



Collaborative Planning for Post-Disaster Reconstruction in Italy: Community Participation in four Small Towns, Focusing on Novi di Modena

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Community participation after a disaster is widely acknowledged to be crucial in both mitigation and reconstruction planning; however, to date very little research has been done on collaborative planning in a post-disaster context. This paper addresses the issue of collaborative planning for post-disaster reconstruction to effectively facilitate community participatory processes. First, we surveyed the characteristics of community participation for post-disaster reconstruction in Italy. Second, we studied the regional legislative regulations for reconstruction in Emilia-Romagna. Third, we compared the community participation and formulation processes of reconstruction planning tools used by communities. Lastly, we verified the dynamic mechanism of the town of Novi di Modena's reconstruction planning process by using an evaluation framework with two axes: stage of planning process and community participation level. As a conclusion, we identified three key factors that encourage collaborative planning for reconstruction. The first key factor is the timing of the participatory process must be well managed. The second is a participatory proposal shared with citizens, which must be considered the guiding document for local development. The third key factor is regeneration scenarios for the whole territory considering the different periods must be defined, as well as the implementation strategies and tactics for each urban core.

Keywords: post-disaster reconstruction, collaborative planning, community participation, reconstruction planning history

INTRODUCTION

Over the last half-century, Italy has had a painful history of catastrophic natural disasters, and in particular several mega-earthquakes within these disasters have caused severe damage represented by loss of life and property in different regions (Valeriani and Bertelli, 2017). Most of the devastated areas are small, isolated rural settlements, and therefore "effort to encourage decision-making and collaboration with different actors is necessary to reconstruct such suffered areas" (Ceccarelli, 2017, p.99). Communities face difficult challenges in post-disaster reconstruction since the many actors involved have diverse socio-economic backgrounds (Ceccarelli, 2017) and since the recovery process is so complex and compressed in time (Olshansky et al., 2008; Olshansky et al., 2012). Despite such difficulties, to take advantage of strengthened community bonds after a disaster strikes, communities must give voice to their citizens as participants in the post-disaster reconstruction decision-making process (Berke and Campanella, 2006; Ceccarelli, 2017; Ganapati and Ganapati, 2008).

This paper addresses the issue of collaborative planning for post-disaster reconstruction to effectively facilitate the community participatory processes and identifies key factors in successful collaboration gleaned from past Italian reconstruction planning. Community participation, after a disaster, is widely acknowledged to be crucial in both mitigation and reconstruction planning. Berke and Campanella (2006, p.193) indicate by involving and consulting residents in all phases of planning, the pre-disaster recovery planning process can create a knowledgeable constituency. In addition, the collaborative process of reconstruction planning can help "build the necessary momentum to keep the community moving forward" (Schwab, 2014, p.120). Little research has been done on the collaborative planning process for long-term reconstruction, despite some recent focus on community participation after a disaster strikes (Chandrasekhar, 2012). Some of this research has focused on the factors and requirements of a community participatory approach to residential reconstruction projects, with researchers making qualitative inquiries such as field interviews with various stakeholders (Daly and Brassard, 2011; Ganapati and Ganapati, 2008; Sadiqi and Trigunaryah and Coffey, 2017). On the other hand, in some empirical studies and practices, the authors get involved in the collaborative planning process via a university-community partnership and then detail these processes in their work (Reardon, 2009; Satoh, 2014). This type of



collaborative study with first-hand observation illustrates the complex recovery process vividly and shows an understanding of quality outcomes as collaborative processes themselves. Approaching a theory of collaborative planning in a post-disaster context, a new evaluation framework of the reconstruction planning process should be indexed to the level of community participation by referring to some established frameworks for measuring citizen participation and also by adjusting them in a post-disaster context.

This paper attempts to reveal the dynamic mechanism of community participation in post-disaster reconstruction planning in the town of Novi di Modena in Italy's Emilia-Romagna region after a 2012 earthquake from the viewpoint of collaborative planning. First, focusing on three different quake disasters, we surveyed the characteristics of community participation in an Italian post-disaster context by conducting a literature survey and field interviews. Second, we studied the regional legislation framework and specific rules for the reconstruction in Emilia-Romagna region. Third, we surveyed the pre-existing ordinary planning at the municipal level in four different local administrations; then, we compared the community participation path with the formulation process of the reconstruction plan and programme among towns with the five defined stages of reconstruction. And lastly, focusing on the town of Novi di Modena, we estimated the impact of community participation in the reconstruction planning process with the evaluation framework.

CHARACTERISTICS OF COMMUNITY PARTICIPATION FOR POST-DISASTER RECONSTRUCTION IN ITALY

As Lazzati (2018) notes, since the 1950s, Italy has adopted case-by-case solutions to post-disaster response, and community participation has had different roles in these solutions. Based on a literature survey and field interviews, this section attempts to illustrate the characteristics of community participation in an Italian post-disaster context, taking three reconstruction cases, the Friuli earthquake in 1976, the Abruzzo earthquake in 2009 and Emilia-Romagna earthquake in 2012, and classifying them under three criteria; objective/goal, main actors and period.

In the case of reconstruction after the 1976 Friuli quake, the mayor and local administration conducted several public assemblies to share with the public as a whole the most important decisions to be made in the reconstruction.¹ From the beginning of the emergency phase, citizen groups were spontaneously organised at the areas of the evacuation tents, prefabricated settlements (Consiglio Regionale del Friuli Venezia Giulia, 2016). The objective of these groups was to attract attention from outside the devastated areas to conserve the original architecture heritage as much as possible. In short, in an attempt to avoid what happened in post-disaster Sicily in 1968, when modern structures were built where many historical buildings had stood, they tried to engage inhabitants to embrace the reconstruction principle '*dov'era,com'era* (where it was, how it was)'.²

In the second case, the 2009 Abruzzo earthquake, community participation was strongly affected by the central government's top-down approach during the first three years after the emergency: DPC (*Dipartimento Protezione Civile*) managed the provision of wooden housing units and quake proof housing complex in the periphery of L'Aquila City (Mashiko et al., 2017). Immediately after the earthquake, many citizens organised and gathered in front of the main square at the historical centre to get involved in the discussion of L'Aquila reconstruction.³ They opposed the exclusion from any decision-making of not only local people but also the Mayor of L'Aquila (Lazzati, 2018). Under the restrictions on citizen participation, INU (*Istituto Nazionale di Urbanistica*) and ANSCA (*Associazione Nazionale Centri Storici Artistici*) established the LAURAq (*Laboratorio Urbanistico L'Aquila*) organisation as an initiative to confront L'Aquila reconstruction and their priority was to recover historical centres.⁴ LAURAq held a series of workshops and public forums, in which inhabitants, citizen groups, urban planners have been engaged, to encourage the population to participate in the planning for reconstruction and to help L'Aquila's administration in the formulation of its reconstruction plan. On the other hand, during the recovery plan implementation phase, Urban Center L'Aquila (UCAQ) has allied with citizen groups and associations that emerged after the earthquake, the University of L'Aquila and the municipality of L'Aquila as a third sector (Mashiko et al., 2017). The aim of UCAQ is "to create a platform for public discussion that offers an opportunity to discuss citizen participation" (Mashiko et al., 2017, p.191).

In the third case, reconstruction after the 2012 Emilia-Romagna earthquake, different local municipalities in the devastated areas devised new customs and opportunities with the local community, encouraging citizens to participate in the reconstruction process (Guarino, 2015). The regional law recognises the importance of stakeholders' participation in enhancing the effectiveness of the reconstruction plan, thanks to both the base of an active and engaged civil society and the institutionalisation of a participatory approach at the regional governmental level (Lazzati, 2018). Relying on the participation of municipalities, the regional government launched a diverse approach to participation in different stages of the reconstruction process, including sharing information about reconstruction of the historical centre with citizens and crafting a common vision for the future of urban cores and their territories. This participatory approach to the reconstruction planning process has



encouraged the dynamic community engagement of not only the local administration, professionals and citizens but also of citizen groups and local associations established after the earthquake (Guarino, 2015).

From these three reconstruction cases we classified the reviewed community participation into five types based on three criteria; objective/goal, main actors and period. Table 1 shows the five types of community participation and how these types are corresponding to three reconstruction cases. In three cases, type 1 of Grass-roots Activity is commonly measured; on the other hand, the other four types, Local Assembly, Public Forum, Discussion Platform and Collaborative Planning, are verified in each reconstruction case. Through this classification, we grasped that type 5 of Collaborative Planning is observed only in the Emilia-Romagna case, and from the next section onwards we deeply focus on it.

Table 1: Classification of community participation in an Italian post-disaster context

	TYPE 1 Grass-roots Activity	TYPE 2 Local Assembly	TYPE 3 Public Forum	TYPE 4 Discussion Platform	TYPE 5 Collaborative Planning
Objective / Goal	- Conserving the original architecture heritage as much as possible - Getting involved in the discussion for reconstruction	- Sharing with the public as a whole the most important decisions for reconstruction	- Holding workshops involved with citizens, planners and municipality - Supporting local administration for plan formulation	- Creating a platform organization (UCAQ) for public discussion - Offering an opportunity to discuss citizen participation	- Sharing information about the reconstruction - Building a common vision for the future of urban cores and their territories
Main Actors	Citizens / Citizen Groups	Mayor / Citizens / Local Administration	National Institute of Planning / National Historical Art Association	Citizen Groups / Local Associations / University / Municipality	Citizens / Professionals / Local Administration / Citizen Group & Local Association
Period	From Emergency Period	From Emergency Period	Planning Period for Reconstruction	Implementation Period of Reconstruction Plan	From Planning Period for Reconstruction
1976 FRIULI	●	●			
2009 ABRUZZO	●		●	●	
2012 EMILIA-ROMAGNA	●				●

LEGISLATIVE FRAMEWORK AND SPECIFIC RULES FOR RECONSTRUCTION AFTER THE 2012 EMILIA-ROMAGNA EARTHQUAKE

In this section, we will outline the legislative framework and specific rules for reconstruction at the regional level. Thanks to the technical structure of the Special Commission for Reconstruction, over a period of four years, the regional government has accompanied the many municipalities most affected by the earthquake step by step, particularly in the execution of the reconstruction plans, the plans for public works, the drafting of the *‘Programma Speciale d’Area’*, a strategic programme for the seismic crater and, finally, the definition of the *‘Piano Organico’*, a special operational program for the revitalization of the historical centres. The government undertook the tremendous job of spearheading the first three years of reconstruction, after which it spun off a special agency to continue the recovery process. It has now fully outsourced the functions and operational technical offices for the reconstruction to the Regional Agency for the Recovery–Emilia 2012. This new body is a technical structure that manages all the necessary procedures while at the political level, the regional government still define rules, norms and provisions and makes strategic decisions.

It is important to emphasise the impact that the articulation of a regulatory framework has had on the success of the first phase of reconstruction and its future fulfilment. A remarkable innovation by the regional government was the enactment of the first and only regional law for the reconstruction, the *Legge Regionale* (Regional Law) n.16/2012, designed to establish consistency among reconstruction plans and ordinary urban planning tools. For the first time in the Italian legal system, governmental response to disaster and emergency was not top down but a participatory process developed in cooperation with an Institutional Committee. Since 2012, the Institutional Committee has coordinated decisions among the Special Commissioner, several regional departments, all the municipalities involved and some specific committees.

Thanks to this continuous drive for coordination, regional mayors and commissioners were able to represent the needs, desires, wishes, problems and expectations of the many local communities and citizen groups thanks to collaboration with the Institutional Committee and its specialised organisation.

COMPARISON OF THE COMMUNITY PARTICIPATION AND FORMULATION PROCESS OF RECONSTRUCTION PLAN IN FOUR TOWNS



While our previous overview of reconstruction legislation and specific rules was at the regional level, this section will compare the community participation and the formulation process of reconstruction plans of four local administrations. We selected the four towns of *Novi di Modena* (Novi), *San Felice sul Panaro* (San Felice), *Concordia sulla Secchia* (Concordia) and *Mirandola* because they met the following criteria: (a) the towns must have suffered serious physical damage and subsequently constructed a high number of prefabricated modules in an urban area; (b) the towns must have established both ‘*Piano della Ricostruzione*’, a reconstruction plan, and ‘*Piano Organico*’, an organic operational programme; (c) the towns must have applied ‘*Bando Ricostruzione*’, regional financing to support the participation process. In the analysis of the processes of community participation and plan/programme formulation, it should be noted what types of ordinary planning tools the four towns already had in place, because a reconstruction plan is an operational urban planning tool that integrates existing plans and achieves the improvement of urban quality.⁵

A review of pre-existing ordinary planning tools before the earthquake reveals, as shown in Table 2, that the four towns are mainly divided into two types: Two municipalities, San Felice and Concordia, adopted new planning procedures before the earthquake, and the two others, Novi and Mirandola, continued to use old planning procedures after the earthquake. San Felice and Concordia implemented the new ‘*Piano Strutturale Comunale*’ (PSC), which outlines the strategic choices of arrangement and development for the whole local municipality.⁶ In short, only two of the four municipalities determined territorial strategies in their administrative district before the earthquake. Because Mirandola was in the process of establishing a new planning process right before the earthquake,⁷ only Novi had the daunting task of establishing a new territorial vision and future strategy after the earthquake while at the same time forming and carrying out a physical recovery plan for damaged buildings.

Table 2: Pre-existing urban planning tools before the earthquake

	Old Procedure for town planning			New Procedure for town planning	
	Piano Integrato di Recupero [Integrated restoration plan]	Piano Regolatore Generale [General urban development plan]	Piano Strutturale Comunale [Municipal strategic plan]	Regolamento Urbanistico Edilizio [Housing planning regulation]	Piano Operativo Comunale [Municipal operational plan]
Novi di Modena	Approved with D.C.C n.120 in 29/11/1995 [Centro Storico/Frazione]	Revision of PRG was approved with Del.G.R n.448 in 31/07/2000	Not existing	Not existing	Not existing
San Felice s/P	Not existed	Transformed to PSC/RUE/POC before the earthquake 2012	Approved with D.C.C n.25 in 22/04/2009	Approved with D.C.C n.26 in 22/04/2009	Approved with D.C.C n.46 in 28/7/2011
Concordia s/S	Not existed	Transformed to PSC/RUE/POC before the earthquake 2012	Approved with D.C.C n.23 in 24/04/2009	Approved with D.C.C n.70 in 26/10/2009	Not existed, but approved with D.C.C n.87 in 23/12/2013
Mirandola	Approved with D.C.C n.146 in 23/07/2001 [Centro Storico]	Revision of PRG was approved with Del.G.R n.153 in 17/04/2001	Not existed, but approved with D.C.C n.111 in 27/07/2015	Not existed, but approved with D.C.C n.112 in 27/07/2015	Not existed, but approved with D.C.C n.111 in 27/07/2015

Figure 1 illustrates the formulation processes of reconstruction planning tools and the community participatory process in four towns, pulled from the following official documents: 1) the reconstruction plan; 2) the organic operational programme; 3) the report on regional financing for the participation process; 4) the community participation reports edited by facilitators. Moreover, to make a comparison of community participation paths, the five stages are defined as follow: 1) activation stage of understanding community problems and identifying needs and aspirations for reconstruction; 2) visioning stage of building future vision and common strategical framework for a whole territory; 3) project planning stage of discussing participatory projects for urban regeneration; 4) project realization stage of carrying out construction projects and making an agreement for management; 5) evaluation stage of organising debate opportunities to evaluate effects and impacts of the participatory process.

Comparing the towns’ timelines, two of them, Novi and San Felice, divided their reconstruction plans into two versions, the acceptance dates of these second plans being later than the dates in Concordia and Mirandola, which drafted one version only. Novi’s second reconstruction plan, for example, was accepted by the municipal council on 22 December 2014, 13 months later than Mirandola’s acceptance date, although Mirandola had modified its plan three times after regional government approval. Looking at the processes of community participation, we can observe their four characteristics as follows: Novi has launched a single continuous participatory action, ‘*Fatti il Centro Tuo!*’, with all five stages of the participatory process from activation to evaluation; San Felice has launched a single intermediate continuous participation action, ‘*PIU’ sanFELICE*’, containing the two stages of activation and visioning; Concordia has launched two short-term separate participation actions, ‘*Focus Group*’ and ‘*Dalla calamità alla calamita*’, with the two stages of activation and project planning; Mirandola has launched a single short-term participation action, ‘*Immagina Mirandola*’, twice, at the beginning of 2014 and at the end of 2017, with the activation stage and before the earthquake had organised participatory workshops with multi-stakeholders for the elaboration of PSC. The development of participatory action in three towns, San Felice, Concordia and Mirandola, has proceeded discontinuously, and only Novi’s development progressed in a single continuous fashion with all stages of the participatory process.

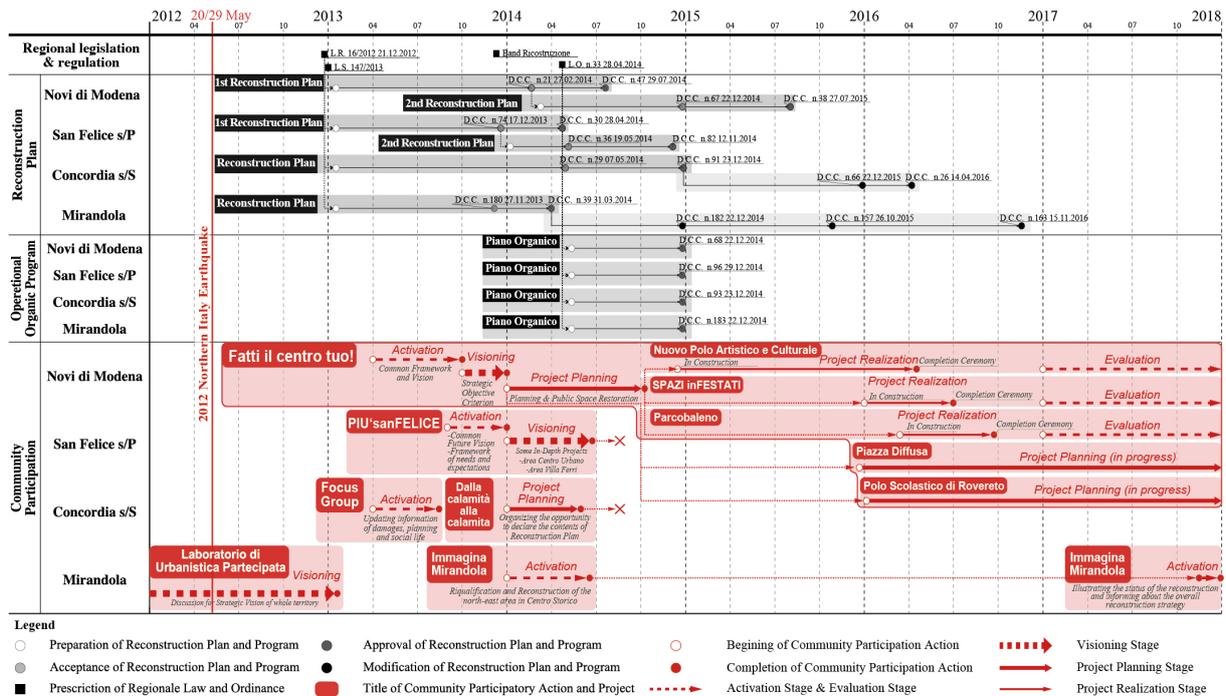


Figure 1: Processes of planning tool formulation and community participation for reconstruction

DYNAMIC MECHANISM OF THE COLLABORATIVE PLANNING PROCESS IN NOVI DI MODENA

This section covers the community participation process of Novi di Modena, which among the four towns studied had the only continuous participation action, and attempts to disclose their dynamic mechanism of collaborative planning process for the reconstruction. First, a review of community participation reports aims to discover how the ideas proposed and obtained through community participation have been integrated into planning and project implementation tools in both extraordinary and ordinary situations.

Novi's collaborative planning process is unique in that all of the involvement actions have flexibly in their decisional dynamics via a ritual of collective debate defined by careful management of the timing of participatory activities: one activity per week at first, then one every two weeks. This short-term rhythm made it possible to reconstitute the needs and aspirations of individuals into common-sense proposals. These collective ideas became the '*Documento di Proposta partecipata*' (DocPP), a participatory proposal document containing an organised synthesis of the community's proposal for the decision-making authorities to consider in their deliberations. In addition, this document represents the unique guideline and interface between the 'extraordinary' tools, such as '*Piano della Ricostruzione*' (Reconstruction Plan) and '*Piano Organico*' (Operational Organic Program), and the 'ordinary' tools, '*Programma Triennale ed Elenco Annuale delle Opere Pubbliche*' (Triennial Program and Annual List of Public Works), '*Piano urbanistico generale*' (General urban plan) and '*Accordi Operativi*' (Operational Agreements) (Figure 2). These implementation tools have helped realise participatory activities with the support of regional contributions to community participation under Regional Law n.3/2010.

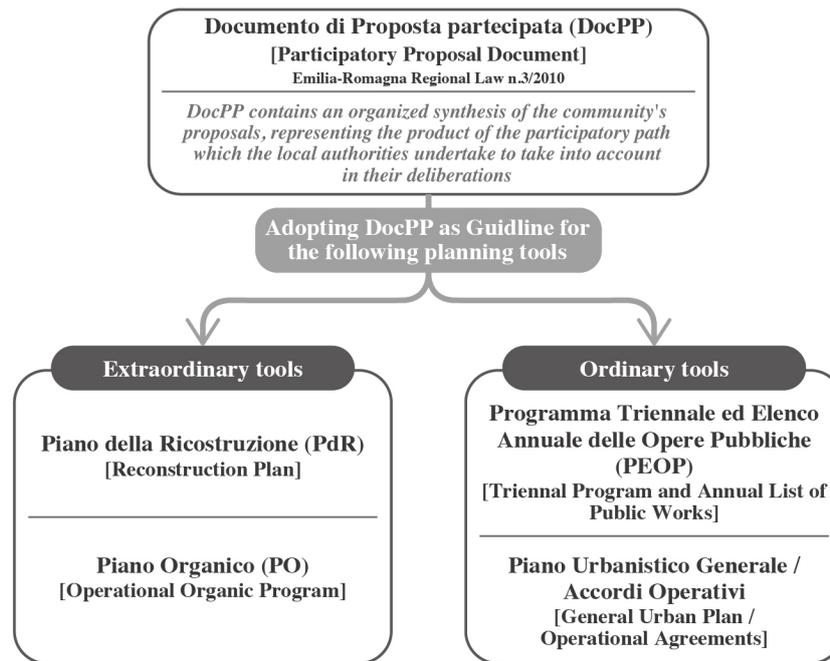


Figure 2: The relationship of outcomes through the collaborative planning process

Second, by setting two evaluation axes to categorize five different participation paths, the impacts of each path reflecting on three types of outcomes are verified. The first evaluation axis encompasses the five defined stages of the planning process discussed in the previous section. In order to define the second evaluation axis of community participation level, on the other hand, some established frameworks in an ordinary situation are reviewed. In *A Ladder Of Citizen Participation*, Sherry R. Arnstein (1969) illustrated the eight levels of citizen participation arranged in a ladder pattern; in recent years, Bratt and Reardon (2013, p.357) have offered a new theoretical understanding of the role of residents in community development, evaluated based on two planning process examples from the United States. Taking into account a peculiarity of post-disaster reconstruction, in other words, time compression (Olshansky et al., 2012), and strengthening community bonds (Ceccarelli, 2017), two of the middle three rungs, Informing and Consultation, and two of the highest three rungs, Partnership and Delegated Power, should be crucial levels for maximizing the effect of community participation in a limited period. The four levels of community participation are defined as follows: 1) Information level of sharing data, analysis and proposals to enable participants to have a voice; 2) Consultation level of asking participants' opinions based on given information; 3) Partnership level enabling participants to collaborate and negotiate in the decision-making process and 4) Empowerment level of delegating full managerial power to citizens or related citizen groups. In addition, in relation to Bratt and Reardon's three contextual variables, we are identifying three key factors to build supportive environment for community participation from catastrophic circumstances after a disaster strikes.

To measure community participation, we have used the official reports^{8,9} that are published on the website of local administration and have interviewed the programme coordinator.¹⁰ Following the evaluation framework with two axes, five participatory paths are situated as shown Table 3. This table illustrates that from STEP 1 to STEP 4, the level of community participation is gradually going up starting from 'Information', being achieved at the 'Empowerment' step and finally achieving all the levels of community participation. Subsequently, since the beginning of 2017 the participatory level of STEP 5 has been returning to the 'Information' and 'Consultation' step in order to evaluate the effects and impacts of participatory action '*Fatti il Centro Tuo!*' By measuring all participatory paths with this new framework, in other words, combining a sequence of reconstruction stages into the Arnstein Ladder framework regarding a post-disaster context carefully, we specifically visualized the significant gradation of community participation in the town of Novi di Modena.



Table 3: An evaluation framework of the participatory paths of Novi di Modena

Stages of Participatory Process		Community Participation Level			
		1. INFORMATION <i>telling data/analysis</i>	2. CONSULTATION <i>asking data/opinions</i>	3. PARTNERSHIP <i>collaborating / negotiating</i>	4. EMPOWERMENT <i>delegating</i>
1 ACTIVATION STAGE	<i>Problem & Needs</i>	STEP 1 'Fatti il centro tuo!' <i>participatory path (from April to September, 2013)</i>			
2 VISIONING STAGE	<i>Scenarios & Strategies</i>		STEP 2 'Fatti il centro tuo!' <i>participatory path (from October to December, 2013)</i>		
3 PROJECT PLANNING STAGE	<i>Project Designs</i>		STEP 3 'Fatti il centro tuo!' <i>participatory path (from January to September, 2014)</i>		
4 PROJECT REALIZATION STAGE	<i>Implementation & Management</i>			STEP 4 'Fatti il centro tuo!' <i>Parcobaleno/Spazi inFestanti/PAC</i> <i>participatory path (from 2015 to 2016)</i>	
5 EVALUATION STAGE	<i>Verification of effects and impacts</i>	STEP 5 'Fatti il centro tuo!' <i>participatory path (from 2017 in progress)</i>			

Table 4 shows how each step of the participatory path is organised with participants and activities into three types of outcomes. The impacts of each step are as follows:

In STEP 1, the critical issues and the opportunities for reconstruction are consolidated into DocPP to share basic data and analysis with participants and to gather their opinions in a common framework. For example, community needs and aspirations for the three 'frazione' (small districts) of Novi, Rovereto and Sant' Antonio can be summed up in an analytical framework.

In STEP 2, scenarios and strategies for the regeneration of the whole territory are consolidated into DocPP, collaborating and negotiating in their decision-making process based on the opinions in three different 'frazione'. For example, three vocations for the whole territory and nine common strategic measures for each 'frazione' emerged from the series of collective debates. These outcomes of the participatory processes of STEP1 and STEP 2 comprised the first version of the PDR,

In STEP 3, the priorities of intervention to encourage reconstruction are consolidated into DocPP, negotiating the concrete projects according to the given scenarios and strategies. For example, project planning was divided into 15 project conditions for 45 proposals; then, five pilot projects were considered priorities for the regeneration of the territory and the three districts. The outcomes of STEP 3 such as an urban regeneration framework, identification of project objectives and definition of interventions were included in the PO, and five pilot projects were adopted into the PEO.

In STEP 4, the collaborative agreements between the local administration and the community for the management of new common spaces were consolidated into DocPP, delegating to each community the power of participatory management of green spaces related to the project 'SPAZI inFESTATI'. According to the PEO, three participatory projects, 'Parcobaleno', 'SPAZI inFESTATI' and 'Nuovo Polo Artistico e Culturale' were completed at the end of 2016, while two projects, 'Piazza Diffusa di Novi' and 'Nuovo Polo Scolastico di Rovereto', are currently in the planning stage.

Presently, STEP 5, the evaluation stage of the effect and impact of the continuous participatory process, is a work in progress.



Table 4: The outcomes of five participatory paths

FATTI IL CENTRO TUO !		OUTCOMES		
STEP	Activities / Participants	Documento di Proposta partecipata (DocPP)	Extraordinary Tools	Ordinary Tools
STEP 1 Guiding Question: What are the critical issues to face, what are the opportunities to gather for reconstruction?	Activities Listening days : 35 Workshop : 6 Exhibition : 1 Collective Learning days : 15 Participants Citizens (adult/child) : 897 Associations / Groups : 30 Specialists : 54 University : 1	Analysis Framework: Identification of the needs and aspirations for the individual <i>frazione</i> Novi, Robereto, and Sant' Antonio	Reconstruction Plan (PdR): Plan Preparation / UMI definition / Protection of the historical-architectural heritage locating in the rural territory Considered Proposals of DocPP: Develop green-blue ecological systems and infrastructures, Improve the permeability and functionality of green spaces, Assign a structuring role to parks and river areas, Manage the coexistence of rural areas with residential functions by encouraging the multifunctionality of agriculture, Re-evaluate the agricultural areas also for tourism, Treat the territorial components that impoverish the community dimension as barriers	General Urban Planning: Being able to propose indications for the cognitive framework in the future
STEP 2 Guiding Question: What are the strategies of interventions for regeneration as a whole territory?	Activities Workshop : 19 Exhibition : 1 Collective Learning days : 12 Participants Citizens (child/teacher/merchant) : 90 Associations / Groups : 25 Categorized Associations : 3 Specialists : 31	Vision: Identification of the strategic objectives for territorial regeneration and the guidelines for project planning; 3 vocations for the whole territory and 9 strategic measures for 3 <i>frazione</i>	Reconstruction Plan (PdR): Insights and rules for redevelopment of urban areas Considered Proposals of DocPP: <ul style="list-style-type: none"> Re-qualify the center starting from neighborhood services and polarity, Strengthening the territorial links between existing structures, Enhancing community potential, Increasing the social performance of the public space through flexibility and functional mix, Introducing new concentrations of uses, Maintain in the public space a balanced presence of different social classes-age groups-cultural groups. Developing the quantity and quality of aggregation points, Exploring new ways of using public spaces, Enhancing urban fabrics with different activities that return an image of community, Acting on public space, Creating conditions for spontaneous use over time of daily life and the co-participation of structured initiatives over time, Supporting the variety of functions and widespread sociality. 	General Urban Planning: Being able to propose guidelines for urban and territorial regeneration of the territory in the future
STEP 3 Guiding Question: What are the priorities for incentive interventions for reconstruction?	Activities Group Work & Focus Group : 39 Plenary assemblies : 6 Urban Exhibition : 1 Collective Learning days : 20 Participants Citizens (adult/child/senior/teacher/merchant) : 347 Associations / Groups : 28 Categorized Associations : 3 Specialists : 34 University : 3	Priority: Identification of the pilot projects (Piazza Diffusa, Parcobaleno, Spazi in Festanti, Polo Artistico Culturale, Nuovo Polo Scolastico di Robereto); 15 projects situations for total of 45 proposals	Operational Organic Program(PO): Urban framework, identification of objectives, and definition of interventions Focus of the Plan: Definition of the interventions to qualify the reconstruction for urban cores, to regenerate public and private spaces, to revitalize social and economic functions, and to attract residents and businesses Considered Proposals of DocPP: <ul style="list-style-type: none"> Definition of urban planning and functional morphological architectural qualification of public spaces and public use in the central area, to assign an organic and recognizable urban continuity together with a more readable quality The integrated promotion of environmental and cultural heritage in support of social and economic development 	Triennial Program and Annual List of Public Works (PEOP): Piazza Diffusa: redevelop, revitalize, regenerate the urban public spaces of historical center NOVI SPAZI inFESTATI: co-project planning and co-realization equipped for the festival and conviviality for community Parcobaleno: define which urban furnitures to realize in public areas to make suitable place for young people Polo Scolastico di Robereto: design the educational spaces to complete the new school centers and community center Polo Artistico e Culturale: optimize active cultural presences by concentrating spaces, actions and visions to retain everyday life
STEP 4 Guiding Question: How to activate the community in the management of new commons?	Activities Focus Group : 3 Plenary assemblies : 1 Urban Exhibition : 2 Participants Citizens : 297 Associations / Groups : 10	Collaborative Agreement: Estimated with the collaboration agreements between local administration and community for participatory management of the green spaces, interesting with the project 'SPAZI inFESTATI	———	Triennial Program and Annual List of Public Works (PEOP): Piazza Diffusa: defined the preliminary project, and now the definitive and executive design in progress SPAZI inFESTATI: realized the interventions and defined the collaboration agreements for participatory management Parcobaleno: all the interventions have been carried out Polo Scolastico di Robereto: defined the guidelines for project planning of new educational community center in Robereto Polo Artistico e Culturale: all the interventions have been carried out
STEP 5 Guiding Question: How reconstruction is generating community and territory?	Work in progress	Work in progress	Work in progress	Work in progress

CONCLUSION

How can we effectively facilitate community participation in the planning process for post-disaster reconstruction? To answer this question, this paper examined the dynamic mechanism of Novi di Modena's reconstruction planning process via an evaluation framework with two axes: the stage of the planning process and community participation levels. From this evaluation of the participatory paths and their outcomes, we can identify three key factors for collaborative post-disaster planning as our summary findings:

The first key factor is the timing of the participatory process must be well managed: it is important to establish a rhythm for public debate activities with one activity per week at the outset then one activity every two weeks, correlating this rhythm with the timing of public decisions. Local authorities must decide quickly in the initial post-disaster recovery phase on the re-establishment of public services. They have more time to make decisions about secondary subjects including such things as community space, culture and sports. The second



key factor is the participatory proposal document, including all ideas shared with citizens must be considered the guiding document for local development, taking into account both reconstruction and urban regeneration. Ultimately, it becomes a reference tool for extraordinary and ordinary planning. In this way, the outcomes of the participatory path can be achieved gradually without losing its vision. The third key factor is in the post-event phase there is the urgent need to immediately implement individual intervention at the same time defining regeneration scenarios for the whole territory, considering the short-, medium- and long-term period of project realization. For territories to preserve their socio-economic status, each urban core must define its urban strategy and tactical plans. These are complex scenarios, strategies and tactics that take into account several thematic areas, different modes of intervention and collaboration between public and private stakeholders and communities.

Finally, this paper presents two discussions comparing Novi di Modena with the other three towns. The first discussion determines that as opposed to Novi di Modena, different conditions in the other three towns have limited or impeded the consideration of three factors identified for qualitative participation. Since they had adopted or had been revising the new municipal strategic plan, they might not draw new territorial regeneration scenarios and common vision for 'new' future after the earthquake with local community. Moreover, most of their participatory proposal documents can contain subordinate characteristic under the main planning procedure; the rhythm of their activities may be managed depending on the needed timing for the local administrations. The second discussion determines the result of reconstruction in terms of continuous community participation. The consideration of three factors has led Novi di Modena to mature the valuable process, since the different points of view have developed integrated perspective and every public debate has defined the steps to achieve a common vision. These aspects represent the greatest difference with the other three towns. The continuity of community participation has enhanced the citizen's ability to contribute to the elaboration of scenarios and to bring out the qualitative potential that only those who know their own environment of life can trace by reasoning on the desired impacts and on the future effects.

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Endnotes

¹ Istituto Nazionale di Urbanistica Sezione Friuli Venezia Giulia, "Friuli 1976: Un Modello o Un Laboratorio della Ricostruzione?."

² Aldo Di Bernardo, interview, December 14, 2017.

³ Donato Di Ludovico, interview, July 27, 2016.

⁴ "LAURAQ," Laboratorio Urbanistico per la Ricostruzione dell'Aquila, accessed March 17, 2018, <http://www.laboratoriourbanisticoaquila.eu/index.html>

⁵ Barbara Nerozzi ed., "Il Piano della ricostruzione : un nuovo approccio disciplinare metodologico," *Inforum*, no.45 (May 2015): 12-15.

⁶ Emilia-Romagna Region. Legge Regionale n.20/2000, on "Disciplina generale sulla tutela e l'uso del territorio," art. 28.

⁷ Comune di Mirandola, "Piano Strutturale Comunale," 9.

⁸ Comune di Novi di Modena, "Piano Organico" ,accessed June 1, 2018, <https://www.comune.novi.mo.it/index.php/amministrazione-trasparente/pianificazione-e-governo-del-territorio/263-atti-di-governo-approvati/1023-piano-organico-approvato>

⁹ Comune di Novi di Modena, "Fatti il Centro Tuo!," accessed June 1, 2018, <https://www.comune.novi.mo.it/index.php/fatti-il-centro-tuo>

¹⁰ Monia Guarino, interview, March 2, 2016.

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