality.....	32

Chapter 5 Conclusions and Recommendations

5.1 General Conclusions toward Spatial Planning and its relevance on Residential Projects.....	41
5.2 The Assessment Tool for Achieving Quality.....	41
5.2.1 Significance on Urban Projects.....	42
5.2.2 Collection of Proposed Indicators.....	42
5.2.3 Applicability on Other Context.....	43
5.2.4 Limitations.....	43
5.2.5 SWOT Analysis.....	44
5.2.6 General Recommendations.....	45

Bibliography / References.....	46
Annexes.....	49

Summary

Spatial planning considerations are crucial in the development of housing policies. They assure positive impacts by providing suitable, tuned to context, and sustainable solutions for the housing problem. Residential projects are perhaps the most tangible product of housing policies; they are meant to be the scenario where people develop their life. The physical aspects of these projects influence the functionality of the living atmospheres they create, and in that way they determine the quality of life of their residents.

Nevertheless the decisive influence that residential projects have in providing quality of life, and the high investments of resources they demand for their construction, the majority of these projects only account with their own physical implementation as the only model available for measurement. Consequently, when this measure takes place, it is far too late to prevent excessive costs or negative effects that could be predicted.

This research proposes an Assessment Tool to provide housing policy implementers with a pre-implementation tool to guide the planning and designing processes of residential projects. The tool assures the application of policy guidance while it creates pro-active discussions during the planning stage of the projects. In this way, the tool allows selecting the more convenient physical measures to apply, based on a deep consideration of their possible effects. Subsequently, the investments made will have the expected results, and quality of life will be offered through tuned to context housing projects.

A complex and multi sector aspect such as housing, does not allow providing determinant advice toward the implementation of certain physical measurements. Therefore, the contribution of the tool consists in assuring a deep reflection before implementing these measures. Consequently, passive attitudes in the process of formulating housing projects and the reliance in habitual non-appropriated measures will be avoided.

The formulation of the tool was based in the Netherlands experience toward implementing policies focused in a qualitative approach; offering an ideal scenario for the research that revealed a variety of physical considerations, and consisted of a basis to develop the tool. Nevertheless, the tool is meant to be applicable in other contexts, as long as the residential projects have a qualitative focus, and adjustments are done to the tool. Besides that, the only approach to achieve the purpose of the tool is that its users should have an impartial and objective participation.

Acknowledgement

This thesis is the result of a long working period, many people have contributed and supported its development. I do thank my supervisor Rachelle Åstrand for her excellent professional guidance, and dedication. Thanks to my co-supervisor Claudio Acioly for his accurate professional advice and contribution, especially to the fieldwork.

I also express thanks to the staff of HDM, for given me the opportunity to learn from them. And finally I express my sincerely appreciation and thanks to the staff from IHS for the continue supporting labour, and the professional advice.

Chapter 1 Introduction

1.1 Explanation

A spatial plan is a physical strategy of the integral perspective that governments have toward development; it responds to particular needs of a country, and it should direct the growth of diverse sectors toward common welfare. The plan influences people, activities, and spaces indifferent scales. With respect to the housing sector, a spatial plan is the framework within a housing policy that should be created; the correct interpretation of the guidelines of a spatial plan at a local level context would assure the accuracy and sustainability of the policy.

In the last decades, the implementation of the guidelines of Latin American plans have been politically and economically influenced; determining the proposal of out of context housing policies. Alan Gilbert, gives a broad explanation referred to the principles that Latin American countries have adopted for developing its urban areas in his article Housing in Latin America (2001), he emphasized a lack of tune between the reality of the countries and the approaches adopted. Latin American countries have a high deficit of qualitative and quantitative houses; the lack of adequate spatial plans is evident through the implementation of out of context policies; characterized by simplistic approaches focused only in reducing quantitative deficits. Nevertheless, these policies have shown economical benefits; based on these partial benefits, and in the search for popularity and rapid economical results, governments still implementing these policies without a deep reflection on their negatives effects. The results of these policies do not show the accomplishment of the proposed goals, while not only failing to solve the housing problem in a sustainable approach, but also generating problems in the other related sectors.

For instance, the housing problem in Peru has an urgent character; the high housing deficit proportions causes serious negative implications to the living condition of its population. As an attempt to solve this problem, in the year 2002, the Peruvian Housing Strategic Plan (PHSP) was launched with a focus on reducing a high quantitative deficit¹. The plan has had economical and political achievements that make it tempting to divert to focus on the negative impact of the unplanned allocation of a relevant number of houses in the layout of Lima. The implementation of the PHSP does not reflect concrete spatial plan guidelines, which would have set the strategic locations of the houses proposed, assuring quality of life to the new residential environments while allowing the adequate growth of the city. Instead, the urban atmosphere is declining because of growing problems of accessibility, infrastructure, pollution, and maintenance; causing negative effects in social, economic and environmental aspects. The implementation of the plan is encouraged by reports that focus in the positive economical impacts², but they fail to take into consideration aspects related to urban design and its consequences to the city. Spatial plans are vital to strategically guide the formulation of housing policies. The accurate implementation of their guidelines given at a national level into physical proposals at a local level is a main challenge that determines the achievements of the proposed goals of the policies.

Housing policies have direct effects in different sectors and influence economic, social, cultural and environmental aspects, it is important to consider these diverse aspects, and have an integral perspective toward the implementation effects that a policy could cause, in the aim to select the more convenient implementation strategies.

¹ According to Ministerio de Vivienda, Construcción y Saneamiento (Peru), the quantitative national deficit for the year 2002 was 1'230,000 houses.

² According to Mivivienda (Peru), the public institution in charge of financing social housing, during the period between the years 2000 and 2004, the private construction increased from less than 5 to 80 and the percentage of placements to the GDP referred to the construction sector increased from less than 1 to 5.

1.2 Research Problem

Housing policies that do not reveal tuned to reality guidelines of spatial plans not only have failed to improve the housing conditions, as in Latin American contexts, but also have generated different social, economic, and environmental problems. Following the guidelines of spatial plans is relevant to increase the positive impacts of housing policies while tuning the perspective that governments have toward the integral development of a country with tailored measures that respond to specific needs and conditions of its population. In this sense it can be stated that housing policies have multi sector effects that are determinant in the process of development of countries.

The decision of governments toward continuing the implementation of out of contexts housing policies is commonly based exclusively on economical perspectives³; economical reports usually show benefits to the economy while having positive impacts focused in the construction industry through massive construction projects, but the reports leave behind the impact of these projects on other sectors. Since the housing problem has a multi sector character, it is necessary to go further than just conduct economical assessments, and analyse the complex impacts of housing policies from integral perspectives in other aspects beside the economical. The physical aspect, which is directly linked to urban design, is a relevant aspect to consider in the process of achieving quality of life while assuring the appropriate growth of cities in the search for common wealth fare.

With this respect, it can be concluded that every urban intervention especially the ones relating to the housing sector must be linked to the guidance of a spatial plan in order to contribute to the integral development of a country. Moreover, the process of deciding the implementation strategy of this plan has to be base on an integral perspective; with a deep consideration of the effects on the diverse sectors that the policies influence toward the goals of the policy.

European countries have recognized positive experiences in the application of spatial planning guidelines in the process of development of their cities that started a hundred years ago. The Netherlands case offers concrete approaches in solving housing problems through tailored policies synchronized with spatial plans that have achieved many integrated positive effects among different sectors. Currently the country accounts with a qualitative housing deficit that is being tackled through the implementation of the Fifth National Policy of Spatial Planning. Criteria implementation is already being showed through an intense construction of residential projects that reveals a blooming physical outcome because of the local implementation of the guidelines of the policy, and provides an ideal scenario for the purpose of this research.

1.2.1. Research Objectives

The main objective of this research is to develop an Assessment Tool to assure the application of spatial planning guidelines directed to tackle a qualitative deficit in the housing sector in reference to a local level context.

³ For the case of Peru, Reports made by Ministerio de Vivienda, Construcción y Saneamiento (Peru) can be found at: <http://www.vivienda.gob.pe/Logros.pdf>
Reports made by Fondo Mivivienda (Peru) can be found at: <http://www.mivivienda.com.pe/Estudios/Estudios.asp>

The research has also considered the following secondary objectives:

- Determine the relevance of spatial planning in the physical proposal of urban housing projects for expansion in the Dutch context under a focus on quality
- Identify the criteria for spatial planning that is relevant for urban housing
- Identify the implication of the Fifth National Spatial Planning Policy in the housing sector
- Identify tools for assessing the physical implementation of housing policies in residential projects for expansion
- Find learning lessons related to the physical outcome of the implementation of the Fifth National Policy on Spatial Planning of the Netherlands
- Analyse a housing project built under the guidance of the Fifth Policy on Spatial Planning which reveals physical measurement that contribute to achieve quality
- Determine spatial planning measures that have been relevant for benefiting the quality of project; their basis, implementation, and results

1.2.2. Research Questions

In order to explore the relevance of the Fifth National Policy on Spatial Planning of the Netherlands in urban housing, the following questions have been set:

- How to verify if the spatial planning guidelines are achieved in a residential project at a local level?
- What is the relevance of spatial planning in achieving quality at the public urban housing projects in the Netherlands context?
- What are the criteria of the Fifth National Policy on Spatial Planning for achieving quality in the urban housing sector?
- What is the physical outcome of the policy concerning urban housing?
- Which are the criteria for spatial planning measures in urban housing?
- How are the criteria physically being implemented?
- What are the implications of the criteria in the urban houses?

1.2.3. Research Scope

It is important to stress that the physical exploration that the research has conducted was not meant to determine the integral relevance of the Fifth National Policy on Spatial Planning in residential projects. Especially when it is related to a multi sector policy as in this case, social, cultural, and economical factors among others are directly linked to the achievement of adequate urban proposals, and it is necessary to consider them. However, the intention of developing this physical exploration was to discuss the implementation of the policy, and reveal local interpretations of the criteria with respect to the design and planning processes of residential projects.

Because of time constraints in the fieldwork the analysis of the research was just focus on one residential project under the framework of the Fifth National Policy on Spatial Planning.

Although the study achieved interesting results, it can not be considered as a determinant measure of the general implementation of the housing policy nor the implementation of the Fifth National Policy on Spatial Planning.

The limited access to English materials related to the topic has determined that the study is based in summarized English versions referred to Dutch policy documents, and reports.

Nevertheless, this study can be regarded as a basis for further researches under the framework of this topic.

1.3 Methodology

This research focused on the observation of the ongoing Fifth National Policy on Spatial Planning. It has an exploratory and analytic character, and aims to reveal the physical implementation of the policy and its influence on the quality of residential projects. The implementation was observed by analysing the case study Carnisselande.

The methodology is based on direct observations on Carnisselande, desk studies, and interviews with decision makers, architects, and residents. The desk research covered a literature review focused on spatial planning, housing policies, and the evaluation of residential projects.

Quantitative and qualitative data have been used, the quantitative data is based on reports, policy documents, and technical information about Carnisselande provided by Wissing bureau⁴, the qualitative data was collected through interviews and observations.

The methodology used to achieve the objectives of the research involved the following steps:

- 1) **Definition of Spatial Planning**
In the look for accomplish its objectives, the research deals with subjects related to spatial planning, housing policies, and the evaluation of residential projects. A theoretical framework referred to these concepts was elaborated to lead the research process.
- 2) **Literature Review**
A search for material related to spatial planning, housing policies, and evaluations of residential interventions was conducted; a selection of specific material strictly linked to the topic and the objectives of the research was combined with material referred to the policy documents on spatial planning, and the housing sector in the context of the Netherlands.
- 3) **Application of the Criteria of Spatial Planning in the Urban Housing Context**
A review of the Fifth National Policy on Spatial Planning, and other policies that direct its implementation on the Housing sector was conducted in order to determine criteria, which have influenced the physical proposals in residential projects.
- 4) **Assessment Tool for Spatial Planning Criteria at the Urban Housing Context**
After a revision of many documents related to conduct evaluations of policies, the Sida manual was considered the more suitable document to be taken as a point of reference to develop the Assessment Tool proposed.
In order to collect data for the development of the tool, on site observations, questionnaires and charts concerned to reveal physical aspects of the project and their contribution toward achieving spatial quality were made.
- 5) **Selection of the Case Study Carnisselande**
Based on the literature review, the search begun while looking for a residential project constructed under the framework of the Fifth National Policy on Spatial Planning, this determined that the project should be in a Vinex location. The resources available, and the findings of the author, were determinant to the final selection of the project.
Carnisselande, an expansion project at the south of Rotterdam, built under the Fifth Policy on Spatial Planning was selected based on different reports that analysed its achievement of quality.

⁴ Wissing bureau is the studio that produced the urban design proposal for the area of Carnisselande that belongs to Barendrecht community. The area that belongs to Albrandswaard community was designed by Ashok Bhalotra.

- 6) Interview with Actors of the Project
The actors involved in the conceptualization and construction process of Carnisselande have been interviewed: the supervisor of the project, architects from Wissing bureau involved in the planning and designing stages, the administrative staff of the project, the government authority of Barendrecht. The residents of Carnisselande were also interviewed.
- 7) On site Observations to Check for Spatial Planning Evidence
Several onsite observations to Carnisselande for analyse its actual stage, and verify the implementation of the policies were made. The opinion of the residents was considered through interviews that allowed knowing their perspective toward the physical outcome of the criteria. This process has allowed the research to determine significant physical measures that have contributed to achieve quality in the project.
The on site observations were conducted around the whole Carnisselande area, but had a particular emphasis on the selected area named as Riederhoek.
- 8) Data Analysis
With the result of the observations, and supported by the theoretical framework and the findings of the interviews; an analysis of the implementation of the policy criteria and the real condition of the project have been made. It was determined that the physical characteristics of the project allowed accomplishing the expectances that the criteria of quality spaces have set.

1.4 The Assessment Tool

Urban housing projects demand high investments of resources; nevertheless, the majority of these projects account with their own physical implementation as the only model available for measurement. When this measurement takes place, it is far too late to prevent excessive costs and negative effects that could be predicted. This fact reveals the importance that the Assessment Tool proposed in this research has in respect to residential projects.

The formulation of the tool was based in the Netherlands experience toward implementing policies focused in a qualitative approach. The purpose of the tool is to provide local governments and its partners in charge to develop qualitative focused proposals for residential projects with a pre implementation tool to guide the planning and designing processes. The tool was tuned to the Netherlands context, which in this research was considered as an ideal scenario that reveals a variety of qualitative considerations that were listed in the tool, and were physically observed in the Carnisselande project.

Nevertheless, the tool is meant to be applicable in other contexts, as long as the residential projects have a contemporary urban scale and are focus in answering a qualitative demand. For this matter, it has being considered that every step of the evaluation process is linked to the reality context of the project that is being evaluated; assuring tuned proposals, and recommendations toward its application in other context are given.

1.5 Organization of the Thesis

The research is organized in five chapters. Then, a brief description is presented in order to provide the readers with a general idea of the subjects discussed.

The first chapter begins with an explanation of the concept of spatial planning, and its relevance on housing policies. An introduction of the spatial planning problems that justifies the objectives of the research is then given, and the purpose and limitations of the research are presented.

The chapter also relates the methodology that has led the research to achieve its objectives, and concludes with a brief definition of the Assessment Tool proposed. Afterwards the organization of the thesis is also described in this chapter in order to have an overall conception of the aspects concerning to this research.

The second chapter offers the theoretical background information referred to experiences with spatial planning and the housing sector; the relevance of spatial planning guidelines in achieving quality at residential projects is also stressed. Then, the concepts of spatial planning and in particular the experience of the Netherlands are set as a framework to the research, and are complemented by concepts related to project evaluations.

The third chapter discusses the implementation strategy of the Netherlands for achieving quality in the housing context. The residential project Carnisselande, built under the framework of the Fifth National Policy on Spatial Planning, is then presented as a model for analysis, in order to verify the implementation of the policy and reveal physical measures that have allowed achieving quality. These measures have been considered as a basis in the development of the Assessment Tool.

The fourth chapter is dedicated to the Assessment Tool; a definition of concepts referred to evaluation is provided, and the characteristics of the tool are given. Afterwards, the process of developing the proposed tool is explained, and the parameters of its applicability are discussed.

The fifth chapter is devoted to the conclusions toward the findings of the research, and in particular, to the Assessment Tool, recommendations toward the use of the SWOT analysis and the application of the tool in other context are offered.

Chapter 1 has introduced problem of out of context housing policies that result from the lack of consideration toward spatial plans, and have emphasized the need of an integral perspective toward deciding the implementation of housing policies. The objectives of the research in concern of the problem have being set. Chapter 2 will develop a theoretical background related to spatial planning; its relevance in the housing sector and will explain the particular case of the Netherlands toward solving its housing problems.

Chapter 2 Theoretical background

The present chapter starts with background information that is meant to lead the definition of the spatial planning concept, theoretical references are provided, and an overview among international experiences and their relevance in the housing sector is conducted. Problems generated because of the lack of guidance of Spatial Plans, and positive effects that European countries have experimented toward solving housing problems are discussed. The particular case of the Netherlands with its actual qualitative implementation approach of the Fifth National Policy on Spatial Planning is described. Afterwards, spatial plans, urban design and their influence in achieving quality of live while influencing the housing policies are explained. Finally concepts referred to evaluations, their application, and relevance toward the housing sector are described in the particular context of the Netherlands.

2.1 Background Information

It is necessary to stress that the intention of the research while exposing a particular case is not to provide a standard solution to the housing problems of all countries. Indeed, an important cause of the failure of Latin American countries in solving their housing problems is that their policies are completely influenced by policies of developed ones; they are not tuned to their realities. Alan Gilbert has already stressed his concern toward this fact, assuring that “*Latin American societies should question some of the foundations on which their urban areas are being built. Certain tendencies, not confined to Latin America are contributing to distinctly problematic future*”.

Nevertheless, in the search for solving housing problems, this research considers that it is constructive to look at the extensive experiences of Europe while studying Spatial Plans. For instance, it can be mention the fact that Europeans capitals were the first to elaborate spatial strategies for solving slums problems when during the 19th century, cities as London and Paris experienced unplanned growths (Rihs and Katell, 2001). In addition, during the post war period, Spatial Plans played a key role in the process of rebuilding entire destroyed cities around Europe.

Nowadays, after more than a hundred years of experimenting with spatial plans that have helped their development, European cities are in an intense competitive process for becoming centres of commerce, culture, and social activities. This goal of becoming centres of development, has determined accuracy on proposing spatial plans for achieving strategically formulated policies for integrated development that is useful to discuss while studying the relevance of spatial planning in the housing sector. The strategies of the cities are based on offering quality of life, and the housing sector plays a fundamental role in this purpose which is meant to attract a variety of benefits and assure economical prosperity.

2.2 Spatial Planning

Based on the positive European experiences toward solving their housing problems through the application of spatial planning guidance, the definition of R. Williams (1996) from his book “European Union Spatial Policy and Planning” that defines Spatial Planning as the “*technique or art of influencing people, activities, and spaces in different scales; urban, regional, national and international*”, and was selected as a conceptual base. Because of their multi sector character, housing policies are also linked to the allocation of people, activities and space. For this reason, a direct relationship between Spatial Planning guidelines and the formulation of housing policies should be considered. For the purpose of this research, it is necessary to complete the definition of Williams, stressing that in this process, governments play a key role while defining the better strategies for development and directing them toward achieving common wealth fare.

In the case of The Netherlands, the Ministry of Housing, Spatial Planning and the Environment (VROM), responsible for the development of the National Spatial Plan, stresses that “*Spatial Planning helps ensure strong cities and vibrant rural communities; its definition of government policy must safeguard important national and international values like nature, landscape and cultural history and increase public safety while at the same time allowing space for development*”.

Based on the given concepts, it can be stated that a spatial plan is the physical strategy of the integral perspective that governments have toward development; it responds to particular needs of a country, and it should direct the growth of different sectors at different scales toward common welfare. In this sense, it can be stated that a spatial plan is the framework within a housing policy that should be created, and therefore, the correct interpretation of the guidelines of a spatial plan at a local level would assure the accuracy and sustainability of the policy.

2.2.1 Spatial Planning and Urban Design

Spatial Plans are made in a national context; their development involves diverse scales of implementation, and different kinds of planning disciplines account for formulating tuned proposals. According to Adams D. (1994), at a smaller scale of spatial planning, urban, city, or town planning deals with the design of the built environment from the municipal and metropolitan perspective. In this sense, residential issues are included in this scale. Adams also clarifies that urban design goes further than urban planning; it deals at a more practical tuned scale with urban issues; designing of public spaces and elements of architecture, providing a general framework for collective building development, and taking into consideration elements that condition the design as the users perspective, construction materials, and sustainability issues. For the observing the physical outcome of the Fifth National Policy on Spatial Planning in residential projects, the research has focused in analysing urban design proposals.

2.2.2 Urban Design and Quality of Life

Most of the contemporary spatial planning strategies among European countries are based in offering quality of life⁵ for ensuring the correct development of its cities.

Based on the previous description of the competition process among European countries, it can be asserted that the concept of quality of life involves offering residents a particular area

⁵ The European Foundation for the Improvement of Living and Working Conditions affirmed that “...the notion of ‘quality of life’ links living and working conditions in one holistic concept...”, and defines Quality of life as “a broad concept concerned with overall well-being within society. Its aim is to enable people, as far as possible, to achieve their goals and choose their ideal lifestyle.”

attractive for housing, employment, services and transport, complemented by a range of social, community and leisure facilities. According to this state, the importance of urban design is based on its contribution to achieve quality of life while benefiting economic, social, and environmental aspects that involve a project in a sustainable approach; leading to many positive effects to the life of its residents, not only in terms of housing solutions but also in terms of the living atmosphere.

2.2.3 The Relevance of Urban Design among Housing Policies

A research from Bartlett School of Planning (2001)⁶, suggests that “...good urban design brings very specific economic, social and environmental benefits to a range of stakeholders, such as improving returns on investments, reducing whole-life costs, increasing workforce productivity and producing a regeneration dividend...”. Besides the economical contributions of urban design, with respect to the housing sector, it can be mention that it assures to develop an accurate growth of the city through integrated proposals maximizing the use of resources. For example by proposing higher densities, and supporting mixed-uses many social problems can be reduced. Furthermore, it also allows achieving quality of life through offering quality spaces, and places and buildings with identity, good image, which also account with reduced management, maintenance, energy and security costs.

Social and environmental aspects can also be enhanced through urban design while creating well connected, inclusive and accessible places that account with facilities for all, where aspects such as urban heritage, sense of identity, positive image, sense of safety, and comfort are promoted.

2.3 Partial Approaches on Implementing Spatial Plans

The importance of linking Spatial Plans to Housing policies in the look for guidance to assure tuned to reality policies, has being already stated. Unfortunately, Latin American policies are an example of the negative effects that the neglect of this link or its partial consideration can cause. In the last decades governments have invested time and resources in trying to combat the housing problem through policies summed as, out of context, and simplistic approaches directed to decrease only the quantitative deficit through out of quality mass building programs that fail to consider the real multi sector magnitude of the problem, and instead are based only on specific aspects such as political or economic. The high levels of inequity of Latin America are reflected in the spatial conception of its cities where the poor have not been properly considered, and as a result have limited access to houses, infrastructure, and services. The unsolved housing problem is directly linked with negative impacts in social, environmental, economic, and health sectors of the countries. Alan Gilbert discusses the inappropriate approaches of these housing policies in his article Housing in Latin American (2001) and suggests that Latin American societies should question some of the foundations on which their urban areas are being built. Gilbert assures that certain adopted tendencies are not confined to Latin America reality and instead they contribute to generate problems.

The case of Peru is an example of this fact. The country has the highest qualitative housing deficit among Latin American⁷, and has a second place referred to quantitative deficit.⁸ In 2002, the Peruvian Housing Strategic Plan (PHSP) was launched to reduce the quantitative deficit of

⁶ CABE and DETR (2001) *The value of urban design*, a research project commissioned by to examine the value added by good urban design, England

⁷ Source: Comision Economica para America Latina (CEPAL) 1996

⁸ The quantitative deficit equals the difference between the number of households and the number of permanent homes. The qualitative deficit equals the proportion of houses not supplied with drinking water

1.23 million houses. The plan has had a key role in recovering the economy of the country, while reactivating the construction industry, and involving the private sector in a massive construction approach centralized in Lima. The initial positive economical impact of the plan makes it very tempting to divert from focusing on its impact in the urban housing context. The unplanned allocation of thousands of new houses in the layout of Lima, have shown negative effects to the urban atmosphere while causing problems of accessibility, infrastructure, pollution, and maintenance, with implications in the social, economic and environmental aspects. Nevertheless, private and governmental agencies elaborate economical positive reports of the achievements of the PHSP based only on its effects on the construction industry, and promote its implementation without reflecting toward the negative effects that its lack of qualitative approach means to the growth of the city⁹. The implementation of the PHSP does not reflect integrated Spatial Plan guidelines, which would have set the strategic locations of the houses proposed, assuring quality of life to the new residential environments while allowing the adequate growth of the city.

2.4 Holistic Approaches on Implementing Spatial Plans

This research considers that it is important to look at European experiences when analysing spatial planning in the search for solutions to housing problems because of their positive achievements while developing cities. Just to mention some experiences, European capitals were the first to elaborate strategies to combat slums (Rihs and Katell, 2001), when cities such as Paris, experimented unplanned and non-proportional growth. Urban planning was actively tested also after the war period, when many cities remained completely destroyed, and an intense period of reconstruction where the supply for housing was the main concern of governments took place.

Nowadays, after more than one hundred years of urban planning intensive practices, researches in the document “From design policy to design quality”, explains how in most European countries large scale but detailed land use plans set out the future patterns of land use and define the nature and location of major infrastructure investments. These plans provide both a framework for private investment decisions and a mechanism for the conservation of key natural and built resources. An integral approach is the main structure of these plans, where economical targets are strategically achieved and at the same time benefit physical, social, and environmental aspects. Since the nineteenth century, European cities started an intense competitive process for becoming centres of commerce, culture, and social activities. Barcelona, Malmo, Rotterdam, and other cities, have based their strategies in offering quality of life in the search for attracting a variety of activities and benefits, and assure economical prosperity for the areas. Due to this competence, new urban planning policy trends have been tested in all over Europe¹⁰.

With respect to residential projects, many districts have become living exhibitions for showing the physical results of what governments are promoting as good strategies for achieving their ideal living environments; consisting in integral solutions for the housing problems, where not only the quality of dwellings have being considered, but also the environmental aspects and its repercussion on the economical, social and cultural aspects. These districts bring many

⁹ Reports from Ministerio de Vivienda, Construcción y Saneamiento, Peru, can be found at: <http://www.vivienda.gob.pe/Logros.pdf>

Reports from Fondo Mivivienda, Peru can be found at: <http://www.mivivienda.com.pe/Estudios/Estudios.asp>

¹⁰ The European Cultural Portal, (<http://europa.eu.int/comm/culture/index.htm>), refers to the policies carried out by the European Union as “...It is evident that architectural design has been utilized as a signature to champion the economic and social regeneration of many European cities...”

interesting solutions in the search for quality of housing and spaces, and for sustainable solutions for assuring quality of life to the residents.

2.5 Spatial Planning and Good Quality Housing at The Netherlands

Among European experiences, the Netherlands case is a focus of this research because of its last decade experiences; the country has been implementing quality policies toward solving its housing deficit through integrated approaches. Nowadays the country experiments an intense process of residential construction with a strong support of the government, and the participation of the private sector. The results of its policies are being shown through a variety of new housing projects among strategically appointed areas, which according to several reports are succeeding in answering the present demand for quality.¹¹

2.5.1 A Hundred Years of Housing Policies in the Netherlands

The National Spatial Policies in the Netherlands began with The Housing Act of 1901. The first three national policies focussed in the modernization of the country. Specially after the war period an intense reconstitution process, where housing demand had an urgent character led the direction of the policies through strategies focused on offering the growing population modern residential districts with accessibility options to commercial, industrial and seaport areas, and good balance between urban and rural environment. The third policy stressed the importance of urban quality, particularly in the renewal process of the deteriorated post war buildings.

The qualitative focus policies started through expansion projects on the framework of the Fourth National Policy on Spatial Planning¹² (1990), the policy focussed on the quality of space and the environment. Clear concepts and proposals for municipalities, provinces and the private sector were launched among an economic environment that had to be promoted, and when the international competition between European countries started. The strategies were concerned to emphasize the contrast between urban and rural environment, promoting a variety of urban scenarios, using high density standards, and conserving green areas. In the particular aspect of housing, an emphasis was considered in attractive private and common urban spaces and buildings; major residential projects were promoted in the Vinex locations. These locations are expansion areas strategically appointed by the government, under premises to control urban development, assure economical prosperity, offer good accessibility, conserve the natural environment, and apply combinations of uses.

As VROM affirmed, “...even the urbanisation policy was well adjusted to demand, it did not succeed in completely satisfying the growing demand for quality...” the achievement of quality among its residential projects is a matter of discussion. F. van der Meer and J. Edelenbos (2002), expressed the failure of the fourth policy after conducting reports and inspections that concluded that a relevant number of developing areas and expansion projects were not altogether a success.

Although the government had a strong support toward these projects, efforts and resources were spent without achieving the main goals of the fourth policy. Therefore, the Fifth National Policy on Spatial Planning was launched in the year 1999, based on renewing and intensifying the attention to quality. For this matter, the specific demands of the citizens were considered as an initial point for developing the policy. Subsequently the strategy was based on reports, consultations and discussions between VROM, citizens, and market parties. At the same time, the policy

¹¹ RIGO Research en Advies BV, 1999. “Vinex-kwaliteit door de ogen van bewoners”

¹² For practical matters this research will refer to the Fourth National Policy on Spatial Planning as the Fourth Policy.

supported by housing experts that elaborated the document “Housing Survey Needs” (1998), where it is affirmed that “...*Dutch housing stock and residential environments no longer satisfies contemporary requirements ...*”. As an answer to this demand, the Fifth National Policy on Spatial Planning put forward concrete suggestions referred to changing the characteristics of the residential projects proposed under the four policy.

2.5.2 The Fifth National Policy on Spatial Planning

The Fifth National Policy on Spatial Planning¹³ was launched among a process of decentralization; the central government empowered local authorities with the purpose of better tackle their substantial problems with tuned to their reality options for development. In this sense, it was determined as a responsibility of local authorities, to satisfy the specific demands for housing of its citizens. The policy let the regions draw up their specific spatial perspectives under a national framework; the provinces, urban regions and municipalities process them into decentralised spatial programmes, and local authorities tune the regional perspectives and the decentralised spatial programmes into regional plans, zoning plans, and regional structure plans. As a result, the provision of housing is managed by local authorities, through the proposal of the number, type and specific locations of the houses for their contours, according to their own aspirations of development.

The policy document, *What People Want Where People Live* (VROM 2001) also remarks the need for a qualitative approach proclaiming that “*after one hundred years of housing policies, the Netherlands has overcome the acute housing shortage that for so many decades determined the Dutch housing policies; now, more attention can be devoted to aspects of quality in housing*”. The demand for quality housing appeared because of the existence of post war projects that allocate the poorest sectors in declining neighbourhoods. In addition, an economic growth on other sectors has implied a decrease in the number of inhabitants per housing unit, and has increased the demand for more space in the layout of the houses and the possibility to choose the location and design of the houses. The document summed the reasons for the currently demand for quality in the residential sector stressing that “*...Today’s citizens are seeking a tailor-made product that can provide comfort and fulfil a range of functions (home, work and study area, a base from which to do shopping or arrange holidays)*”.

2.5.3 Strategies to Achieve Quality in Housing

A review of policy documents referring to the housing sector has been conducted in order to analyse the guidance toward residential projects for expansion. The Fifth Policy proposes guidelines, and uses the spatial structure of the country as a framework of reference for its criteria of spatial quality and intervention strategies. As a result, the proposed strategy for achieving quality at a high scale treatment is based on the promotion of mixed uses. Quality is also defined at the level of the individual citizen through assuring that spaces must not allow a monotonous environment. Instead, citizens should be provided with an environment that meets their wishes and requirements, and at the same time, allow them to function in that environment, and enjoy it. In addition, natural, cultural and historical values are protected, and variety and contrast environments are promoted.

The demand for space is also a main concern of the policy; it is proposed to be satisfied through strategies concerning three aspects to intensify the use of the land. The first aspect concerns

¹³ For practical matters this research will refer to the Fifth National Policy on Spatial Planning as the Fifth Policy.

particularly to the densification of urban areas. The second consists in combining uses; especially in rural areas, combinations between water storage, nature and recreation are suitable. Finally, the last aspect is based on transforming spaces in cities and the countryside so they meet demand for quality.

The Fifth Policy has summed the guidelines of the strategies described before, in the definition of the “Seven Criteria of Spatial Quality“. The criteria respond to the reality of the country, its implementation is meant to assure a positive impact in urban housing projects, and it is summed in the following seven points:

- 1) Spatial Diversity
Difference between city and countryside must be accentuated. Diverse urban environments and landscapes must be able to maintain and strengthen their character
- 2) Economic and Social Functionalities
Instead of crowding each other out, functions such as living, working, travelling and leisure should be well attuned to each other, be mutually beneficial. This improves the climate for establishing new businesses and combats waste.
- 3) Cultural Diversity
People and groups must be able to achieve personal growth in their own ways. There must be space for a diversity of activities. History and technological innovations must remain visible and, when possible, serve as sources of inspiration.
- 4) Social Equality
The spatial conditions must provide everyone the opportunity to live a healthy life. Inequality between social groups and between regions must be combated. Lower income groups should also have access to homes, workplaces, recreation and mobility. A discrepancy between rich rural areas and poor urban areas must not be allowed to develop.
- 5) Sustainability
Ecologically valuable systems must be kept intact or restored. The spatial system of the cities and the countryside must also be sustainable if it is to maintain vitality in economic, social and cultural sense. Spatial planning must do its share to combat environmental problems and provide a safe environment.
- 6) Attractiveness
Maintaining rural and urban attractiveness is a cultural duty. Greater attention to design and planning is required, not only for the city and the landscape, but also with respect to the way in which infrastructure is incorporated into them.
- 7) Human Scales
The way in which space is planned must fit citizens' demands and perceptions. They must not be dwarfed by buildings and infrastructure. Where structures are large scale, planning must pay extra attention to public space.

The guidelines of the Fifth Policy toward the housing sector are engaged to redefine the principles for implementing the Vinex locations projects. These locations are proposed to allocate a minimum of 3,000 houses, and are located next to or within big cities that accounts with good accessibility. The density set for these expansion projects is 35 houses per hectare, nevertheless the Vinex locations are mainly for residential projects, but complementary service areas are also contemplated for these projects. All the locations have the same programme which is tuned to the policy goals, and consist to account with 30% of social housing, 40% of housing

of middle expensive prices (up to \$140.000), and 30% of housing of expensive prices¹⁴. It is a characteristic of all Vinex projects to use landscape as a basis point for their development concept. A total number of half million houses were projected to be built before the year 2005 in the Vinex locations. For this purpose, the policy presents general guidelines as a framework to consider in the design of these dwellings.

The Fifth Policy defines a national framework for the Urban Policy III (2005-2009). The urban policy is structured under three purpose grants; the physical aspect, economy, and the trio of social, integration and safety aspects. The policy provides with basic premises toward the housing sector, that are consist in encouraging changes in the stock in reference to price, band, and the ratio between rented and owner-occupied. It also proposes to increase the number of fully accessible homes (elderly and disabled). In addition, the environmental quality is taken care of through a strategy to promote large scales of green spaces while considering cultural aspects is also provide.

The policy “What People Want Where People Live” has a focus on regulate the housing sector, through providing a broad guidance that is based on the framework of the Fifth Policy. The key notes of the policy are summed in the principle of Quality and Free choice, and are traduced into guidelines to increase the freedom of citizens for choosing housing and residential environments, and at the same time, attending for social values and controlling the market forces. Under these principles, five main tasks and some of their strategies toward the physical outcome of residential projects for the upcoming decade are next presented:

- 1) Providing People a Greater Say Toward Housing and Residential Environments
 - Promoting of the Private construction
 - Launching building regulations directed to achieving quality; simplifying the planning permission procedures and making them more transparent, and logical
- 2) Creating opportunities for people in vulnerable positions
 - Allocating special services and infrastructure for incorporating low income groups, and the disable
- 3) Improving the Quality of Urban Housing
 - Meeting housing qualitative demands
- 4) Improving Residential Quality of Cities
 - Offering high quality city centres and green city environments, and transforming the unattractive urban periphery environment
 - Promoting own neighbourhoods dynamics, in terms of economy, cultural, and social
 - Offering high quality of the public domain and level of amenities in the community
- 5) Complying with the Desire for more Green
 - Retaining the social cohesion and unique identity of the villages
 - Satisfying the demand for village and rural living
 - Developing new residential and urban forms in the transitional areas between the city and the surroundings areas

¹⁴ Source: Ontwikkelings Bedrijf Barendrecht (OBB), 2000, Rotterdam.

A key strategy proposed by the housing document is to achieve higher architectural quality through a combination of individual with community spaces, and in addition, considering optimal accessibility conditions, while health and environment aspects also complement the strategy. The housing document is complemented by the policy document Social Housing in a Nutshell (2003), which uses as a principal concern measures to control social issues, and has a strategy based on improving the quality of life in neighbourhoods under increasing the following aspects:

- **Quality of the Housing Stock**
This aspect is focus on the quality of the dwellings, and it concerns to the technical conditions, the facilities in the dwelling itself, the appearance of the dwellings, noise insulation, and the floor space in the rooms
- **Quality of the Living Environment**
This aspect is referred to the surrounded environments where the dwelling are allocate, it deals with the management of public spaces, the maintenance of green areas, and the pavement surfaces

2.6 Assessment of Residential Projects toward Policy Goals

It has been already stressed that housing policies should reflect the guidelines of spatial plans in order to achieve sustainable solutions. Due to the multi sector character of the housing problem, these solutions should consider their impacts on the diverse sectors they influence; economical, social, and environmental, and in this sense accomplish integral benefits.

2.6.1 Assessment of Residential Projects

The importance of an assessment with respect to residential projects is revealed by the fact that although most urban interventions demand not only high investments on terms of economic and logistic resources, but also social resources, and time; the majority of these projects account with their own physical implementation as the only model available for measurement. Most of the times this measurement is not executed, nevertheless when it takes place is far too late to prevent excessive costs and negative effects that could be predicted.

In the case of a housing policy, the assessment of residential projects built under the policy, allows verifying if the implementation process have achieved the goals of the policy. Because of the multi sector character of the Housing sector and according to the previous given concepts that stress its relationship with spatial planning, and define the urban environment as a result of the combination of dwellings and their immediate surrounding environment, it has to be emphasized that evaluations toward residential projects must consider the urban environment and the dwellings as the basic elements to focus in. In addition, they should analyze the relationship between them in the framework of the policy goals. To conclude, it is also important to consider that the complex impacts that residential projects have on the different sector related to housing, demand an integral perspective toward the assessment of these projects.

2.6.2 Housing Evaluation in the Netherlands

The housing policy evaluation system in the Netherlands is developed by the Ministry of Finance; and is called VBTB¹⁵. It only measures the policy from an economical point of view. However, to complement this system, there are specific ongoing evaluations conducted by VROM that are concentrated on the organizational aspects of the programs implementation, and are not oriented toward observing the content, strategy nor impacts of the programs toward the policy goals.

In addition to these evaluations, VROM have also leaded many surveys and reports in concern to the quality of the housing sector. The Housing Quality Survey (1999) was meant to evaluate the physical outcome of the implementation of the policy at a local level. This survey was focus on the quality on the interior of the dwellings and had a technical framework, but it left focused on the connection between the dwellings and the environment, which according to this research, is considered vital for the purposes of evaluating Residential Projects.

Depending of the requirements of VROM, private agencies has been asked to conduct specific assessment toward the housing policy goals in concern to environmental, social, and other aspects.

In the particular case of quality assessment, RIGO Research en Advies BV (Rigo), a private agency, has conducted reports referred to evaluate Vinex projects that have analysed the quality of dwellings and its surrounding environment. At the same time, during the evaluation, these reports have considered the opinion of the residents towards the achievements of the goals of the policies.

The VBTB system is the official evaluation program for the housing policy, and it has an economical focus. The evaluation of the quality achieved on the housing sector is based on in a combination of the VBTB system with quality focused surveys and private reports conducted for this specific purpose. In this form an integral perspective that considers not only economical factors, but also, physical, social, and environmental aspects toward the progress of the housing policy is achieved.

Chapter 2 has presented the theoretical background related to spatial planning, and its relevance in the housing sector. The experience of the Netherlands toward solving its housing problems has also being explained. Chapter 3 will give an overview of the Implementation of the Fifth National Policy on Spatial Planning in the Netherlands.

¹⁵ VBTB is the abbreviation of van beleidsbegroting toto beleidsverantwoording.

Chapter 3 Implementation of the Fifth National Policy on Spatial Planning in the Netherlands

3.1 Case Study: The Carnisselande Project

As the methodology stated, a residential project constructed under the guidance of the Fifth Policy was founded, in order to conduct on site observations of the qualitative output achieved through the policy implementation. Carnisselande project was selected based on its results referred to qualitative achievement; it was ranked in 21st place among 83 Vinex projects in a report referred to quality housing made by Rigo (1999). The Municipality of Barendrecht¹⁶ qualified the project as a success based on good environmental atmosphere that had being achieved with positive effects in the economical, social, and environmental aspects, while contributing to solve the housing problem. On site observations also verified that the project has achieved high quality toward the policy goals, and the residents¹⁷ revealed a high level of satisfaction toward the project.


The history of Carnisselande started when its area was appointed by the Fourth Policy as a Vinex Location 1998, initiating a long period of planning and coordination of the project. The construction process was organised in different stages and started in 1999 under the framework of the Fifth Policy, nowadays an estimated of 99 % of the project have been built¹⁸.

Carnisselande was considered as a model to observe the physical implementation of the guidelines of the Fifth Policy, and other policy documents in the look to achieve quality. The observation was also meant to complement the already given guidelines and measures of the policies previously analysed with not listed physical measures that were considered relevant accomplishing the goals of the policies.



In 1994, Barendrecht, a traditionally agrarian area located at the south of Rotterdam (40km), was appointed as a Vinex location.

Figure 1

 *Barendrecht Schematic Location*

Source: Infocentrum Carnisselande/Portland,

¹⁶ Interview: Mr. Harry Lievaart, urban designer and city planner at the Municipality of Barendrecht

¹⁷ Interview: 10 residents of Carnisselande chosen at random were interviewed

¹⁸ Interview: ir. Gijs W. vna den Boomen, Landschapsarchitect bnt, supervisor of Carnisselande

3.1.1. The Urban Planning Process¹⁹

Carnisselande is located between the villages of Barendrecht, and Albrandswaard. Barendrecht allocates a major part of the project accounting with 7.6 thousand houses of a total of ten thousand projected. The project accounts with a total area of 600 ha, among 330 are used for residential purpose, and 25 for recreation. The village of Barendrecht was formed at the Iron Age, when farmers set in rustic farmhouses surrounded by fertile clay, and the good conditions for agriculture of the area attracted more people to the village; a small agricultural community of orthodox Christian remained with a passive character for the following years. In 1994, the area was designed as a Vinex location; the farmers that owned the land sold it to real-estate developers at inflated prices. In order to reduce speculation, the local government purchased the land from the real-state developers at reasonable prices, and in exchange for the right to build houses.²⁰ Since that moment, the local government requested their regular urban designer, Wissing bureau, to start the elaboration of an urban plan for the new area. By the year 1,997, Barendrecht still a small village,²¹ but following the goals of the Fifth Policy, the government required Barendrecht to build 1,000 houses a year, using density standards higher than the traditionally used before. Under these premises, the construction of the project started in 1999 and it is estimated to be finished by the year 2006. Nevertheless, Barendrecht has preserved its environmental character; it accounts with one of the largest vegetable and fruit auctions in the Benelux. Over the Southside of Carnisselande, a big lake emphasizes the border of the urban development.



In the last ten years, as a result of the implementation of the Fifth National Policy on Spatial Planning, Barendrecht has doubled its population, although some of the original farms have been conserved, and the village accounts with an historic centre, the originally agrarian area with low density has changed. Most of its new residents are from Rotterdam (70%). The expansion area of Carnisselande has experienced an intense process of residential construction. Carnisselande has achieved positive results in economical, social, environmental, and cultural aspects.²²

Figure 2
Carnisselande area
Sketch of the planning process
Source: <http://www.carnisselande.nl>

¹⁹ Source: Ontwikkelings Bedrijf Barendrecht (OBB), 2000, Rotterdam.

²⁰ The agreement consisted in that the developers got the right to build 25 houses per each hectare they sold to the local government.

²¹ By the year 1997 Barendrecht accounted with 25,000 residents with 9,000 houses, and had a maximum growth of 300 houses built a year.

²² The residents of Carnisselande, the Barendrecht municipality and the supervisor of Carnisselande, coincided in this affirmation through individual interviews.

3.1.2 The Urban Design Proposal of Carnisselande²³

Through consultations between regional, central, and local governments, the requirements of the design of the project were set, at the initial stage, the local government wanted to keep the rural character of the area, and opposed to build so many houses, and to the tramway for connecting to Rotterdam. Nevertheless after intense negotiations the new density and the tram construction were agreed. Wissing bureau developed the design for the new urban area “Carnisselande” under the framework of a plan made by regional authorities that allocated the three main elements that organized the design a residential area, an industrial area, and the tramway that crosses the residential area.

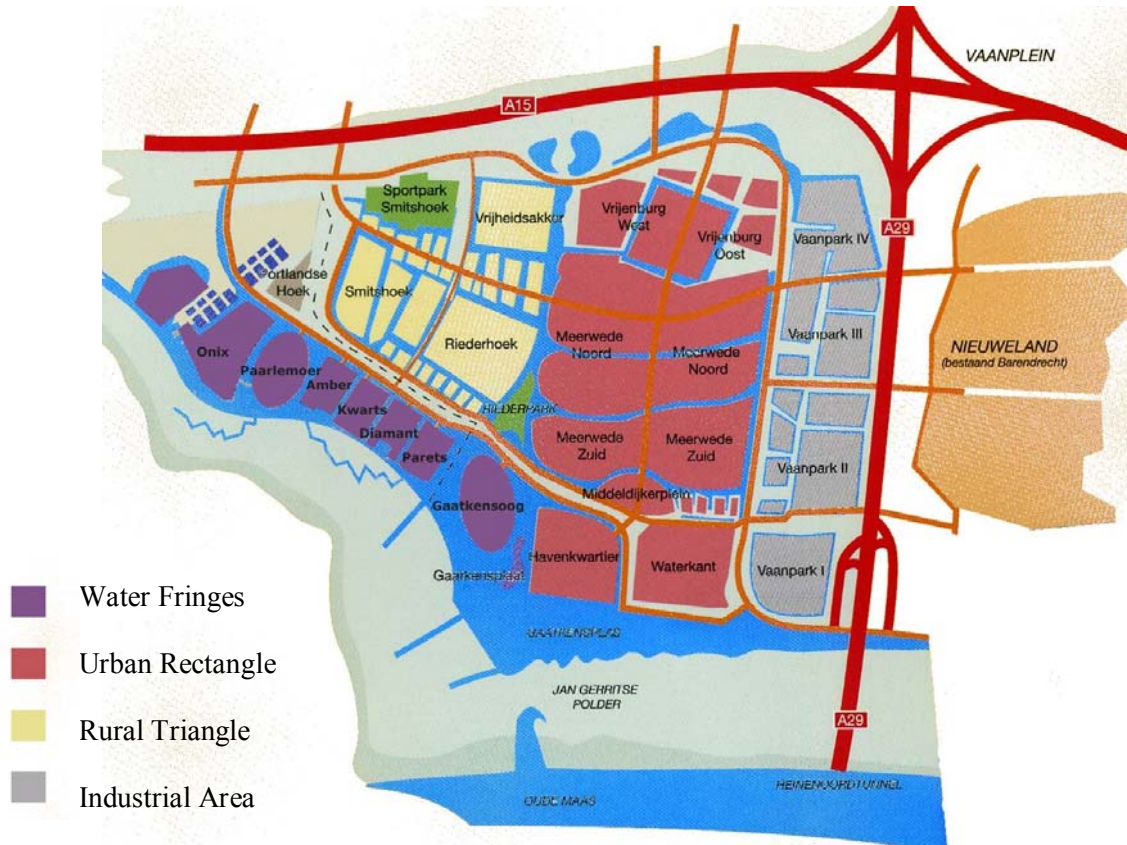


Figure 3
Carnisselande
Sketch of the Master Plan
 Source: Infocentrum Carnisselande/Portland

- 1) The Residential Area
 It is composed by three different living areas; each accounts with its own character determined by the position of the area, the density of the houses, the services that accounts with, and the traffic. The character is also emphasized by the architecture, materials, design of spaces, colours, and urban furniture. The three different living areas are the urban rectangle, the rural triangle, and the water fringes.

²³ Source: Ontwikkelings Bedrijf Barendrecht (OBB), 2000, Rotterdam, and interview with ir. Gijs W. van den Boomen, Landschapsarchitect bnt, supervisor of Carnisselande



Figure 4
The Urban Rectangle
 Source: <http://www.carnisselande.nl>



Figure 5
The Rural Triangle
 Source: <http://www.carnisselande.nl>



Figure 6
The Water Fringes
 Source: <http://www.carnisselande.nl>

- **The Urban Rectangle**
 This is an area with a rectangular form; it is crossed by the tram that connects it to the centre of Rotterdam. This area has been conceptualized as an urban area, but it accounts with the commercial area of the project where a shopping centre, nursing home, library, secondary school, and other facilities have been allocated. The area has been planned with high housing density, the character of its architecture aims to be identified as “urban”, for that matter it has a vertical tendency, the architectural language used evokes bay windows, and materials as loggia’s and red bricks are predominant. At the south side the rectangle limits with the lake through the conceptualization of a designed balcony, the northern part of this area allocates alleys where the use of cars is diminished, the part between the dykes is bordered by the park on the Westside; to experience the park, three east-west green canals were realised.
- **The Rural Triangle**
 The area with the lowest housing density is called Rural Triangle, is located on the western side of the project around the rural centre called Smitshoek. The architecture language utilized has a rural character, uses horizontal elements, big roofs and yellow colours. One of the main characteristics of the area is the allocation of gardens on the front side of the houses, which are bigger compared to the houses from the urban rectangle, and are bordered by hedgerows.
- **The Water Fringes**
 At the south side of the project, next to the open landscape, there are 8 islands floating in the waters of the Koedood Lake, called Water Fringes, the islands form a very special residential area with panoramic views, where buildings that allocate architecture language referring to boats, and using bright colours contrast with the open environment.

2) The Industrial Area

The Industrial Area is located between the motorway and the Carnisser Baan, it accounts with 45 hectares, it have been proposed in order to accomplish a balance between the livings and working activities (mixes uses); giving the area a source of commercial resources and employment. The area is projected for different kinds of companies. Among the area, a difference have been made between the part that borders on the living area, where small islands with representative buildings, and the part that bordered the motorway which allocates more industrial character, The different parts have been connected and treated with public spaces in order to add quality and urban scales to the treatment.

3) The Tramway

The tramway connects the Carnisselande with the centre of Rotterdam, it crosses the Urban Rectangle emphasizing its urban character. The tramway also defines the Avenue Carnisselande, which is an important urban element in the project. The Avenue is crossed by a line of hedgerows, which marks the way of the tram, and connects the Middeldijkerplein with the Voordijk parts; rows of trees provide the avenue a green character in a classical urban space context.

The challenge of designing the avenue consisted in designing individual buildings using a stretch dimension of the facades that will assure accessible prices.

In the search of assuring good quality of design with a certain order that avoided monotony, seven architects were asked to elaborate designs for different types of buildings; each designed an urban family house, an apartment block, a house for practice and courthouses. The buildings have achieved individuality and have been combined in a random principle, with a variety of colours, highs, and materials under a general framework for the whole avenue with specifications referred to proportion, colours, materials, structure, etc. Special measures were considered in concern to enhance their quality characteristics as giving the ground floor a higher height of 3.5mt, a depth of the plots of 40 mt²⁴, given the ground floors the advantage of being suitable for other uses than residential.

3.1.3 The Achievement of Spatial Quality

The area of the Urban Triangle was selected to focus the on site observations, due that its lowest housing density, its concentration of horizontal elements, such as a variety type of houses with gardens on the front, which are bigger and non conventional compared to the ones from the urban rectangle, and are the more tangible answer to the request for quality houses that the surveys reported.²⁵ Based on interviews around this area, and the on site observations, a deeper analysis toward the physical measures used to accomplish of the goals of the Policies listed before was made, and indicators have being found.²⁶ These indicators have been grouped for a matter of order into Neighbourhood and dwelling scales.

- Indicators Found at a Neighbourhood Scale
 - Combined activities
The diversity of the neighbourhood has being achieved in the residential area by allocating a school, library, and health centre, that make it possible to combine living, working, and other relating activities.
 - Mixed types of houses
Among the project, diverse type of houses, in reference to prices, sizes, and styles, has being proposed, in order to achieve mixed neighbourhoods with high quality of life. In the area of Riederhoek, a maximum of 5 blocks with the same type of houses defines this variety.

²⁴ According to VROM (2001), the previous standard high for the ground floor in the Netherlands was 2.7m, and the standard depth of a plot was 25mt.

²⁵ Interview: ir. Gijs W. vna den Boomen, Landschapsarchitect bnt, supervisor of Carnisselande

²⁶ For the purpose of the research, only the indicators that have being identified in the on site visit, and which account with the necessary data to be explained are listed. Further research can be conduct to complement this list.

- Plots for private design
The layout of the project has considered allocating an area with plots meant for being developed by private architects, this measure contribute to satisfy the demand for quality homes, and increases the variety concept of the neighbourhood.
- Cluster of services
In order to complement the physical proposals for mastering a good social climate, the government have played an important role creating a good system of services through a clustering proposal. Primary schools with the day care centre and sometimes the community centre and the accommodation of the community workers in the same building have been proposed.
- Pattern design
The avenue Carnisselande is composed by buildings, seven types of facades set at random composed can be found in the blocks, although the layout of the facades is similar, they are treated with different materials and colours, in this way a good balance between order and diversity have being achieved, with the constructive advantages that the patten use have.
- Street Hierarchy
Among the different areas of the project a clear differentiation between tram, car, bicycles, and pedestrian routes has contribute to give a safety atmosphere. This concept of differentiation has being incorporated to the urban design; for instance, the tramway serves as a defining element for the design of the avenue.
- Reduced distance of routes
The distances of routes for pedestrians and bicycles that have functional character have been reduced, but a special consideration was taken when they pass through areas of cluster services, or with recreational character, in order to allow interrelations and benefit the social atmosphere.
- Mixed sizes of plots
The master plan of the project has considered different sizes of plots that defined a harmonic variety among neighbourhoods, avoiding monotony.
- Coordinated Urban furniture
The master plan of the project has achieved to give identity to the spaces, through providing images and ideas about the surrounding, giving a sense of orientation and identification toward the places incorporating the urban furniture to its designs, through forms, colours, textures, and orientation.
- Indicators Found at a Dwelling Scale
 - Traditional building materials
The project have been constructed utilizing the advantages of modern technology, but the use of traditional materials have allowed to capture a special physical atmosphere that according to the residents of the area, offers a warm environment for living, and give the area a particular identity.
 - Innovative Houses
A special emphasis was made in the design of houses, in order to respond at the demand for quality through offering small houses with private gardens that are not common among the current market.
The project has also allocated houses specially designed taken in consideration health aspects (allergy treated), and other houses account with innovative energy saving systems.

3.1.4 Verification of the achieved Spatial Planning Guidelines in Carnisselande

After analysing the project toward its urban design proposals, some aspects of the physical implementation will be briefly remarked, the aspects have been grouped under the Seven Criteria of Spatial Quality of the Fifth Policy. In this form the congruently between the guidelines given at the national level, with the physical implementation at the local level it is showed.

- 1) Spatial Diversity
The project created diverse urban environments, through the allocation of residential, industrial, commercial, and environmental areas. This diversity was emphasized by developing each of the areas in different sub areas with unique and strong character.
The involvement of different developers have generated competition in the search for clients offering high physical standards among a variety of options, contributing to avoid monotony, and instead achieving an integral plan formed by a harmonic urban environment.
- 2) Economic and Social Functionalities
The allocation of the industrial and commercial areas, and the good accessibility of the town that interconnects it with Rotterdam, have make it possible to develop a variety of economical activities that have had positive local results. The town has a relatively low unemployment rate, and the residents have a high average income.²⁷
- 3) Cultural Diversity
History matters have been preserved through maintaining the environmental character of the area, and emphasizing its relation with the water fringes, through a symbolic architecture.
Technological innovations are shown through the allocations of innovative houses that have special characteristics toward healthy and environmental purposes. (Allergy treated houses, safe energy houses, etc).
- 4) Social Equality
The program has achieved to allocate different households according to: age, income, race, occupation, and cultural background. However, the integration is not well developed yet²⁸, although most of the residents have already been living there for 3 years, they do not participate in the community programs (especially young couples) the senior residents are the most active in these programs. Nevertheless the area accounts with a good social atmosphere.²⁹

²⁷ Source: Ontwikkelings Bedrijf Barendrecht (OBB), 2000, Rotterdam

²⁸ Interview: Mr. Harry Lievaart, urban designer and city planner at the Municipality of Barendrecht

²⁹ The residents of Carnisselande, the Barendrecht municipality and the supervisor of Carnisselande, coincided in this affirmation through individual interviews.

- 5) Sustainability
The Master plan of Carnisselenade project has achieved to take advantage of the waterfront and establish extensive green areas and public open spaces. Innovative solutions in respect to the construction of houses have also assured sustainable proposals through the use of environmentally friendly techniques and materials.
- 6) Attractiveness
Quality of housing and quality of the environment have been achieved with results in good quality of life for the residents through the accessibility to services, and social facilities.
The infrastructure provided in the urban area has been incorporated to the design concept, and in this way not only have achieved its initial purpose, but also has served to enhance the design concepts.
- 7) Human Scales
The public and private spaces among the projects have taken into consideration the demand and perspective of the residents through offering them a variety of public spaces and open areas that interrelation with private areas.

After this brief analysis, it can be concluded that the physical characteristics of Carnisselande allowed accomplishing the expectances that the Seven Criteria of Spatial Quality has set. The positive results that the residential project has achieved in respect to housing and related aspects such as economical, social, and environmental, have allowed identifying the Seven Criteria of Spatial Quality as a relevant element to take into consideration in the development of projects. The on site observations were complemented by interviews and technical data, that allowed identifying and analysing the physical measurements considered relevant to achieve quality conforming a list. This list of indicators will be used as a basis to the development of the Assessment Tool.

Figure 7 (following page) will present the Riederhoek area, where the on site observations were focus, the previous analysis will be complemented with graphic information that will explain how the physical character of some of the indicators previous listed contributed to accomplish the policy the Seven Criteria of Spatial Quality guidance.

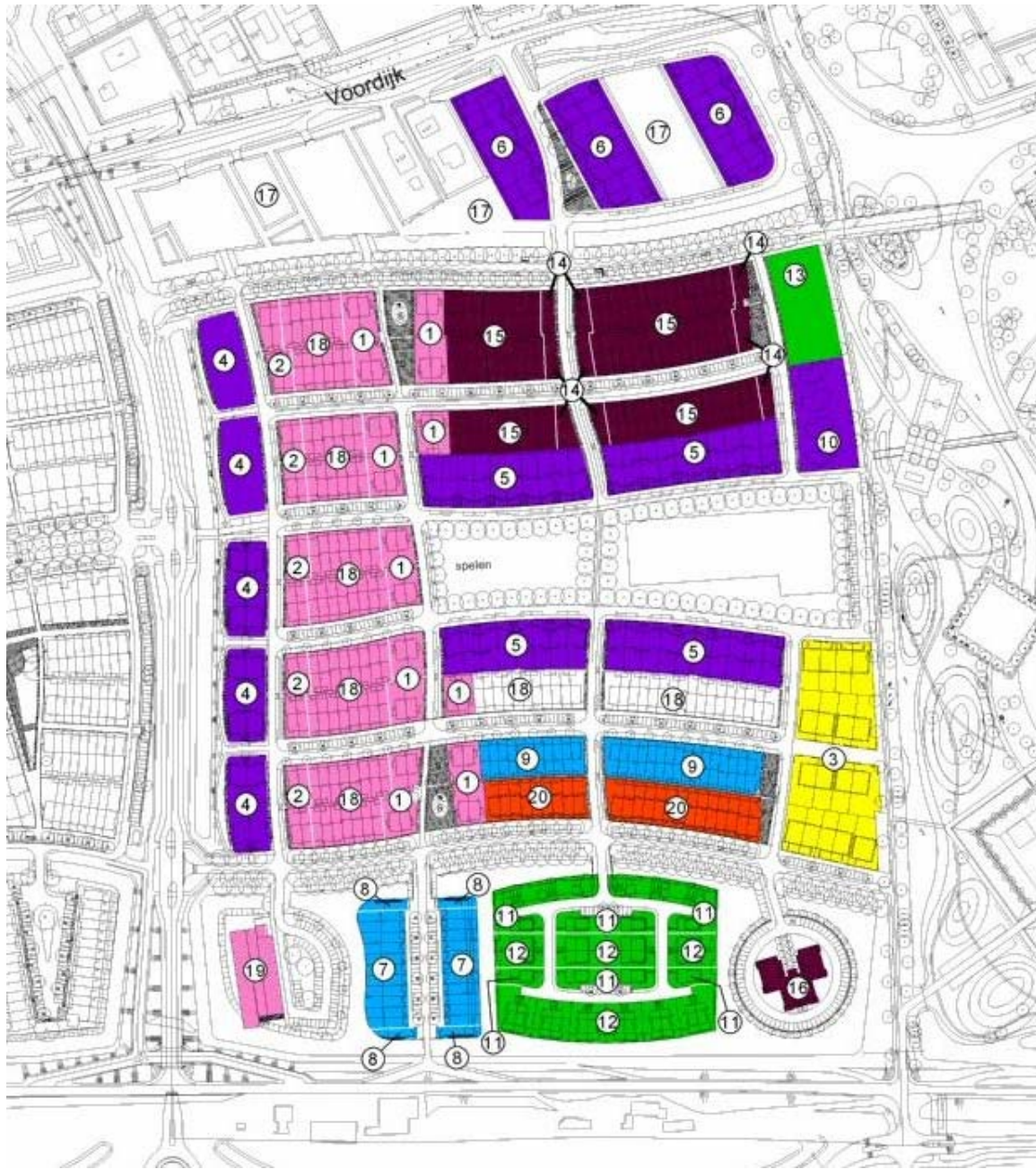


Figure 7
The Riederhoek Area
 Source: *Wissing Bureau*

The Riederhoek area belongs to the Urban Triangle Area. It allocates 516 dwellings, conformed by 20 different types that offer a variety in respect to prices, design, and location.

8 different developers have proposed their own designs for the houses. Figure 2 shows the location of the houses (each number represents a kind of house), and its developer (each colour represents a developer).

The variety of types of houses offers different prices, which can be grouped in 30% of low prices, 20% of medium price, 20% of medium to high price, and 30 % of high price. In Figure 2 (previous page) it is also possible to observe aspects of the general design of the project that are linked to achieve the Seven Criteria of Spatial Quality, and that determined the following indicators³⁰: combined activities, mixed types of houses, pattern design, street hierarchy, reduced distance of routes, and mixed sizes of plots.

The following list presents the 8 developers and the different types of houses they have proposed (numbered according to Figure 2), and their characteristics in terms of privacy (attach, detach or partially attach in relation to other houses), the number of bedrooms, and their use of common areas (individual, or grouped)

- De Corpaen / Com. wonen
 - 1) 32 attaches, 2 bedrooms, (grouped of 2 units)
 - 2) 20 attach, 2 bedrooms, (individual)
- TRS Ontwikkelingsgroep Verkoopkantoor
 - 3) 17 partially attach, 2 bedrooms, (individual)
- Bouwmaatschappij Verwulius b.v.
 - 4) 20 attaches, 2 bedrooms, (grouped by 2)
 - 5) 38 attaches, 2 bedrooms, (grouped by 2)
 - 6) 24 attaches, 2 bedrooms, (grouped by 2)
- K.D.O. bv/Witte Bouw bv
 - 7) 22 detach, 2 bedrooms, (individual)
 - 8) 4 detach, 2 bedrooms, (individual)
 - 9) 27 attach, 2 bedrooms, (individual)
 - 10) 4 detach, 2 bedrooms, (individual)
- Heijmans Vastgoed
 - 11) 14 detach, 2 bedrooms, (individual)
 - 12) 20 partially attach, 2 bedrooms, (individual)
 - 13) 4 detach houses, 2 bedrooms, (individual)
- Adriaan van Erk projecten
 - 14) 9 attach, 2 bedrooms, (individual)
 - 15) 77 detach houses, 2 bedrooms, (individual)
 - 16) 48 apartments

³⁰ See point 3.1.3 for further detail.

- Koudijs Ontwikkeling BV
 - 17) Area in development
 - 18) 70 detach houses, 4-5 bedrooms, 40 are allergy treated(individual)
 - 19) 43 houses detach, 3 bedrooms, (individual)

- ING Vastgoed
 - 20) 23 attach houses, 2 bedrooms, (individual)

Chapter 3 has presented an overview of the Implementation of the Fifth National Policy on Spatial Planning in the Netherlands, the strategy for assuring quality of residential projects has been explained, and the case study Carnisselande has being analysed. Chapter 4 will be dedicated to the Assessment Tool, first the basic concepts will be given, and finally, the development of the proposed Assessment Tool will be explained.

Chapter 4 The Assessment Tool

The tool is based on the Netherlands context due that the policies of the country with respect to housing are currently focused in a qualitative approach, offering the research with an ideal scenario to base the development of the tool. A condition for developing the tool was to identify quality indicators to assess; the Carnisselande project built under the framework of these policies was analysed, not only to observe the application of the policies but also to verify the achievement of the goals of the policies.

4.1 The Concept of the Assessment Tool

The main objective of this study is to develop an Assessment Tool for assuring the application of spatial planning guidelines in the housing sector at a local level. An initial point for achieving this objective was to look at the Swedish International Development Cooperation Agency (Sida)³¹ for guidelines to conduct assessments, for this matter, the Sida Evaluation Manual, “Looking Back, Moving forward” (2004), served as a conceptual framework for developing the tool.³² According to the definition of Sida, “an evaluation is an assessment of the merits and worth of a project, programme or policy in relation to a particular set of evaluation criteria and standards of performance.”³³ In that sense the criteria for the evaluation will be based on the policy documents of the Netherlands that will provide the policy strategy for achieving quality in residential projects.

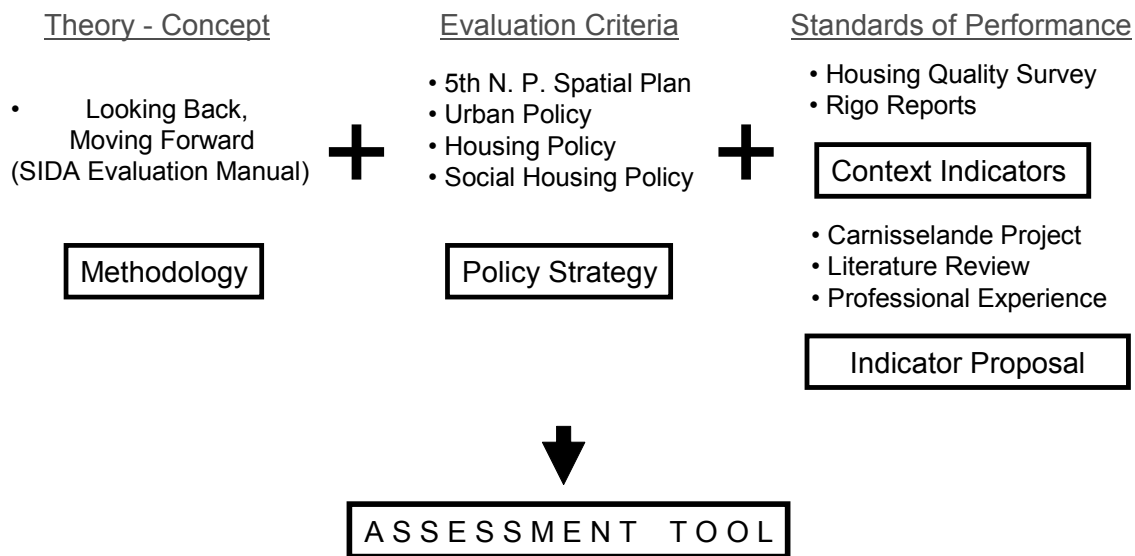


Figure 8

The Development of the Assessment Tool

³¹ Sida commissions a considerable number of evaluations per year (30 to 40). Most of them are project-level assessments initiated by Sida’s operative departments, including the Swedish embassies in partner countries.

³² The Looking back, Moving Forward, Sida Evaluation Manual (2004), was made for evaluation managers, and deals with conceptual matters, and has being made for matters that are common to all or most kinds of development evaluations.

³³ According to the Sida Manual, Looking back, Moving Forward, (2004), No assessment is an evaluation unless it satisfies certain quality standards. To be considered an evaluation, an assessment must be carried out systematically and with due concern for factual accuracy and impartiality.

4.1.1 The Purpose

The objectives of this study are related to determine the relevance of spatial planning in urban housing projects, to identify the implication of spatial planning in the housing sector, and to find learning lessons related to the physical implementation of the housing policy. For these matters, it is necessary to discuss spatial planning measures that have been relevant for benefiting residential projects, their basis implementation and results. In this sense, learning will be the main purpose of the Assessment Tool³⁴, *“the assessment is expected to produce substantive ideas on how to improve a reviewed project and similar new projects”* (Sida 2004). The tool is meant to be applied during the planning process of a residential project, and in this sense, contribute to make the planning process more complex, and at the same time assure a deep analysis of the effects of physical proposals before deciding its application, and in this way, tune them to reality; maximizing their positive effects. The tool consists in an input of practical physical measures that will be a base of guidance in the planning process of residential projects.

Based on the conceptual framework given by the Sida Evaluation Manual, the main use of the Assessment Tool can be defined as an Instrumental Use, meaning that *“the findings and recommendations of the assessment could be directly used as an input to decision-making concerning the assessed intervention; the decision may follow the conclusions or recommendations of the evaluation, but even if it does not, the assessment is seriously taken into account in the deliberations leading to the decision.”* (Sida, 2004)

Due to the learning character of the tool, the type of assessment proposed is a Joint Assessment, this means that different actors involved in the implementation process will participate, and in that sense sector wide approaches will be achieved, while having a wider impact compared to single organisation assessments.

4.1.2 The Users

The tool will provide local governments and its partners in charge to develop architectural and urban planning proposals for residential projects as part of the implementation of housing policies, with a pre implementation tool to guide the designing process focused in a qualitative approach. Subsequently, the main users of the tool have been identified as architects, urban planners, and engineers that participate in developing residential proposals. According to the previous conclusions, it will also be convenient to have the participation of the following specialists: an economist, sociologist, environmental specialist, urban manager, urban planner, and transport specialist. Some projects due to its magnitude and special character may need also a preservationist, or other specialists. It is also strongly advisable to have the participation of a community representative in order to take into account a local perspective.

4.1.3 The Criteria

According to the definition of the Sida Evaluation Manual, the criteria for assessment are composed by variables in terms of which performance is measured or assessed. In that sense the criteria proposed was based on the physical strategies for achieving quality in residential projects under the Netherlands context. For this matter, policies related to national, urban and housing concerns have been examined, and their strategies involving physical proposals have been summed. An initial point in ordering the criteria was to define different scales of physical

³⁴ According to the Sida Manual, *Looking back, Moving Forward*, (2004), “...Assessments that are meant to learning are called formative evaluations, and they do not involve an accountability purpose.

confines, from the greater to the minimum scale in terms of extensions, three scales are proposed: municipality, neighbourhood and dwelling, showed in Figure 4.

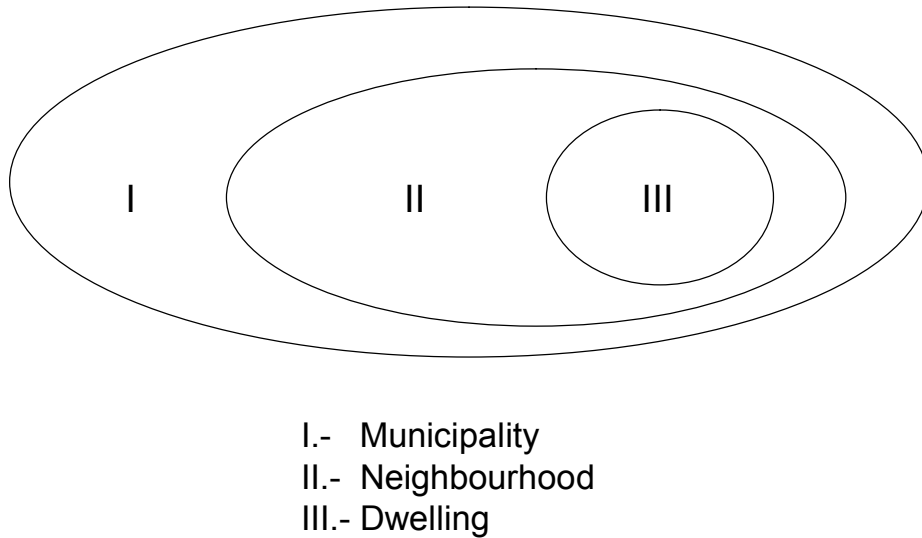


Figure 9
Scales of Physical Confines

- 1) The Municipality is the largest physical scale defined, government politically limits it, and is considered as an area with a local character that usually includes urban and rural environment, and allocates residential and complementary activities such as economic, cultural, and social.
- 2) The Neighbourhood is defined as a medium scale area, with urban character, and a predominance of residential activities; is the environment where the dwellings are allocated, it is conformed by blocks and streets. The boundaries of a neighbourhood is defined through political division.
- 3) The Dwellings are the living units, considered the basic element to define a residential environment.

4.1.4 The Indicators

Indicators are defined by the Sida Evaluation Manual, as a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor. In this sense, the indicators are physical measures that are taken to achieve the criteria proposed.

Due to the applicability of the tool as guidance, as many indicators as possible have been listed. As a result of indicators given by the policies, and additional indicators proposed by this study, with the purpose of providing the users of the tool with as much aspects to consider in the projects as possible; fact that it will contribute in finding integrated proposals.

The search for indicators begun with reviewing the policies documents of the Netherlands, the strategies of the policies were examined, and the proposed indicators toward achieving physical

quality, when given were listed. After listing these indicators³⁵, an observation at Carnisselande project took place in order to confirm their application, and complement the list with new proposed indicators that the study considered relevant for enhancing the tool. For a purpose of order, the indicators will be grouped according to the Scales of Physical Confines. The indicators were selected based on the potentialities as worldwide applicability, statistical measurability, data availability, and ability to show physical outcomes. As the observation only took place at Carnisselande project, the proposed indicators only correspond to the neighbourhood and dwelling scales.

4.1.5 SWOT Analysis

SWOT is an acronym for Strengths, Weaknesses, Opportunities, and Threats.

“A SWOT analysis is a subjective assessment of data which is organized by the SWOT format into a logical order that helps in understanding, presenting, discussing and decision-making.” (A. S. Humphrey, 2004). The four dimensions are a useful extension of a basic two heading list of negative and positive effects. This analysis is extremely useful for understanding and decision-making for all sorts of situations, but it is particularly helpful to conduct process of brainstorming. SWOT analysis can be used for all sorts of decision-making, and the SWOT template enables proactive thinking, rather than relying on habitual or instinctive reactions.

The SWOT analysis is proposed since it allows the users of the tool to come up with considerations toward the effects of the implementation strategy and make decisions based on a reflection toward balancing the possible negatives and positives impacts of each decision. In a complex and multi sector aspects such as housing it is not possible to provide determinant advice toward the implementation of certain physical measurements, but the deep reflection toward adapting certain decisions would allow to tune the projects according to the policy goals, and the context, while revealing positive and negative aspects to consider. In this way, the analysis will lead to a pro active debate referred to find the more convenient physical interpretations to achieve the goals of a policy, instead of in the worse cases, continuing applying standard measures that not only fail to solve the housing problem, but also have important negative effects in collateral sectors

4.1.6 The Steps

The assessment is organized in five steps that have been named as: criteria setting, list of indicators, cross exam, SWOT analysis, and decision-making.

- 1) Criteria Setting

This is the initial step, in order to develop criteria to lead the assessment. As the purpose of the study is determine the implementation of the spatial planning guideline, the policy was analysed and main guidelines referred to influence the physical outcome of residential projects was listed and conform the criteria.

- 2) List of Indicators

The second step consist in listing the indicators based on policies guidelines of the documents related to the housing sector at all levels, from national to local, an on site observations.

³⁵ As the research is meant to evaluate physical measures that go beyond the basic housing requirements and contribute to satisfy the demand for quality, in the context of the Netherlands, it had assumed that basic characteristics standards of quality buildings area already covered, such as primary services, and construction standards, so indicators concerning this matter have not being listed.

- 3) Cross Exam of Indicators
The third step is meant to face the listed indicators toward each of the criteria set in step one, and in this manner match them with one or more criteria where they can achieve relevance, the purpose is to identify indicators that may correspond to more than one criteria, in these case the indicators will be listed as much times as necessary in the list of each correspondent criteria.
- 4) SWOT Analysis
Each of the indicators will be test with a SWOT analysis. The SWOT analysis will determine the strength, weakness, opportunities, and threats of each indicator toward the criteria where is listed.
- 5) Decision Making
The final step of the assessment consists in making decisions toward the design based in the charts of the SWOT analysis.

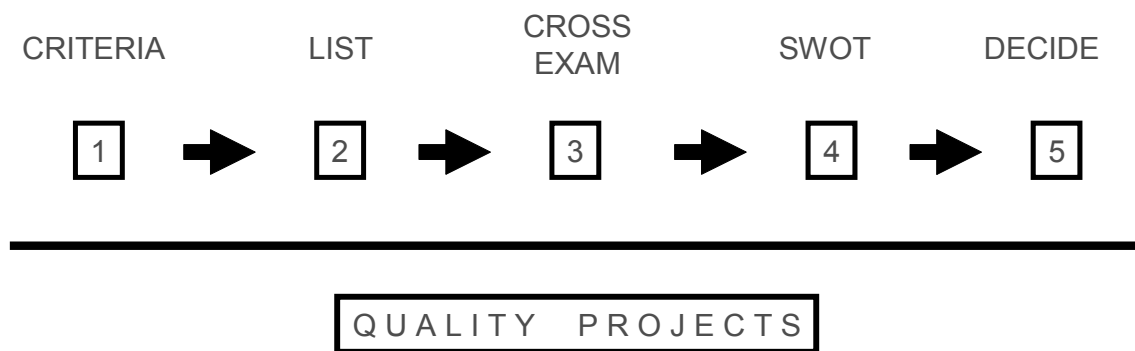


Figure 10
The Steps of the Assessment Tool

4.2 Developing the Assessment Tool to Ensure Quality

The framework for developing the Assessment Tool has being already set; now each step will be developed according to the Netherlands context.

1) Step One - Criteria Setting

After a review of the Fifth National Policy on Spatial Planning it was determined that the Seven Criteria of Spatial Quality, detailed in chapter 2, will be the basis for the assessment of quality of the residential projects, the following are the points of the criteria:

- 1) Spatial Diversity
- 2) Economic and Social Functionalities
- 3) Cultural Diversity
- 4) Social Equality
- 5) Sustainability
- 6) Attractiveness
- 7) Human Scales

2) Step Two – List of Indicators

The indicators are all directed to influence the physical aspects of residential projects and are concern with the neighbourhood, dwelling and the relationship between them. The indicators have been grouped according to their levels of influence, and the policy document where they have been named, starting with the Fifth National Policy on Spatial Planning and going to local level policy documents. The indicators are listed once; even they are named in more than one document.

LEVEL I - MUNICIPALITY

<ul style="list-style-type: none"> • Urban Policy III <p><i>Physical Aspect</i></p> <p>Allocate large scales of green spaces (hectares)</p> <p>Densificate of the use of land</p> <p>Social Aspect, Integration, and Safety</p> <p>Maximize combinations of activities</p> <p>Promote a sense of identity</p>	<ul style="list-style-type: none"> • What People Want Where People Live <p><i>Say about Housing and Residential Environment</i></p> <p>Allocate private construction</p> <p>Desire for More Green</p> <p>Retain the social cohesion and identity of villages</p> <p>Meet the demand for village and rural living</p>
--	---

Table 1

List of Indicators at Municipality Level

LEVEL II - NEIGHBOURHOOD

<ul style="list-style-type: none"> • What People Want Where People Live <p><i>Create Opportunities for the Vulnerable</i></p> <p>Allocate care areas</p> <p>Allocate education areas</p> <p>Allocate work areas</p> <p>Allocate special designed houses</p> <p>Improve Residential Quality Cities</p> <p>Cope local residents activities and enterprise</p> <p>Increase of attractive urban periphery</p> <p>Increase quality of city centre</p> <p>Promote move up the house ladder</p> <p>Accent on the quality of the public domain</p> <p>Increase the level of amenities in the community</p> <p>Allocate mix uses</p> <p>Allocate urban forms in transitional areas</p> <p>Ensure connections to public transport</p> <p>Improve the Quality of Urban House</p> <p>Treat noise and air pollution</p> <p>Treat soil sanitation</p> <p>Treat sustainable build</p> <p>Promote energy conservation</p> <p>Propose sustainable urban plans</p> <p>Increase biodiversity and sustainable w. management</p>	<ul style="list-style-type: none"> • Social Housing in a Nutshell <p><i>Quality of the Live Environment</i></p> <p>Allocate different types tenants in terms of age</p>
	<ul style="list-style-type: none"> • Proposed Indicators <p>Improve the Quality of the Environment</p> <p>Increase the diversity of the neighbourhood</p> <p>Allocate different types of house per block</p> <p>Allocate plots for private design</p> <p>Increase the use of pattern design</p> <p>Use of traditional building materials</p> <p>Apply street hierarchy</p> <p>Reduce the distance of routes for residents</p> <p>Allocate different sizes of plots</p> <p>Coordinate urban furniture</p>

Table 2

List of Indicators at Neighbourhood Level

L E V E L I I I - D W E L L I N G

<p>• Urban Policy III</p> <p><i>Physical Aspect</i></p> <p>Increase home-ownership</p> <p>Increase home for the elderly and disable</p>	<p>• Social Housing in a Nutshell</p> <p><i>Quality of the Housing Stock</i></p> <p>Technical condition</p> <p>The facilities in the dwelling itself</p> <p>The dwelling's appearance</p> <p>Noise insulation</p> <p>Floor space in the rooms</p>
<p>• Rigo Report</p> <p><i>Improve the Quality of Houses</i></p> <p>Increase the size of the rooms</p> <p>Propose flexible layout</p> <p>Allocate interior garden to the houses</p> <p>Consider visual composition from dwelling</p> <p>Increase the number of rooms</p> <p>Increase the privacy in the house</p> <p>Increase the size of the houses</p> <p>Promote a price/quality proportion</p> <p>Use of modern technology and materials</p> <p>Consider the position of the outside space</p> <p>Propose new length breadth proportion</p> <p>The proximity towards neighbours</p>	<p>• Proposed Indicators</p> <p><i>Improve the Quality of Houses</i></p> <p>Build high quality progressive houses</p> <p>Use of traditional building materials</p> <p>Build solar energy houses</p> <p>Build anti allergic houses</p> <p><i>Improve the Quality of the Environment</i></p> <p>Use cluster proposal for services</p> <p>Propose non conventional houses</p>
<p>• What People Want Where People Live</p> <p><i>Improve the Quality of Urban Housing</i></p> <p>Increase of building materials quality</p> <p>Propose of flexible layout</p> <p>Promote individual architecture</p> <p>Increase the size of the rooms</p>	

Table 3
List of Indicators at Dwelling Level

- **Step Three – Cross Exam of Indicators**

The Step Three consist on numbering the Seven Criteria of Spatial Quality:

- 1) Spatial Diversity
- 2) Economic and Social Functionalities
- 3) Cultural Diversity
- 4) Social Equality
- 5) Sustainability
- 6) Attractiveness
- 7) Human Scales

The lists of indicators elaborated in Step One are now joined according to theirs scale of confines, but regardless their policy source.

Table 4, 5, and 6 are meant to face the indicators and the criteria through a cross exam, in order to determine if some indicators can be related to more than one criteria.

L E V E L I - M U N I C I P A L I T Y

	1	2	3	4	5	6	7
<i>Allocate large scales of green spaces (hectares)</i>							
<i>Densificate of the use of land</i>							
<i>Maximize combinations of activities</i>							
<i>Promote a sense of identity</i>							
<i>Allocate private construction</i>							
<i>Retain the social cohesion and identity of villages</i>							
<i>Meet the demand for village and rural living</i>							

Table 4

Cross exam of Indicators at Municipality Level

L E V E L I I - N E I G H B O U R H O O D

	1	2	3	4	5	6	7
Allocate care areas							
Allocate education areas							
Allocate work areas							
Allocate special designed houses							
Cope local residents activities and enterprise dynamics							
Increase of attractive urban periphery							
Increase quality of city centre							
Accent on the quality of the public domain							
Increase the level of amenities in the community							
Allocate mix uses							
Allocate urban forms in transitional areas							
Ensure connections to public transport							
Treat noise and air pollution							
Treat soil sanitation							
Treat sustainable buildings							
Promote energy conservation							
Propose sustainable urban plans							
Increase biodiversity and sustainable w. management							
Allocate different types tenants in terms of age							
Increase the diversity of the neighbourhood							
Allocate different types of house per block							
Allocate plots for private design							
Increase the use of pattern design							
Use of traditional building materials							
Apply street hierarchy							
Reduce the distance of routes for residents							
Allocate different sizes of plots							
Coordinate urban furniture							

Table 5
Cross exam of Indicators at Neighbourhood Level

L E V E L I I I - D W E L L I N G

	1	2	3	4	5	6	7
Increase home-ownership							
Increase home for the elderly and disable							
Increase the size of the rooms							
Propose flexible layout							
Allocate interior garden to the houses							
Consider visual composition from dwelling							
Increase the number of rooms							
Increase the privacy in the house							
Increase the size of the houses							
Promote a price/quality proportion							
Use of modern technology and materials							
Consider the position of the outside space							
Propose new length breadth proportion							
The proximity towards neighbours							
Increase of building materials quality							
Propose of flexible layout							
Promote individual architecture							
Increase the size of the rooms							
Technical condition							
The facilities in the dwelling itself							
The dwelling's appearance							
Noise insulation							
Floor space in the rooms							
Build high quality progressive houses							
Use of traditional building materials							
Build solar energy houses							
Build anti allergic houses							
Use cluster proposal for services							
Propose non conventional houses							

Table 6
Cross exam of Indicators at Dwelling Level

- **Step Four – SWOT Analysis**

The process of planning is simple but it can lead to complex discussions, especially when it is refer to residential projects, since they account with a subjective and complex character. There are many sectors involve in the difficult task of offering quality environments and houses. In addition, there are many contradictory preferences in the quality of the environment with respect to nature, recreation, living, security, transport, etc. It is a responsibility of the team in charge of designing the projects to select the more convenient measures in order to achieve quality in the projects, and are also tuned to the demand of the citizens, and suitable to the reality they belong to. It is not possible to provide a standard solution with respect to some physicals measures or recommend the application of certain criteria, if a deep reflection toward the reality of the place and its populations have not been done.

It is in that sense that the indicators are confronted to a SWOT analysis, in general there will not be a substantial no or a yes while evaluating the indicators, and perhaps that is the main contribution of this tool, to encourage further consideration and reflection in the actual physical strategy for achieving quality in residential projects. Avoiding the risk of adopting a passive attitude and just rely in habitual measures, and be aware of the negative possible effects that the measures can bring.

For this matter, the step four consists in testing each of the indicators by the SWOT analysis toward the perspective of the Seven Criteria of Spatial Quality.

Table 7, 8, and 9 are meant for the SWOT analysis

L E V E L I - M U N I C I P A L I T Y

	Strengths	Weaknesses	Opportunities	Threats
<i>Allocate large scales of green spaces (hectares)</i>				
<i>Densificate of the use of land</i>				
<i>Maximize combinations of activities</i>				
<i>Promote a sense of identity</i>				
<i>Allocate private construction</i>				
<i>Retain the social cohesion and identity of villages</i>				
<i>Meet the demand for village and rural living</i>				

Table 7

Swot Analysis of Indicators at Municipality Level

LEVEL II - NEIGHBOURHOOD

	Strengths	Weaknesses	Opportunities	Threats
Allocate care areas				
Allocate education areas				
Allocate work areas				
Allocate special designed houses				
Cope local residents activities and enterprise dynamics				
Increase of attractive urban periphery				
Increase quality of city centre				
Accent on the quality of the public domain				
Increase the level of amenities in the community				
Allocate mix uses				
Allocate urban forms in transitional areas				
Ensure connections to public transport				
Treat noise and air pollution				
Treat soil sanitation				
Treat sustainable build				
Promote energy conservation				
Propose sustainable urban plans				
Increase biodiversity and sustainable w. management				
Allocate different types tenants in terms of age				
Increase the diversity of the neighbourhood				
Allocate different types of house per block				
Allocate plots for private design				
Increase the use of pattern design				
Use of traditional building materials				
Apply street hierarchy				
Reduce the distance of routes for residents				
Allocate different sizes of plots				
Coordinate urban furniture				

Table 8
Swot Analysis of Indicators at Neighbourhood Level

L E V E L I I I - D W E L L I N G

	Strengths	Weaknesses	Opportunities	Threats
Increase home-ownership				
Increase home for the elderly and disable				
Increase the size of the rooms				
Propose flexible layout				
Allocate interior garden to the houses				
Consider visual composition from dwelling				
Increase the number of rooms				
Increase the privacy in the house				
Increase the size of the houses				
Promote a price/quality proportion				
Use of modern technology and materials				
Consider the position of the outside space				
Propose new length breadth proportion				
The proximity towards neighbours				
Increase of building materials quality				
Propose of flexible layout				
Promote individual architecture				
Increase the size of the rooms				
Technical condition				
The facilities in the dwelling itself				
The dwelling's appearance				
Noise insulation				
Floor space in the rooms				
Build high quality progresive houses				
Use of traditional building materials				
Build solar energy houses				
Build anti allergic houses				
Use cluster proposal for services				
Propose non conventional houses				

Table 9
Swot Analysis of Indicators at Dwelling Level

• **Step Five – Decision**

Based on the charts of the SWOT analysis, a discussion toward selecting the more convenient physical measures in order to maximize the positive effects of the project in the framework of the policy, should lead to make the more convenient decisions toward the design and planning stages.

Chapter 4 has presented the Assessment Tool; basic concepts were given, and then its development has being explained.

The final chapter will present the conclusions regarding the main findings of the research and its contribution through the tool. Finally recommendations for the application of the tool are given.

Chapter 5 Conclusions and Recommendations

5.1 General Conclusions toward Spatial Planning and its relevance on Residential Projects

The research has stressed the importance of spatial planning considerations in the development of housing policies while explaining that they assure positive impacts by providing them with suitable, tuned to context, and sustainable solutions for the housing problem. Housing policies have a multi sector character and a determinant impact in shaping a country toward its development; they deserve a deep reflection in selecting the best measures to execute its implementation, and in this way contribute to enhance their positive effects, avoiding collateral problems in related sectors. In this sense, it is crucial for any residential project under the framework of a housing policy to be congruent with the guidance of spatial plans.

The importance of verifying the accomplishment of the goals of a housing policy with respect to its physical implementation is related to not only the negative effects that residential projects could cause in other related sectors while not succeeding to solve the housing problem, but also in the waste of resources and time that these failures represent. The multi sector character of housing policies, demands an integral perspective toward the effects that its guidelines can cause, regarding not only economical effects, but also other complementary ones, as the physical, environmental, and social; an integral perspective is the only mean for verifying the achievements of the goal of a policy.

For this matter, different kinds of assessment are needed toward the diverse aspects that Housing Policies influence, this research is focused on the physical assessment of residential projects, considered as an important but not unique aspect to assess while verifying the implementation process of a housing policy. Residential projects are the most tangible product of housing policies. These projects are meant to be the scenario where people develop their life; their physical aspects have a direct influence in the functionality of the living atmospheres they create. Therefore, it is important to assure they are directed toward offering quality of life to their residents, while avoiding different social, economical, and environmental problems generated as collateral effects of the housing problem.

The research has succeeded in developing an Assessment Tool to assure the application of Spatial Planning guidelines directed to tackle a qualitative deficit in the housing sector at a local level. For this matter, the Carnisselande project was used as a real model that allowed verifying through on site visits, interviews, and technical documents, the physical implementation of the guidelines of policies in the Netherlands. The positive results that the Carnisselande project has achieved in terms of the housing and related aspects, allowed to identified the Seven Criteria of Quality as a relevant element to take into consideration in the development of residential projects to assure positives effects. The tool assures the application of the guidelines while it creates pro-active discussions during the planning stage of developing projects toward deciding the more convenient physical measures to be adopted, with a deep consideration of the negative and positive effects that these measures will cause in the framework of the guidelines of the policies.

5.2 The Assessment Tool for Achieving Quality

Residential projects are the main results of housing policies, they demand high investments of resources and time, and its development have a determinant effect on social and environmental aspects. The use of the Assessment Tool proposed by this research, and will assure that these

investments will have the expected results, and will also reduce the complete reliance on the need to do post implementation evaluations. Since mistakes can be reduced as earliest as possible, the project assessed with the tool has already assured its positive effects toward the guidelines of the policies.

The proposed Assessment Tool is meant to be used as a pre implementation guide to develop qualitative focused proposals for residential projects, while creating a deep reflection toward the possible effects that certain physical measures can bring, and in this way adopt the more convenient ones according to the guidelines of the policies. Since the research did not find any specific tool related to the purpose of assessing the physical measures of residential projects toward the goal of housing policies, (while not only considering technical matters, but also related them to aspects such as social, cultural, and environmental, as the proposed tool does while using the guidelines of the policies as a framework), a unique version for assessing projects have been proposed; based on the concepts provided by the Sida Evaluation Manual, and with a methodology of five steps meant to have a constant link with the context reality where it has being developed.

5.2.1 Significance on Urban Projects

The ideal use of the tool will take place during the planning stage of residential projects; the tool should assure a deep reflection before deciding the application of certain physical measures that will define the project physical characteristics toward the goals of a policy, while balancing the negative and positive impacts among the different sectors related to housing. Consequently, the tool will act as a pre implementation instrument in order to tune residential projects to policy goals, while enhancing their positive impacts, and at the same time, considering the possible negative ones.

Nevertheless, the tool can also be used in a post implementation stage, when a project is already built, in order to determine the accomplishment of the guidelines that lead the project conception, and identify physical measures that do or do not achieve the effects expected; and modify them if possible, or avoid their use in new similar projects. In this sense, the tool will contribute with learning lessons toward the application of certain measures and the effects achieved in a certain context. The tool will also contribute to the better acknowledgement of the scope and limitation of the effects of residential projects in relation to achieving quality, and the results of this assessment could be used for discuss the effectiveness of the implementation process toward the quality goals of a housing policy.

5.2.2 Collection of the Proposed Indicators

In order to develop the Assessment Tool, it was necessary to observe the application of spatial planning guidance in housing projects, for this matter, the case study Carnisselande served as a base, an ideal scenario where a qualitative focus policy has been developed, with satisfactory results according to different reports. The intention to focus in this scenario was to verify the application of the guidelines of the policies while analysing their effects, as it was mentioned before, the project accounts with positive results in the housing, and related aspects that confirm the accuracy of the guidelines and its implementation, in this way learning lessons have being found in concern to the application of the indicators listed, and its effects in an specific context. Another intention of focusing in this scenario was to gather as much indicators referred to physical considerations, as possible, in order to use them as a base to develop the tool. Precisely, the on site observations allowed to find quality indicators that were not specifically listed in the

previously reviewed policy documents. That in practice could seem very obvious, and probably have not been considered in the planning process, but the research considered important to list them, because of their positive contribution to the achievement of the guidelines of the policies, and in this way assure its consideration while using the tool in other residential contexts.

5.2.3 Applicability on Other Context

The tool has been focus in the Netherlands context because of the quality approach of the housing policies that have been implemented on the country during the last decade. The country has offered the research an ideal scenario where qualitative indicators have been identified and analysed. Nevertheless, the tool can be applied to other contexts where quality projects are meant to be achieved in terms of urban housing. For this matter, it will be necessary to adjust the steps of the methodology. In order to tune the tool to the specific context, it is crucial to redefine step one and step two.

Under step one, the criteria should be determined by the policy documents related to the specific context, although most of the housing policies coincide in the general concepts of its goals, while looking to achieve quality of life in their projects, through measures to taking care not only of the dwelling but also of the surrounding environment, assuring sustainable solutions in terms not only to the housing aspect but also to related aspects. Still, there will be concepts that have to be considered in a context reality, a starting point to consider for this matter is the definition of quality; the definition will have a variety of interpretations and indicators related according to the context where the tool is applied. Consequently it will be necessary to tune the criteria to the specific context while translating the guidelines into physical measures that are suitable for the context in discussion.

On behalf of the step two, the list of indicators that the proposed Assessment Tool offers could serve as a basis for listing indicators that are relevant for the context. However, a review must be done in order to assure that they are set toward the specific guidelines for achieving quality of the correspondent policy, for this matter the proposed list will be completed and/or modified, depending on the applicability of the listed indicators, and according to specific realities some indicators will not be useful or applicable.

It is important to remember that on site observations are very useful to identify and analyse indicators, as was in the case of this research, for this matter it is advisable to select several projects to analyse, and in this way increase the validity of the indicators, and be able to analyse indicators at municipality scale too. The following steps of the of the Assessment Tool are based on the data already gathered on the previous steps, while developing them it is important to keep in mind a perspective tuned to the specific context where the project is developed. For the matter of ordering the indicators while defining different scales of physical confines, the dwelling and neighbourhood scales will suit to other context, but it will be necessary to define the so-called municipality level according to the context. In doing this, it is important to consider that this scale should contain the neighbourhood and dwelling scales, and should allocate at least one urban residential area on it.

5.2.4 Limitations

As it was stressed before, housing programs have a multi- sector character; even their physical aspect is determinant to accomplish the goals of a policy. It has to be complemented with economical, environmental and social assessments, in order to have an integral perspective when assessing the achievements of the goals of a policy. Nevertheless, while the tool is based on

policy guidelines, it assures the consideration of just the most obvious impacts in respect to these aspects.

The tool is not meant to give a standard and determinant solution in the application of certain physical measures toward accomplish in the criteria of a policy, it is meant to generate a proper consideration of the effects that these measures can bring through their implementation. The decision to apply them or not is responsibility of the policy implementers, but the tool will assure them that the main important aspects toward their application in accomplishing the goals of a policy have been considered, and based on those considerations the more convenient decisions should be made.

The limited time that the research accounted for doing the analysis, reduced the availability of indicators; as only the Carnisselande case study was considered, it was not possible to propose indicators at a municipality level. Only the indicators that have being identified in the on site visit, and which account with the necessary data to be explained were listed. Since the research was meant to assess physical measures that go beyond the basic housing requirements and contribute to satisfy the demand for quality, in the context of the Netherlands, it had assumed that basic standards of quality are already covered; such as primary services, and construction standards. Consequently, indicators concerning these matters have not being considered, but in other context where quality is defined toward these characteristics, it will be determinant for the validity of the assessment to consider them.

5.2.5 SWOT Analysis

The more tangible results of a housing policy are perhaps the residential projects it promotes, since these projects have great influence in the life of residents, which determine their quality of life, and in that sense their behaviour through the provision or non-provision of certain physical measures. The planning of stage these projects is determinant in the implementation of a housing policy, because it defines the characteristics of the final product of the policy; having a direct link with citizens, which are meant to be the main beneficiaries of the policy. Therefore, it is important to deliver well-tuned products that reflect the demand of the citizens, considering its implications not only as a product to solve the housing problem, but also as a dwelling that accounts with quality of life. During the planning process of these projects, it is important to conduct a deep analysis of the physical measures that are suitable to apply according to the resources available, and balance their effects, in order to select the ones that are more convenient to achieve the policy goals. There are many limitations such as resources, time, etc, that do not allow the application of all the guidelines of a policy, as a result, it is not possible the complete application of all the indicators. In fact, many of them are contradictories when we compare them to each other. A decision toward the adoption of one indicator will in generally mean a decrease on the effects that others can have, this is why it is so important to have a broad perspective of all the positive and negative effects that can be achieved, and balance them in order to propose the more convenient solutions.

The SWOT analysis is suitable to promote the analysis needed for the decision making toward adopting specific measures, due to its pro active characteristics, which is meant to provide the policy implementers with new input toward the effects of the implementation strategy of certain measures, and make decisions based on reflections toward balancing the possible negatives and positives impacts to each of these measures. A complex and multi sector aspect as housing, does not allow providing determinant advice toward the implementation of certain physical

measurements. However, the deep reflection toward certain decisions would allow tuning the projects according to the policy goals and the context, while revealing positive and negative aspects to consider.

The analysis will help to eliminate un-based conceptions toward certain physical measures, it can open the discussion for using new or already proven measures that for different reasons have had negative results before, but under different circumstances could be convenient to adopt. For instance, it can be possible to consider more economically expensive proposals, instead of the already considered inexpensive ones based on their greater positive effects especially at a long-term period compared to the inexpensive ones. Another advantage that the analysis will bring is to allow the observation of the effects that the indicators planned to apply in a specific project will have toward the policy goals, and in this way, it can be revealed that some of the indicators need a deeper analysis because of its complex influences toward the goals of the policy.

5.2.6 General Recommendations

The main users of the tool have being identified as architects, urban planners, and engineers, that develop residential proposals, but the tool can be a reference material for any person concern with the implementation of housing policies, as long as they are focus in a qualitative approach. Identifying the users of the assessment will have determinant results for its validity, it is advisable to involve members of the institution in charge of the implementation of the projects, and also stake holders. In that sense, the analysis will be done from different perspectives, assuring integral proposals.

Although external assessments have more credibility, as the purpose of the tool is a learning process, an internal assessment was proposed. This means that the users of the tool are responsible or involved with the organisations responsible for project to be evaluated. In this sense, they will have a good understanding of the conceptualization of the project to be assessed, and they will be in the position to apply, diffuse, and follow-up the results of the assessment, with the purpose of improving the assessed project of similar futures ones. The users will also be able to propose measurements to enhance the process of planning under the framework of their institution, based on the discussions generated by the SWOT analysis.

For the accomplishment of these matters, the only approach to achieve the purpose of the tool is to have an impartial and objective participation of the users. They should be willing to consider the results of the analysis, in order to take the more convenient decisions to accomplish the goals of the policy, even when this could mean to recognize mistakes already made, redefine the concepts of the projects they have being already working on, or to adopt measures that cost more than the ones previously considered, or that go against political interest.

Bibliography/References

Literature

Molund, S. and Schill, G. (2004) *Looking Back, Moving Forward Sida Evaluation Manual* Sida, Stockholm

Matthew, C., Punter J. and Chapman, D. (2002) *From Design policy to Design Quality The treatment of design in community strategies, local development frameworks and action plans.* Telford Publishing, London.

Environmental Resources Management (June 2001) *Guidance on EIA EIS Review* ELA Edinburgh

Commission for Architecture and Build Environment (CABE) and Department of the Environment, Transport and the Regions (DETR) (2000) *The Value of Urban Design*, CABE London.

Lennart, P. and Engstrom, S. (1999) *Managing and Conducting Evaluations Design study for a Sida evaluation manual* Sida, Stockholm

World Health Organization (1999) *Towards a new planning process A guide to reorienting urban planning towards Local Agenda 21* Healthy cities European Sustainable Development and Health Series: 3, Geneva

Nieto, M. (1999) *Metodología de evaluación de proyectos de viviendas sociales.* Serie Manuales, ILPES, Santiago de Chile

Documents and Reports

van Run, P. (2004) *Interim evaluations in Germany – an outsiders view: German evaluations in the perspective of a Dutch evaluator* voor Beleid International (Institute for Policy Research), Leiden

W. Korthals, (2002) *Local Government and the Decentralisation of Urban Regeneration Policies in The Netherlands* Urban Studies, Vol. 39, No. 8, 1439–1452

Priemus, H. (2000) *Social Housing as a Transitional Tenure? Reflections on the Netherlands' New Housing Memorandum 2000* Housing Studies, Vol. 16, No. 2, 243–256

Van Iersel, J. and Marsman, G. (1999) *Vinex-kwaliteit door de ogen van bewoners* RIGO Research en Advies BV, Amsterdam

Smit, S. and Keers, G. (1999) *Woningdifferentiatie RET velden marktonderzoek* RIGO Research en Advies BV, Amsterdam

On line Documents

Sandra Rihs and Katell (2001) *The Evolution of Slum Clearance Policies in London and Paris*, United Nations Centre for Human Settlements (Habitat) volume: 7 Number: 3
<http://www.unhabitat.org/hd/hdv7n3/7.htm>

Official Documents

Ministry of Finance of the Netherlands (VROM) (2005) *Dutch State Treasury Agency Dutch Government Securities 2005* Drukkerij Ando bv, The Hague

Urban Policy and Inter-administrative Relations Directorate of the Ministry of the Interior and Kingdom Relations (2004) *Working together on the strength of the city Urban Policy III 2005 – 200*, Ministry of the Interior and Kingdom Relations, The Hague

European Foundation for the Improvement of Living and Working Conditions (2004) *Quality of life in Europe First European Quality of Life Survey 2003*, Publications Office, Dublin

Interdepartementaal Project Nota Ruimte (2003) *NOTA RUIMTE NATIONAL SPATIAL STRATEGY Summary creating space for development*, The Hague

Department of Housing of the Direction General of Planning, Housing and Heritage (DGATLP) (2002) *HOUSING STATISTICS IN THE EUROPEAN UNION 2002*, DGATLP Belgium.

Ministry of Housing, Spatial Planning and the Environment (VROM) (2001) *Making space, sharing space, summary Fifth National Policy Document n Spatial Planning 2000/2020*, VROM The Hague

Ministry of Housing, Spatial Planning and the Environment (VROM) (2001) *What people want, where people live, New housing policy in the Netherlands*. Journal of Housing and The Built Environment. Kluwer Academic Publisher, VROM The Hague

Ministry of Housing, Spatial Planning and the Environment, (VROM) (2001) *Dutch Social Housing in A Nutshell*, VROM Hilversum

Baker, J. (2000) *Evaluating the Poverty Impact of Projects: A Handbook for Practitioners* The World Bank, Washington DC

Papers

van der Meer, F. and Edelenbos, J. (2002) *The Netherlands Evaluation in multi-actor policy processes: accountability, learning and cooperation* Paper prepared for the 2002 EES Conference Seville, October 10-12

Gilbert, A. (2001) *Housing in Latin America*, Inter-American Development Bank, INDES-European Union Joint Program Working Paper

Heins, G.(2001) *Social effects of urban renewal A first evaluation of urban renewal in northern Netherlands* Paper presented on the ENHR-conference in Warsaw/Pultusk, Poland (25 - 29 June 2001) on Housing and Urban Development in New Europe

Web Links

VROM international The Netherlands Ministry of Housing, Spatial Planning and the Environment

<http://international.vrom.nl/pagina.html?id=5450&ref=>

The Dutch Urban Expert Centre

www.dutchuec.nl

Rigo Rresearch en Advies BV

<http://www.rigo.nl>

Carnisselande

<http://www.carnisselande.nl>

World Bank website on impact evaluation

<http://www.worldbank.org/poverty/impact/>

Swedish International Development Agency

<http://www.sida.se>

Annexes

List of figures and Tables

Figure 1

Schematic Location of Barendrecht

Source: Infocentrum Carnisselande/Portland,)17

Figure 2

The Carnisselande Area

Source: Infocentrum Carnisselande/Portland.....18

Figure 3

Carnisselande, Sketch of the Master Plan

Source: Infocentrum Carnisselande/Portland.....19

Figure 4

The Urban Rectangle

Source: <http://www.carnisselande.nl>.....20

Figure 5

The Rural Triangle

Source: <http://www.carnisselande.nl>.....20

Figure 6

The Water Fringes

Source: <http://www.carnisselande.nl>.....20

Figure 7

Riederhoek Area.....

.....25

Figure 8

The Development of the Assessment Tool.....

.....28

Figure 9

Scales of Physical Confines.....

.....30

Figure 10

The Steps of the Assessment Tool.....

.....32

Table 1

List of Indicators at Municipality Level.....

.....33

Table 2

List of Indicators at Neighbourhood Level.....

.....33

Table 3

List of Indicators at Dwelling Level.....

.....34

Table 4

Cross exam of Indicators at Dwelling Level.....

.....35

Table 5

Cross exam of Indicators at Neighbourhood Level.....

.....36

Table 6

Cross exam of Indicators at Dwelling Level.....

.....37

Table 7

Swot Analysis of Indicators at Municipality Level.....

.....38

Table 8

Swot Analysis of Indicators at Neighbourhood Level.....

.....39

Table 9

Swot Analysis of Indicators at Dwelling Level.....

.....40

List of Abbreviations

PHSP	Peruvian Housing Strategic Plan
VRM	Ministry of Housing, Spatial Planning and the Environment
Rigo	RIGO Research en Advies BV
Sida	Swedish International Development Agency

Onsite Observations

This Onsite Observations helped to verify the physical implication of the Seven Criteria of Spatial Quality among Carnisselande.

Area:

Date and Time:

Spatial Diversity

Are there allocated enough urban services?

Residential Commerce Recreation Culture Services Religion

Economic and Social Functionalities

Is the layout of the house in accordance guidelines of the policies? Description

Is there enough and appropriate infrastructure? Description

Which activities are developed in the area?

Does the infrastructure of the area allow these activities to develop correctly?

Is there appropriate structure for the services needed? (Water, heater, electricity, internet, telephone, elevator, laundry, electrical security, intercommunications, automatic door opening, etc)

Are there community services, and spaces?

Cultural Diversity

What are the main physical characteristics of the area?

Does the architectural language reflect a particular socio economical or ethnic group?

Is there any traditional building or open space among the area with a specific cultural context?

Are there any monuments or names of the streets, buildings, referred to a specific cultural context?

Are there equal spaces for women and for men, for children, adults and elderly?

Social Equality

Can it be identified human groups that live, work, of join in a specifically place, in terms of...

Race Age Income Activity

Are there tensions between these groups, why?

Are there children playing around the neighbour?

Are common spaces being used?

How much time do the residents use the area?
Only sleep Weekends All time

Can the neighbour be considered mixed?

Why?

Which is the most concurred place among the area?

Is there any particular place that is empty?

Sustainability

Are there common places for meeting? (Church, salons, playgrounds, etc)

Is there any publicity of community activities?

Is there an environmental program for the project (recycling for ex)?

Are the houses in good conditions? (Description)

Are the common spaces and buildings in good conditions? (Description)

Attractiveness

Is the architectural language according to the surround?

Does the architectural language reflex a particular group?

Can design concepts be identify in terms of the houses? Explain

Can design concepts be identify in terms of the the common spaces, and buildings? Explain

Human Scales

Are the proportions of common spaces according to the number of users?

How are pedestrian and the bicycle paths defined?

Are the services allocated in a convenient distance from the houses?

Working Sheet

This Working Sheet was made for collecting general data of the project.

The data was acquired by reviewing official documents and was check with Wissing berau, the Municipality of Barendrecht, and the Information Center of Carnisselande

BASIC DATA OF THE PROJECT

General Data

Name of the project

Year of built

Built Area

Green Area (free area)

Density

Activities and Services in the project

Are these activities allocated in the project?

Residential commercial community working recreational cultural

Name other additional activities

Number of houses and types

Number of stores

Number of churches

Number of sport fields

Number of open spaces

Number of parking car spaces

Number of parking bicycle spaces

QUESTIONARY 1

Target: Project Developers - Wissing berau, and the Municipality of Barendrecht

This questionnaire was made for collecting general data referred to the whole process of developing the project.

The target to interview was formed by project developers in preference to urban planners, and architects.

The Design Stage

What was the concept of the project?

Was the emphasis on quality / quantity, or both?

Was the project target for a specific group of people?

The Actors

Who participated in the design of the layout and how were they represented? (List specific companies or individuals)

Local authorities

Urban Planner

Architect

Engineer

Community Representatives

Others

How were the coordinations made?

Who had the final decision making?

Implementation of the Policy

Why was that particular location chosen?

Was is the concept of the urban scheme?

Which particular measures regarding physical aspect the policy has influenced?

How was the number and types of apartments determined?

How was the architectural project organized?

Do the kitchens, bathrooms, and special areas inside the unit account with detailed plans?

Do the halls, stairs, and other common areas, outside the unit account with detailed plans?

The Construction Stage

Was the project built according to the blueprints?

Was the original layout applied?

Will it be any future changes?

Monitoring

Is there any kind of assessment system for the project?

How is the maintenance organized?

What strategies for Sustainability have been proposed?

What are the general positive results of the project?

What are the general negative results of the project?

Are there any plans to develop a similar project?

What would have to be changes referred to the design of the projects would you make?

QUESTIONARY 2

Target: The Residents of Carnisselande

This questionnaire helped to collect data related to the achievements of the Seven Criteria of Spatial Quality, based on the information of the residents.

Spatial Diversity

Are there allocated all the urban services that you need?

Do you do sports around the area?

Do you enjoy walking around the area?

Economic and Social Functionalities

Interior

What are the activities that you perform in the house?

Is there enough and appropriate infrastructure?

Do you account with the necessary space to develop your activities? If not, what is missing?

Do you plan to make changes on your house?

Exterior

Do you do your shopping around the area?

Do you account with appropriate structure for the services you need? (Water, heater, electricity, internet, telephone, elevator, electrical security, intercommunications, automatic door opening, etc)

Are there child care facilities?

Cultural Diversity

Do you like the architectural language?

Is the majority of resident part of the church?

Do you frequent any cultural centre around?

Do you feel identified with any traditional building or open space among the project?

Do you consider that there are equal spaces for women and for men?

Do you consider that there are equal spaces for children, adults and elderly?

Social Equality

Can you identify human groups that live here?

Race Age Income Activity

Are there tensions between these groups, why?

Do you allow your children to play around the neighbour?
Do you use the common spaces?

How much time do you spend in your neighbour?
Only sleep Weekends All time

Whenever you have guests do you use the common places?

Do you consider this is a mixed neighbour?

Will you prefer to not be mixed?

Why?

Which is your favourite place among the neighbour?

Is there any particular place that you avoid around?

Do you think people have a particular perception of your neighbour?
Good Bad

Sustainability

Do you frequent the common places for meeting? (Church, salons, playgrounds, etc)

Do you participate in community activities?

Is there a board in charge of the infrastructure, and other problems?

Do you participate with the environmental program of the project?

Attractiveness

Do you like the exterior treatment of the building?

Do you like the interior treatment of the building?

Do you want to move from this neighbourhood?

Human Scales

Do your visitors get lost when they come for the first time to your house?

Do you feel that the pedestrian and the bicycle path are well defined?

Do you find the services in a convenient distance from your apartment?