

CASE STUDY

Open Access



# The regeneration policy and housing issue. The Italian case read through the history of Foggia (IT)

Mariella Annese<sup>1\*</sup> , Laura Ariola<sup>1</sup>, Ilaria Lucia Mezzapesa<sup>1</sup> and Natalia Roberto<sup>1</sup>

## Abstract

Urban regeneration is aimed at improving settlement contexts, and indirectly at solving the housing issue. In Italy there is no national regulation on urban regeneration, but many policies from 2000 up to now have resorted to it with the aim of intervening and containing the housing problem. The work examines the city of Foggia, in southern Italy, an area in a demographic contraction, but equally characterized by “high housing tension”, indeed there are numerous eviction proceedings, in the private and public sector of the house, and, as a consequence, phenomena of illegal occupation housing, abandoned buildings, informal settlements. The research will look at how in the last 20 years various national public funding (among these, the last PNRR—Piano Nazionale di Ripresa e Resilienza derived from the Next Generation EU) and regional ones have resorted to urban regeneration strategies to address the problem, reporting failures, gaps and relevant issues.

**Keywords** Urban regeneration, Housing issue, Housing shortage, Social change

## Introduction. The issue of housing and urban regeneration in Italy

The issue of housing is of great relevance and importance in Italy and Europe. Challenges related to the quality of housing and housing poverty significantly impact the lives of citizens, creating discomfort and distancing a large portion of the population from adequate housing conditions (Nomisma 2020).

The term housing discomfort primarily refers to problems related to housing ownership (FEANTSA 2007), including individual economic aspects (income) and collective factors (the housing market). It also encompasses issues related to numerous social transformations and the changes they bring to housing demands. This raises questions about how to interpret and address discomfort as a

multidimensional and widespread phenomenon. The territorial dimension further shifts the problem to the field of urban policies, not only for controlling the locational and parametric aspects of public and social housing but also for achieving settlement quality objectives (Palvarini 2006).

Due to its complexity, the housing issue requires constant attention and targeted policies that are also multi-sectoral, with a holistic vision that goes beyond considering housing as a mere material good. It is necessary to consider the social, economic, and environmental context in which housing is situated, as well as its connections to other aspects of people’s lives. It is essential to address these challenges systematically and in an integrated manner, adopting housing policies that encompass all the dimensions involved. This includes promoting equity in access to services and opportunities, the quality of material and immaterial relationships, and the environmental sustainability of contexts.

These various considerations have led to the consideration of urban regeneration as a mode of intervention

\*Correspondence:

Mariella Annese  
mariella.annese@poliba.it

<sup>1</sup> Dipartimento di Architettura, Costruzione e Design, Politecnico di Bari, ArCoD, via Orabona 4, 70125 Bari, Italy

capable of addressing the housing issue, although sometimes mistakenly viewed as an effective antidote.

### A vague definition

Despite urban regeneration having appeared in the scientific literature and in the Italian debate since the '90 s, with the period of Programmi Urbani Complessi (Storto 2019; Palermo and Savoldi 2002) as of now there is still no clear definition for it.<sup>1</sup>

In general terms, it has been interpreted as a challenge for urban growth and productivity and the definition of a quality paradigm, as a response to urban decline (Robert and Sykes 2000), with a focus on the transformation of unsustainable existing urban spaces (Rosenthal and Strange 2003; Calafati 2009). In operational terms, it has been intended as both a physical redevelopment and a restoration of the (social, economic, and environmental) complexity of settlements (Mantini 2013).

Since the start, this concept has hence been polysemic and wide, since it included both recovery intervention and urban building renovation, but also environmental remediation, interventions “against” urban decay, and in general any action for the definition of higher urban quality and the achievement of immaterial objectives. The latter also includes economic and social ones, despite them being difficult to practically individuate and measure. Since the start of the '00 s onwards, the search for new urban balances has led to an environmental interpretation of regeneration, associated with: the redesign and maintenance of public spaces through the regeneration of abandoned spaces, the redesign of cycles, and the reduction of (energy, and land) consumption. The wide scope of the concept has led to a fair blurring of transformation interventions (Rossi and Vanolo 2013; Talia and D’Onofrio 2015), outlining several intervention models, ranging from building-related ones to those for a holistic improvement of the inhabitants’ living conditions.

For all these reasons, urban regeneration has often been transversal to several public policies, without a specific national policy as a reference (Gardini 2020).

Since 2008, Regional administrations have attempted to fill the legislative gap by experimenting with various articulations of regeneration, attempts for a national law started in 2016 and never found a conclusion (Fig. 1).

Throughout the attempts of rendering this concept into the legislative framework,<sup>2</sup> the environmental

components have achieved a relevant magnitude, aiming at three main objectives: (i) zero land consumption, (ii) re-naturalization of anthropized land, and (iii) increase of urban biodiversity. Hence, the lawmakers have taken the chance of rendering urban regeneration into an orientation of urban policy toward the realization of a model of a “fair city”, essentially trying to re-establish environmental justice, which is considered to foster all other forms of spatial justice (Lefebvre 1976).

So, in draft laws, the theme of land consumption has taken a key role, since the goal of individuating the actions to contrast urban expansion was pursued by defining how urban regeneration can be performed in urbanized areas, for the reactivation of consolidated yet decayed contexts. Unlike its theoretical background, the policy that regulates urban regeneration derives in primis from the policy of land consumption reduction, which is a key theme in European policies that consider the environmental issue as the logical premise for sustainable development (Bellicini 2015).

Land consumption and urban regeneration are strongly tied, to the point that many authors who seek stop to land consumption as the main goal of urban planning policies interpret urban regeneration as the key tool to achieve it. Hence, this policy is oriented to operating both in the built environment and open spaces. At the base, there is the idea that the quality of open spaces is directly proportional to the livability of both public and private spaces, but above all, to urban safety toward climate, ambient, and—as this recent experience has taught—health crises.

In regional and local experiences, even if not expressly stated in the rules, the regeneration has often been intended as an opportunity to intervene in “housing discomfort” as a form of “social discomfort”: while pursuing regeneration goals, it is possible to redevelop the public and private residential heritage, powering the supply of houses for subjects in conditions of emergency or also housing vulnerability, improving living contexts (Governa and Saccomani 2009; Talluri 2022). At the local level, the environmental issue has thus been associated with the never resolved ‘housing issue’. Implicitly, regeneration has become a ‘housing’ policy without actually being one<sup>3</sup>

<sup>1</sup> On the international scene, the key reference for the theme of urban regeneration is represented by Objective 11 of the 2030 Agenda of ONU, concerning the goal of sustainable, more durable, and more efficient cities and urban communities. A central European initiative on the themes of urban regeneration is the Urban Agenda for the EU (Pact of Amsterdam, 30th May 2016).

<sup>2</sup> As of today, there is not a national law that codifies the concept of regeneration and its application, to systematize and clarify the various regional actions (Annese 2018; Iacovone and Gianì 2022).

<sup>3</sup> Probably, the reason can also be found in the reflection that considers land consumption, the progressive anthropization of open space, and the transformation for exclusively urban uses as a source of urban degradation that impacts the right to the city and exacerbates housing discomfort. Of the five domains in which housing discomfort has been expressed (physical, legal, economic, social, and environmental), it is evident that the issue of land consumption and urban regeneration specifically affects the latter (Palvarini).

WG: Southern European Housing

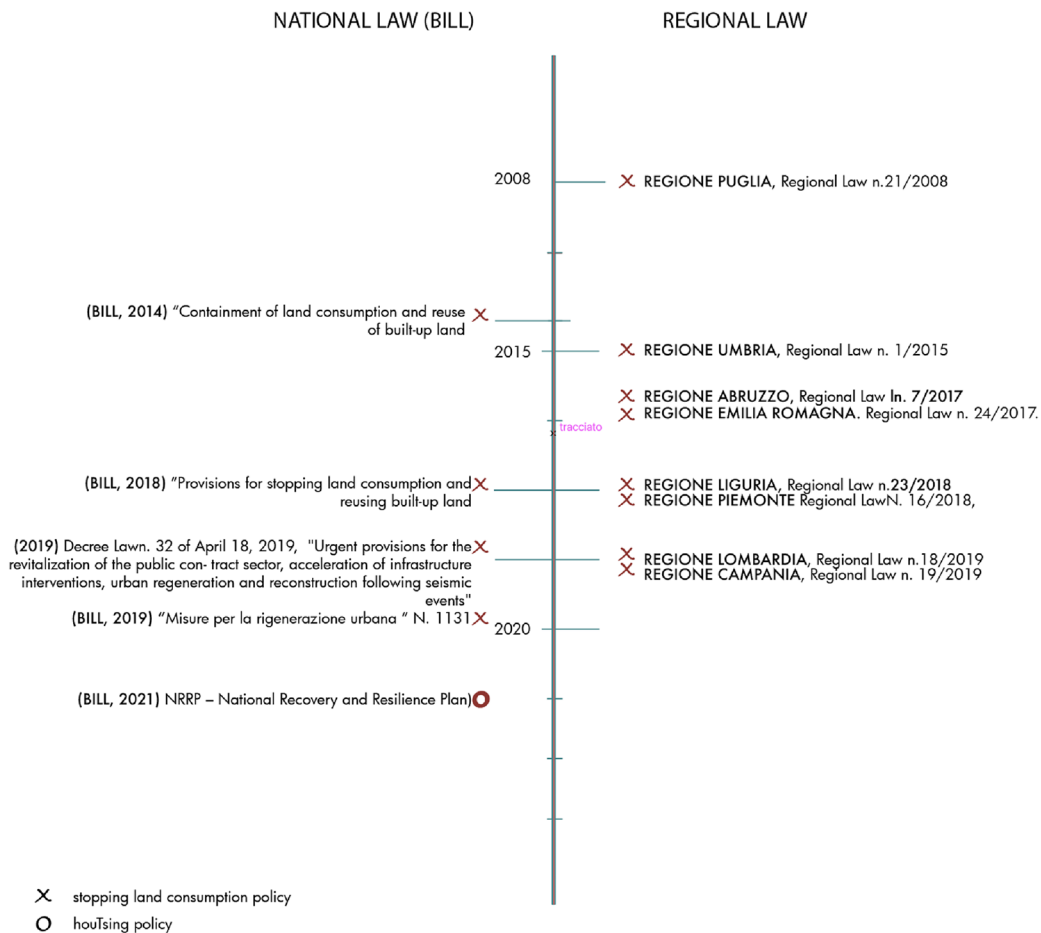


Fig. 1 Comparison of national and regional laws (elaboration by author)

but having the potential to be one (Bricocoli et al. 2021).<sup>4</sup>

However, the current formulation of urban regeneration could not be effective on the issue of the housing crisis that concerns Italy; instead, it has been very useful for the improvement of the built environment of social houses (Annese 2021). The emergency has been the same, or rather it has been worsened by the recent crisis.<sup>5</sup>

<sup>4</sup> If it were oriented to the redevelopment of the abandoned built environment, regeneration could indeed become an effective policy, coupled with explicit policies for social housing, which need to be defined as well.

<sup>5</sup> With respect to the 800,000 houses made available by the various institutions that deal with this problem, there is a pent-up demand of 650 thousand of families who are still waiting (Federcasa 2020). In addition to the large grey zone of the population within the wide category of housing discomfort, which is progressively turning into housing risk. (Nomisma 2022).

In particular, for the regions of Southern Italy, the European Union funds disbursed in the last 20 years have provided the opportunity to trigger transformations and innovations that would have been otherwise impossible with ordinary public expenditure. The region of Puglia, for example, has demonstrated an extraordinary capacity for planning and spending, standing out even among other regional administrations. Above all, it has been able to implement mechanisms to effectively implement a remarkable season of public policy renewal, many of which are oriented towards urban regeneration.

Since 2006, urban contexts have been affected by complex multisectoral instruments (PIRP) and, later, with Regional Law No. 21 of 29 July 2008 "Norme per la rigenerazione urbana" by significant processes of urban and territorial regeneration. These processes were carried out using European resources in 2011 and 2017, respectively

(Por Fesr 2007–2013, Por Fesr-Fse 2014–2020) (Annese 2021).

This contribution looks at the experience carried out by the city of Foggia in these two seasons of urban policies. Starting from the analysis and comparison of the regeneration tools, the work attempts a balance in order to problematise the criteria for the elaboration of transformation proposals to face the municipal housing crisis, outlining the contradictions and unresolved issues.

The reflection is developed in the following three parts (paragraphs 2, 3, and 4). The first describes the condition of “housing discomfort” in the city of Foggia, examining demographic and economic data that have contributed to exacerbating the phenomenon, as well as the conditions of the territorial context. On one hand, the city faces an issue of housing affordability, while on the other hand, it is highlighted how residential neighborhoods affected by public and urban housing policies have produced inadequate contexts to address the issue they were supposed to tackle. In the second part (paragraph 3), an intense season of urban regeneration policies is highlighted, in which the municipal administration participated with various programs (never implemented), always for the same neighborhoods (often proposing the same solutions). This aims to expose an approach that focuses only on the redevelopment of space and does not consider economic and social aspects. In the third part (paragraph 4), an attempt is made to outline a different approach to addressing the problem that takes into account the multidimensionality of the issue and the need for projects as well as management models. In the conclusions, an effort is made to outline the necessary contents for an effective regeneration policy capable of addressing housing problems.

### The case of Foggia

Foggia, the capital and nerve center of the Capitanata region, located in the northern part of the Puglia region, is considered a “high-tension housing municipality”.<sup>6</sup> This initial understanding introduces the housing issue of the case study, which is fundamental for grasping the regeneration strategies implemented in this context to address the problem.

Demographic trends highlight that from 2001 to 2022 Foggia has experienced a reduction in population<sup>7</sup> and an increasing fragmentation of households.<sup>8</sup> With the

increase in the number of families, there has inevitably been a greater demand for housing, while the decrease in household size<sup>9</sup> has reduced affordability (Fig. 2), which refers to the ability to afford housing expenses. These housing expenses significantly impact the average monthly expenditure of families in Puglia, especially single-person households (Fig. 2).

In addition to economic challenges, there are also issues related to the “physical domain”,<sup>10</sup> specifically housing and living comfort. The latter is particularly called into question when referring to the high overcrowding index<sup>11</sup> in the territory of the Municipality of Foggia, along with the presence of improper housing<sup>12</sup> and informality. When these factors are combined with the incredible increase in recent years in evictions, rental arrears, and illegal occupation,<sup>13</sup> they paint a particularly critical picture of the city (Fig. 2). It is evident that the exclusive reliance on public management of the housing emergency is insufficient to resolve housing-related issues.

The analysis of the “territorial domain” allows us to understand the relationship between the public residential building heritage (ERP) and the amenities that should enrich residential contexts, between urban policies and the dynamics that influence their implementation, and sometimes determine their failures. In fact, mapping the building assets owned by the Regional Agency for Housing and Living (ARCA) Capitanata<sup>14</sup> highlights their concentration mainly in two urban areas: the Candelaro, Biccari, and Borgo Croci neighborhoods in the northwest, and the CEP neighborhood in the southeast of the city (Fig. 3).

These peripheral areas are characterized by a lack of services and the presence of numerous open and public spaces lacking urban quality. Additionally, they face

<sup>6</sup> According to Delibera CIPE n.87 of 13 Novembre 2003.

<sup>7</sup> The resident population in the Municipality of Foggia was recorded as 155,203 inhabitants in 2001, while in 2022, it decreased to 146,379 inhabitants (Istat).

<sup>8</sup> The number of households in the City of Foggia in 2011 is 55,223, while in 2019 they increase to 61,356 (Istat).

<sup>9</sup> The average number of members per family in the Municipality of Foggia was 2.46 in 2018, and it decreased to 2.32 in 2021 (Istat).

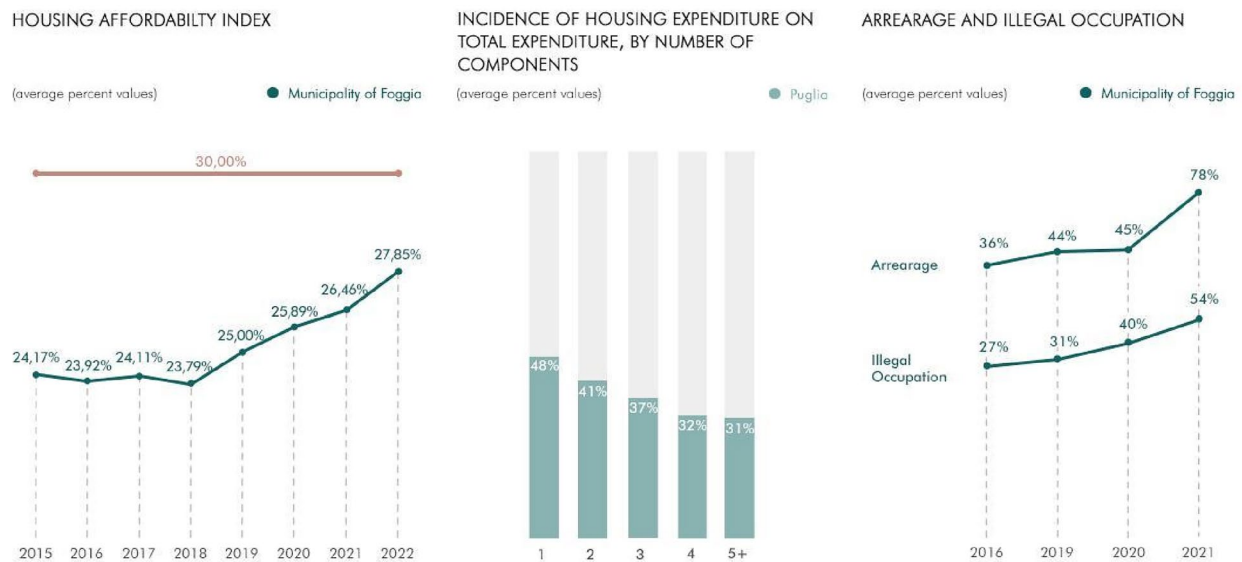
<sup>10</sup> Pietro Palvarini studies housing discomfort through the “domains of poverty”: social, physical, legal, economic, and territorial domains (Palvarini 2006; Nomisma 2020).

<sup>11</sup> In 2011, the overcrowding index in the Municipality of Foggia was 1.6%, compared to 0.9% in the Province of Foggia and 0.55% in the region of Puglia (Urban Index).

<sup>12</sup> The data for the Province of Foggia indicates an incidence of families living in other types of accommodation at 0.28% (Istat).

<sup>13</sup> The values for rental arrears and illegal occupation refer to the database provided by the ARCA Capitanata (formerly IACP) within the scope of the thesis “Rigenerare l’abitare urbano”.

<sup>14</sup> The Agenzia Regionale per la Casa e per l’Abitare (ARCA) is a non-economic regional public body, with technical-administrative functions relating to public and social housing (LR n 22/2014). The city of Foggia is the seat of ARCA Capitanata, which realizes and manages most of the heritage of Public Residential Housing (ERP) assets of the Province of Foggia and some municipalities of the Province of Barletta-Andria-Trani. In this research, we focus only on the ERP assets of ARCA Capitanata, not considering the ERP assets of the Municipality of Foggia.



**Fig. 2** Housing Affordability Index, municipality of Foggia; incidence of housing expenditure on total expenditure, by number of components, Puglia; arrears and illegal occupation, municipality of Foggia. Source: ISTAT, ARCA Capitanata Archive; Graphic data processing taken from the thesis in Architecture “Rigenerare l’abitare urbano”, Politecnico di Bari, academic year 2021/22

extreme and serious housing emergencies, such as improper housing, shantytowns, squatting, container neighborhoods, excessive building densities, overcrowded and precarious housing conditions. All these elements contribute to the social exclusion of these two urban areas and their weak integration with the rest of the city, aggravated by a lack of safety in these areas. Recent news reports have highlighted serious criminal incidents frequently occurring in these areas, blurring the line between precarious living conditions and criminal activities.

In particular, the northwestern peripheral area of the city (Fig. 4) is characterized by the presence of various shantytowns near Via Lucera and Borgo Croci, excessive building densities attached to the public housing stock, buildings at risk of collapse, privately-owned housing, and public buildings (an ex-school and the former Distretto Militare) occupied illegally by several families, along with emergency housing created by enclosing porticos belonging to other buildings. The occurrence of criminal incidents reported in the media in these areas (fires, scandals, murders, escapes, and other significant events) is a testimony to the deep housing discomfort that spatially manifests a more severe social distress, marking the resignation of the residents.

The southeastern peripheral area (Fig. 4), adjacent to a larger informal settlement of shantytowns within the city on Via De Petra, features the “container” neighborhood of “Campo degli Ulivi” with 34 registered family units as

of 2018. It also exhibits several illegally occupied properties, excessive building densities, and some public housing units in unsanitary conditions. In addition, this area has witnessed incidents of street racing, numerous thefts, and a shooting in the past 2 years.

The need and urgency to intervene in the city of Foggia are evident, with actions on the building and urban component, but also by addressing the social network with policies that reduce housing distress and improve the quality of life and living conditions of its citizens.

### Local policies for urban regeneration

#### Urban regeneration policy in the regional context

In a general framework where roles and responsibilities in urban regeneration overlap at the national level and in the absence of clear policies on the subject, the Puglia Region has already established a regional law on Urban Regeneration since 2008.

Building on the experience gained through Integrated Intervention Programs in the late 1990s, the regional policy in Puglia has been focused on rethinking the existing city, particularly its most degraded parts, since 2005. The “Programma Integrato di Riquilificazione delle Periferie (PIRP)” was introduced in 2006 through a public financing call, and it was among the first instrument of the regional urban planning system aimed at supporting the urban regeneration of public residential peripheries.



**Fig. 3** ARCA Capitanata's asset and the framing of peripheral areas with a higher concentration, municipality of Foggia. Source: Graphical representation taken from the thesis in Architecture "Rigenerare l'abitare urbano", Politecnico di Bari, academic year 2021/22

The significant response obtained in 2006 from this initiative encouraged the transition from extraordinary policies to ordinary practices. The enactment of a specific regional law on the subject (Regional Law 21/2008 "Norme per la rigenerazione urbana") in 2008 established the systematic approach initiated with the PIRP, with a declared commitment to think in terms of regeneration rather than redevelopment.

The use of the term "regeneration", explicitly adopted in the legislation, highlighted the desired interconnection between the policies for the redevelopment of urban contexts and ecological, economic, and social aspects. It clearly shifted the focus from the physical dimension to the socio-economic dimension and provided a transversal perspective on the subject across multiple sectors, albeit within exclusive planning instruments.

Regional Law 21/08 has been the essential reference for the programming of European funds (PO FESR 2007–2013, *Por Fesr-Fse* 2014–2020) and a source of inspiration for the strategies that local administrations have developed since 2008 for existing contexts, including construction methodologies.

In line with the European vision, the requirements set at the regional level for the effectiveness of regeneration processes have become integrated action, involving a mix of actors and population, resources (public and private),

functional diversity, and ecological attention in the implementation of interventions. The involvement and participation of various social actors are also crucial, not only as a prerequisite for applying for funding but also as a guarantee of the projects' alignment with the needs and aspirations of the communities involved (Micelli 2008; Bisciglia et al. 2011).

By promoting interventions in public residential peripheries from the beginning, with the financing of the PIRP and prior to Law 21/2008, regeneration has implicitly been associated with a "housing" policy. This does not solely refer to the material production of new housing units but rather to the improvement of existing housing contexts, aiming for a multidimensional enhancement of living conditions through the regeneration of residential "peripheries", recognized as such due to the different nature of the problems they face.

#### **An overview of interventions**

To address the housing challenges that characterize the city of Foggia, various competent entities in housing policies have attempted different solutions through the adoption of urban planning and building recovery tools, aiming to incentivize the improvement of housing conditions and urban quality of life. The experience in Foggia is significant because a review of interventions (Table 1)



**Fig. 4** Areas of precarious housing and criminality: peripheral areas in the northwest and southeast, municipality of Foggia. Source: Graphical elaborations taken from the thesis in Architecture titled “Rigenerare l’abitare urbano”, Politecnico di Bari, academic year 2021/22

reveals that numerous urban policies focused on urban regeneration strategies have been implemented in the past 20 years, primarily driven by regional legislation. However, the majority of these interventions have never been completed.

By observing the year of introduction of regeneration interventions in the Municipality of Foggia (cf. Table 1), it is possible to notice how, in terms of urban redevelopment, the Foggia Administration often responded with significant delays to the stimuli for action coming from various regional and national funding programs (Fig. 5), showing greater proactivity in terms of urban regeneration.

The study delved into what happened to the municipal strategies since 2008, the year of approval of Regional Law 21/2008. The law, in an innovative way, shifted the focus from recovery to multi-level action on peripheral housing contexts, having a significant impact on the transformations of Puglia’s administrations (Annese 2018, 2021).

Eight programs<sup>15</sup> were under consideration: the “Programma Integrato di Riqualificazione delle Periferie, Ambito A” (PIRP A), the “Programma Integrato di Riqualificazione delle Periferie, Ambito B” (PIRP B), the “Programma di Riqualificazione Urbana per Alloggi a Canone Sostenibile” (PRUACS), the “Programmi Integrati di Rigenerazione Urbana” (PIRU), the “Accordo di Programma Cittadella Ecologica Santa Maria” the “Strategia Integrata di Sviluppo Urbano Sostenibile” (SISUS), the “Programma integrato di edilizia residenziale sociale” (PIERS), and the “Programma Innovativo Nazionale per la Qualità dell’Abitare” (PINQuA). They represent the Administration’s response to various application opportunities created by the Puglia Region and others to stimulate Urban Regeneration interventions. In particular, the mentioned programs are all located in the northern part of the city, with a greater concentration in the northwest periphery (Fig. 6).

The northwest outskirts of Foggia are home to the neighborhoods of Biccari, Borgo Croci, and Candelaro, areas rich in public housing heritage by ARCA Capitanata but also plagued by serious issues, notably the housing emergency. Numerous dwellings in these areas suffer from overcrowding, and there is also a prevalence of unauthorized and improper constructions, such as shanties, which contribute to the degradation of the buildings and urban environment, inevitably leading to episodes of widespread crime. Consequently, this part of the city has been the subject of several regeneration proposals over time, highlighting the significant criticality of the area.

This study seeks to understand the strategies employed to address the aforementioned issues and, more importantly, assess how these strategies have evolved over time in response to the changing social and physical conditions of the city, particularly in the peripheral neighborhoods.

The first program examined is the “Programma Integrato di Riqualificazione delle Periferie, Ambito A” (PIRP A) of 2007, which focuses on the neighborhoods of Borgo Croci and Biccari. The proposed actions aim to make these peripheral and problematic areas of the city self-sufficient, as they have historically been subordinate to the city center due to their primarily residential nature. The PIRP involves the demolition of degraded and unauthorized buildings and the construction of 397 subsidized and regulated public housing units, primarily targeting the elderly, young couples, and people with disabilities. In addition, the plan includes interventions to increase the quantity of public amenities, such as public green

<sup>15</sup> The choice of programs to delve into is due to the availability of information and the desire to investigate the concept of dwelling within each Urban Regeneration project.

**Table 1** Reconnaissance of regeneration interventions, municipality of Foggia. Source: Elaboration taken from the thesis in Architecture titled 'Regenerating Urban Living,' Politecnico di Bari, academic year 2021/22

Programs in progress	Year	Proposing entity	Type	Actions	Housing units	Status of implementation
PIC URBAN I	1994–1999	Municipality	Urban interv.	Recovery	ND	Incomplete as of 2010
PRU—Programma di recupero urbano (L 493/1993)	2002	ARCA Capitanata and Municipality	Urban interv.	Recovery	ND	Incomplete as of 2018
CdQ I—Contratto di quartiere I (DM LLPP 22/10/1997)	2004	ND	Urban interv.	ND	ND	Intervention not implemented
CdQ II—Contratto di quartiere II (L 21/2001, DM 27/12/2001 and DM 23704/2003)	2006	ND	Urban interv.	ND	ND	Intervention not implemented
PIRP A—Programma Integrato di Riqualificazione delle Periferie (art.13 LR 20/2005)	2007	ARCA Capitanata	Urban interv.	New construction	397 ERP <sup>a</sup> and ERS <sup>b</sup> housing units	Interrupted intervention
PIRP B—Programma Integrato di Riqualificazione delle Periferie (art.13 LR 20/2005)	2007	Municipality	Urban interv.	New construction	540 ERP and ERS housing units	Intervention not implemented
Accordi di programma—EX PRUSST (DM 1169/1998)	1998–2009	ND	Urban interv.	New construction and recovery	ND	Intervention not implemented
Zone F—Variant proposals to the General Urban Plan (PRG) (DCC 9/2008)	2008	Municipality	Urban interv.	New construction	ERS housing units	Intervention not implemented
Housing Sociale (DGC 129/2009)	2009	Municipality	Urban interv.	New construction	ERS housing units	Intervention not implemented
PNEA—Piano Nazionale di Edilizia Abitativa (DPCM 06/07/2009)	2009	ARCA Capitanata	Building interv.	New construction	45 ERS housing units	Intervention completed
PRUACS—Programma di Riqualificazione Urbana per Alloggi a Canone Sostenibile (DM 2295/2008)	2009	Municipality	Urban interv.	New construction and recovery	28 ERP housing units	Unfunded intervention
PIRU—Programmi Integrati di Rigenerazione Urbana (LR 21/2008)	2011	Municipality	Urban interv.	Urban recovery	–	Intervention not implemented
SISUS—Strategia Integrata di Sviluppo Urbano Sostenibile (DGR 650/2017)	2017	Municipality	Urban interv.	New construction and recovery	28 ERP and ERS housing units	Intervention not implemented
Programma di recupero e razionalizzazione degli immobili e degli alloggi di ERP (L 80/2014)	2019	Municipality	Building interv.	Recovery	124 ERP housing units	Ongoing intervention
PASS—Programma dell'Abitare Sostenibile e Solidale della Regione Puglia (DGR 2419/2019)	2020	ARCA Capitanata	Building interv.	New construction	10 ERP housing units	Funded intervention
Programma straordinario di intervento per la riqualificazione urbana e la sicurezza delle periferie (L 208/2015)	2021	ARCA Capitanata	Building interv.	New construction and recovery	24 ERP housing units	Funded intervention



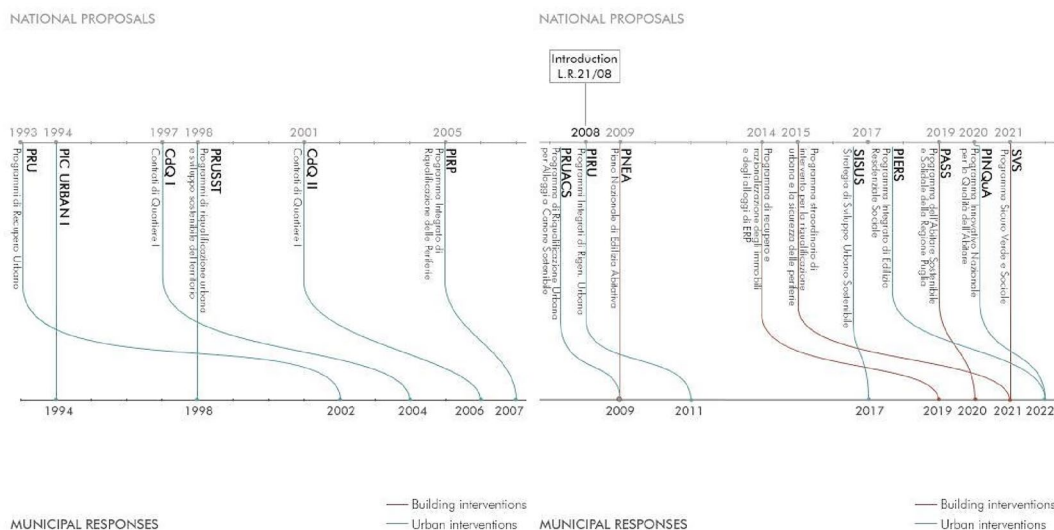
**Table 1** (continued)

Programs in progress	Year	Proposing entity	Type	Actions	Housing units	Status of implementation
Programma Sicuro, Verde e Sociale (DL 59/2021)	2021	Municipality	Building interv.	Recovery	72 ERP housing units	Intervention not implemented
PIERS—Programma integrato di edilizia residenziale sociale (Delibere CIPE 127/2017 and 555/2019)	2022	ARCA Capitanata	Urban interv.	New construction	80 ERP and ERS housing units	Funded intervention
PINQuA—Programma Innovativo Nazionale per la Qualità dell’Abitare (DI 395/2020)	2022	Municipality	Urban interv.	New construction and recovery	68 ERP and ERS housing units	Funded intervention

The redevelopment tools before L.R. 21/08 are shown in gray and those closely related to Urban Regeneration policies are shown in blue

<sup>a</sup> Public Residential Housing (ERP)

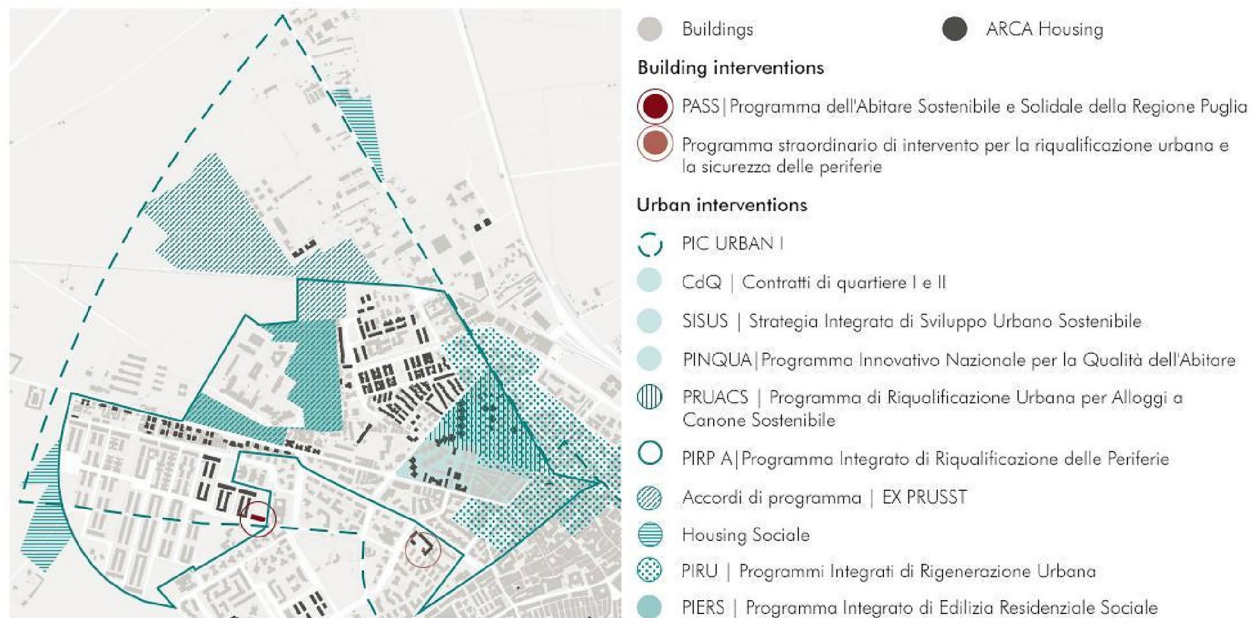
<sup>b</sup> Social Residential Housing (ERS)



**Fig. 5** Chronology of regeneration programs, municipality of Foggia. Source: Figure taken from the thesis in Architecture “Rigenerare l’abitare urbano”, Politecnico di Bari, academic year 2021/22

spaces and parking facilities, as well as residential services, which are currently lacking in these areas. Other actions focus on environmental sustainability and natural resource conservation, including tree planting, green barriers, land permeability, low-noise asphalt, and reduction of residential traffic. However, much of these planned interventions do not result from a relevant response to regional funding opportunities for PIRP but rather a recovery of previous plans and programs that were never implemented, such as the “Piano di Zona” and “Contratti di Quartiere” I (2004) and II (2006).

Since the PIRP A only realized the planned standard areas (parking lots and green spaces) in the Biccari neighborhood and the construction of a green area and a section of bike path in Borgo Croci, the Municipality of Foggia seized the opportunity in 2009 to access funding for the “Programma di Riquilificazione Urbana per Alloggi a Canone Sostenibile” (PRUACS) by identifying the Borgo Croci neighborhood, an area dense with critical issues, as the sole target within the PIRP A’s boundaries. The proposed interventions in PRUACS once again involve the construction of 28 subsidized public housing



**Fig. 6** Overlay of regeneration programs, northwestern periphery area, municipality of Foggia. Source: Graphic produced from the thesis in Architecture titled “Rigenerare l’abitare urbano”, Politecnico di Bari, academic year 2021/22

units and the development of infrastructure for mobility and green areas (bike paths, residential streets, pedestrian zones, low-noise asphalt, improvements to local public transportation, safe pedestrian routes, equipped green spaces, permeable parking areas, and playgrounds), along with neighborhood services such as a library and a senior center located on the lower level of the new housing units. Although approved, PRUACS did not receive regional funding and was never implemented, representing another failed attempt.

Over the years, additional programs focused on the Borgo Croci neighborhood have emerged. In 2017, the “Strategia Integrata di Sviluppo Urbano Sostenibile” (SISUS) was designed to address housing-related issues within the framework of the *Programma Operativo Regionale FSE-FESR 2014–2020*, particularly under “Asse XII—Azione 12.1: Rigenerazione urbana sostenibile” and “Asse IX—Azione 9.13: Interventi per la riduzione del disagio abitativo”. The same citizens have contributed to the selection of the urban area in which to apply this strategy, identifying it as the most critical place from a physical, social, and territorial point of view. To address these issues, SISUS presents a project entitled “Il Borgo reale il Borgo possibile”, which aims to transform the current neighborhood by faithfully proposing almost the same interventions as the previous PIRP A. This includes demolitions and constructions, interventions on open spaces and facilities, as well as actions for environmental sustainability and the protection of natural resources,

with only a few exceptions related to efficiency works and the renovation of a former Art Institute to create experimental housing.

The same project planned by SISUS, which has never been completed, was submitted in 2022 in response to the call for proposals of “Programma Innovativo Nazionale per la Qualità dell’Abitare” (PINQuA), an Investment Plan promoted within the framework of the National Recovery and Resilience Plan (PNRR) by the Ministry of Infrastructure and Sustainable Mobility (MIMS 2022). It falls under Mission 5 “Inclusion and cohesion”, Component 2 “Social infrastructures, families, communities, and the third sector”, Measure 2 “Urban regeneration and social housing”, Investment 2.3 “Innovative program for housing quality”. Although it represents the most recent planning in the field of regeneration, it essentially reiterates the already planned projects in the same intervention area, incorporating all the previous programs and attempting to implement previous actions without bringing true innovation in terms of housing quality. The fact is that the prevailing degradation in the neighborhood has worsened over the years to the point where it has become an obstacle to the implementation of the previously described regeneration programs, preventing any real improvement in the social, physical, and urban conditions of this part of the city. PINQuA, therefore, complements the provisions of PIRP A and SISUS by increasing the supply of social housing units (56) and “parking housing” units (12), eliminating the elements of decay present

in the neighborhood. This will lead to the functional requalification and recovery of public areas, the creation of pedestrian and cycling paths, and the implementation of green barriers, while also resuming the previous interventions for environmental sustainability.

In the same northwestern periphery of the city, specifically in a residual space located just east of Santa Maria Bambina Hospital (now known as Don Uva Hospital), we find the “Accordo di Programma” and the PIERS. Both instruments are not explicitly related to regeneration policies but represent further attempts to intervene in the context to address the housing issue. The first intervention concerns an “Accordo di Programma” between the Municipality of Foggia and the private company “Pasquale Ciuffreda e Figli s.r.l.,” signed in 2009 for the construction of the multi-functional complex “Cittadella Ecologica Santa Maria”, as a variation to the current General Urban Plan (PRG). This variation involves the transformation of Zone F into areas of social housing aimed at addressing the housing emergency. Therefore, the project intends to align with the objectives of the previous PIRP A, along with the elimination of urban, building, and social degradation elements in the area, such as dilapidated structures, poorly maintained buildings, and waste (Fig. 7). Thus, the project pursues these goals by including both residential interventions and the enhancement and improvement of public areas to be equipped. The program aims to create 300 housing units, including 10 units for the Municipality of Foggia to address the housing emergency, and another portion to be allocated to the hospital staff and their families. Other planned actions include the construction of a play center and a sports arena, the restoration of the “Crocì Nord” municipal field, the improvement of area accessibility, the creation of public open spaces, the demolition of deteriorated existing volumes, and the decontamination of the area. The “Accordo di Programma” not only focuses on urban and social objectives but also promotes sustainability, such as the implementation of a centralized cogeneration system to provide hot water, efficient heating systems, trigeneration plants in the sports arena, ecological islands, and phytodepuration systems for the recovery of rainwater and/or graywater to be used with dual plants in toilets and for irrigation purposes.

Due to the failure of the company and the subsequent suspension of the “Accordo di Programma”, the same area was purchased at auction by ARCA Capitanata in 2022, locating in it a project in response to Delibera CIPE 127/2017 for the implementation of the “Programma integrato di edilizia residenziale sociale” (PIERS), which partially takes up the redevelopment project already planned for the “Cittadella Ecologica Santa Maria”. However, unlike the “Accordo di Programma”, the project

proposed for the PIERS is limited to the lower part of the area, primarily envisioning the construction of 128 residences for different user groups, such as young couples, elderly individuals, immigrants, students, and people with disabilities. Additionally, commercial ground floors and external services connected to new community spaces in the neighborhood are included. Furthermore, there are some sustainability-oriented design choices, including the use of traditional energy sources alongside renewable ones, the construction of nearly zero-energy buildings (nZEB), and the installation of thermal and photovoltaic solar panels on the rooftops of the buildings. This intervention also aims to address the serious housing crisis in the city of Foggia, but, like previous attempts, it has not yet been effectively realized.

Shifting our attention eastward and moving away from the northwest periphery, it is important to mention two other urban regeneration programs that have played a role in the planning history of Foggia in recent years but have never been implemented: PIRU and PIRP B.

Firstly, the “Programmi Integrati di Rigenerazione Urbana” (PIRU) or “Piano Integrato di sviluppo urbano, Rigenerare lungo la memoria” is located in the central-north part of the city, serving as a “link” between the two PIRP plans in Foggia. Introduced in 2011, it proposes various projects over a wide area with suggestive and cultural purposes (creation of a linear park that retraces the history of the Foggia territory) and innovative content (repurposing areas for community use and improving mobility). In this case, there are no plans for the recovery or construction of new housing. The program primarily focuses on the historical, social, and territorial aspects, moving away from the idea of regeneration linked to housing.

Lastly, let’s analyze the last program in question: the “Programma Integrato di Riqualificazione delle Periferie, Ambito B” (PIRP B) from 2007. Like the PIRP “Ambito A”, it considers a very large area known as the “Diaz-Martucci-Viale Fortore Area”, located in the northeast part of the city. It revolves around a strong element, namely the railway junction, and thanks to its connection with the A14 motorway interchange, it represents one of the main access points to the city. The urban area faces several issues, starting with the exclusively residential mono-functional character of the involved neighborhoods, which leads to a lack of services. Furthermore, there is significant building deterioration that affects the architectural structures. All of this is further compounded by the presence of the railway tracks, which effectively prevent the connection between these areas and the city center, highlighting the urban and social marginalization that characterizes these places. The program, therefore, in line with actions already planned by the Municipal



**Fig. 7** Foggia, Via Lucera. Remains of collapsing buildings and waste present within the urban area of the Accordo di Programma. Source: Photo of the Authors

Administration, aims to regenerate the degraded areas of the Diaz, Martucci, and Scillitani neighborhoods by demolishing deteriorated structures and constructing 484 subsidized housing units, 56 “parking apartments”, public green areas, and neighborhood services. Additionally, the renovation of the “Casa del Fascio” in the Diaz neighborhood is planned to create a Social Center for the elderly, given the high presence of this demographic within the analyzed context. Furthermore, there is a transformation planned for the “Villaggio degli Artigiani” into a “Business Park”, an advanced tertiary settlement that aims to facilitate the connection between peripheral areas and the city center.

In conclusion, by simultaneously considering all the programs in question, it was possible to identify some common issues. These strategies have often addressed the housing crisis by proposing the demolition of illegal constructions and the construction of new public housing and services, particularly in the underserved peripheral neighborhoods. Although these actions are necessary and can improve the physical context of these spaces, they are not sufficient to address the problem because they represent solely spatial solutions that do not provide a real contribution to the concept of “living”. In this context, the housing issue is reduced to the mere design of residences and services as if they were the only elements capable of improving the fate of a city severely affected by the housing crisis.

Secondly, focusing on the northwest periphery of the city, specifically the neighborhoods of Biccari, Borgo Croci, and Candelaro, it becomes apparent that the already inadequate projects have been cyclically proposed without the necessary updates to address the social and territorial transformations that have occurred over time. This highlights a lack of attention to the

growing issues and evolving local needs, both from a social and economic perspective. The economic component, in fact, plays a significant role in Foggia, especially when considering the limited ability of families to afford housing expenses and thus qualify for housing rights (cf. paragraph 2). These elements are not quantified in the preliminary analysis process for the regeneration project. This lack also implies a problem in defining the target audience, as it does not consider the ongoing social and economic transformations. Although more recent programs have attempted to address these issues on paper, they have not been effectively implemented, clearly indicating the need to delve into and update economic and social analyses, introducing new considerations on management aspects in urban regeneration processes.

### **A new model of regeneration for living**

The entire analysis conducted on the regeneration programs allows for some fundamental considerations to understand their limitations and demonstrate the need to introduce a regeneration model that addresses the theme of living in an innovative way.

Regarding the implementation status of the various regeneration programs, it is evident that despite the significant number of proposed initiatives, to date, the only completed intervention is the construction of 45 new public housing units under the “Piano Nazionale di Edilizia Abitativa” (PNEA). A large number of interventions (7) have been approved for funding, thus awaiting the start of construction, or are declared to be in progress. However, the majority of interventions (11) have either never been realized or have been discontinued due to proposal ineligibility or depletion of the allocated funds (cf. Table 1).

These data, coupled with the frequent delayed response from the municipal administration to various regional and national programs (cf. Fig. 5), clearly highlight the incapacity of the public entity alone to adequately respond to significant forms of financing. Furthermore, by leveraging supra-local planning, several intervention proposals have overlapped with slight temporal gaps in the same intervention area, proposing the same design solution (cf. Fig. 6). This underscores a certain inertia in updating the initially identified solution in line with the evolving problem being addressed, which corresponds to the indifference towards the theme addressed by each specific funding line. The same instrument (plan or program of interventions) at the local scale has changed names multiple times without ever improving, essentially knowingly consciously predisposing itself to failure.

Essentially, it reveals a singular approach to the issue of housing discomfort, centered around the creation of new publicly-owned real estate within a context already marked by discomfort, to be addressed through a set of public works (roads, parking lots, green areas). For effective regeneration, the introduction of a new intervention model is considered necessary, one that goes beyond the purely physical and spatial dimension to which the case study's action was directed, favoring actions that also involve the qualitative and social aspects of living.

To facilitate access to housing, it is crucial to intervene primarily in the market, focusing on the diversification of housing supply. In the case of the city of Foggia, it is necessary for new policies to impact the economic and social dynamics of the context, addressing the problems of high rents and the lack of adequate infrastructure and services in residential areas.

This means not only envisioning the realization of entirely public housing but also initiating a concrete production of social housing accessible to segments of the population that do not fall within the public assistance system but are still burdened by market speculation. The introduction of affordable housing units with rent levels adjusted according to the specific income conditions of applicants could represent a concrete solution to promote housing affordability and reduce inequalities. In order to promote housing accessibility, programs should not be limited to the location and provision of new housing; there is also a need for an economic and financial Plan based on the diversification of housing supply, with assessments and proposals capable of influencing the affordability index to ensure access to housing for a larger population.

As a result, no program can be initiated without an analysis of the economic and social context, the

identification of market challenges, and the financial condition of households. The target audience should be known from the outset, and the strategy should be built around it.

It is also necessary to introduce functional diversification within the emerging Social Housing stock, so that both public and social housing, sharing services, neighborhood services, semi-private spaces, and others can be offered simultaneously. The emerging functional program pays particular attention to the ground floors, intended for both residential functions (e.g., locating housing for the most vulnerable categories) and neighborhood services (such as commercial and recreational activities, social and healthcare assistance centers) and public spaces (equipped play areas for children, sports areas, places for leisure, and resting areas for individuals of different ages).

Such functional mix, useful for overcoming the mono-functional, exclusively residential nature of peripheral neighborhoods, should promote the managerial mix of housing. This, for example, contributes to the elimination of social exclusion phenomena that often characterize public housing districts. Shared services should also be arranged to facilitate exchanges and relationships between individuals and groups, thereby facilitating the creation of a supportive community where, for instance, each family unit, in addition to private residential space, can experience co-housing experiences by sharing useful and functional spaces, as well as those necessary for creating social opportunities.

In this model, the direction from the public entity is essential, but not exclusive management. The Italian tradition of residential asset management is currently in a deep crisis due to structural and economic problems faced by entities that are no longer able to produce residential assets. However, they are still in a position to guide choices, define programs, and ensure fair access.

The definition of a new collaboration management model between the Public and Private sectors, including the form of the third sector, is crucial to address the complexity of the issues at stake and meet the housing demand.

## Conclusions

This contribution has examined the experience carried out by the city of Foggia over an extended period of implementing urban policies through the description of various initiatives taken to access and utilize national and regional financial resources and address the issues related to the status of being a "high housing tension" municipality.

The urban regeneration that aspired to be impactful on paper has only taken on the characteristics of a design proposal aimed at modifying spatial conditions without truly affecting the intangible aspects of the context (such as economic and societal aspects). All the wealth contained in the “regional recipe” for urban regeneration (Regional Law 21/2008) has been neglected, especially concerning the attention the regulation directs toward the social component.

The case study highlights a limited ability to interweave various crisis conditions with local needs and define effective complex strategies through the triggering of social mobilization and forms of cooperation, in favor of a mere list of spatial transformations that could (perhaps) improve the quality of architectural structures and spaces but not of “living”.

The work, by identifying the critical issues of the case study and outlining a possible updated model of urban regeneration, thus provides a reflective contribution that effectively addresses the housing issue.

It is evident that the analytical phase preceding the development of tools for transforming residential contexts is crucial, and strategies for regenerating living spaces aimed at resolving housing discomfort cannot disregard a constant update of data, interpretation of phenomena, and a strategic vision. These are operations for which Public Administrations often lack technical preparedness. Urban regeneration cannot avoid confronting the existing situation, starting from the data provided by the residential heritage. It is necessary to have updated cognitive frameworks without which it is difficult to apply effective forms of management truly close to the questions and needs of citizens.

The role that communities play in programs is crucial for reducing inequalities in access to housing: the theme of housing access must go hand in hand with that of sharing spaces and residence services. These two considerations have strong urbanistic implications for urban regeneration interventions and force us to consider the space project in symbiosis with the process through which the space will be transformed and then experienced. This means operating in a multi-scale and multi-level manner, well beyond the scale of individual building interventions.

In this sense, housing policies and urban regeneration policies must be integrated.

If urban regeneration, in particular, is aimed at improving the quality of living, it must operate in a multisectoral and multidimensional manner. Understanding “for whom” regeneration is done means acting in the direction of resolving housing discomfort.

Equally important is outlining effective tools for heritage management.

The proposed approach represents a pathway for urban regeneration to become a housing policy, provided that it is truly a cross-cutting policy that encompasses multiple dimensions (urban, economic, social) and adopts a holistic approach to build a future where housing is an element of inclusion and well-being for all.

The efforts made in the last twenty years confront the now unavoidable need to define more precisely and concretely the processes, starting with a repositioning of the role of the public sector, social actors, and communities of inhabitants, along with the assignment of specific responsibilities.

Regeneration strategies should not only correspond to a “physically” improved urban environment but initiate the construction of a context within which residents themselves have been able to build and define a better quality of life. This involves fostering a collaborative spirit, developing a path of care and ownership of places by sharing experiences of individual training and collective growth.

This approach requires rebalancing the principle of technical–economic feasibility of the spatial project compared to other aspects not yet adequately explored in the regeneration process, questioning plans constructed as a series of public works. It is evident that this necessitates more comprehensive regulations addressing all the issues that regeneration interventions entail.

#### Acknowledgements

The work is part of the project “Rigenerare l’abitare urbano” (2022–2024), ArCoD Department of the Polytechnic of Bari. PON Project 2014–2020 (Ministerial Decree 10 August 2021, no. 1062)—Green Issues. It represents the deepening of the thesis work “Rigenerare l’abitare urbano” written for the Course of Study in Architecture of the ArCoD Department of the Polytechnic of Bari (academic year 2022–23) and developed by: Anaclerio F.P., Ariola L., Gabrieli R., Mezzapesa I.L., Roberto N., Tafuni C., Villasmunta M.E. (Supervisor: M. Annese).

#### Author contributions

Although the contribution is the result of a collective reflection by the authors, the following attributions are made: §1, §3.1 and §5 are credited to MA; §2 to LA; §3.2 and 4 to ILM and NR. The general coordination has been referred to MA.

#### Funding

Not applicable.

#### Availability of data and materials

Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

#### Declarations

#### Competing interests

The authors declare that they have no competing interests.

Received: 22 October 2023 Accepted: 1 February 2024

Published online: 19 February 2024

## References

- Annese M (2018) Puglia: segnali e apprendimenti nel nuovo ciclo "Bilanci, questioni e prospettive dopo 10 anni di Rigenerazione Urbana in Puglia", WP, 1/2017. In: Balducci A, De Leonardi O, Fedeli V (eds) Terzo Rapporto sulle città. Mind the gap. Il distacco tra politiche e città - FUORI COLLANA Il Mulino (WP 1–92), Bologna, pp 53–54. ISBN: 978-88-15-27544-8
- Annese M (2021) Gli effetti della rigenerazione pre-pandemica nella risposta alla crisi. Il caso pugliese, in *Economia e Società Regionale*. Oltre il ponte XXXIX(3) 2021 – Rigenerazione urbana come infrastrutturazione socio-territoriale, pp 61–76. <https://doi.org/10.3280/ES2021-003005>
- Bellicini L (2015) Rigenerazione urbana sostenibile. <https://www.treccani.it>. IX Appendice, 2015
- Bisciglia S et al (2011) La stagione dei programmi integrati in Puglia: prime valutazioni sui processi partecipativi. Attidella XV Conferenza Siu–L'urbanistica che cambia. Rischi e valori, Pescara 10-1 maggio 2011, Planum. The Journal of Urbanism, 25(2), p.1–9
- Bricocoli M, Cellamare C, Cognetti F, Marchigiani E (2021) Edilizia residenziale pubblica: Leve per incrementare il patrimonio disponibile. In: Coppola A, Del Fabbro M, Lanzani A, Pessina G, Zanfi F (eds) Ricomporre i divari. Politiche e progetti territoriali contro le disuguaglianze e per la transizione ecologica. Il Mulino: Bologna, pp 175–185
- Calafati A (2009) Economie in cerca di città. La questione urbana in Italia, Donzelli
- FederCasa (2020) "Dimensione del disagio abitativo pre e post emergenza covid-19. Numeri e riflessioni per una politica di settore." Report, presented in Rome, on 7 luglio 2020. <http://cms.federCasa.it/download.aspx?id=9fe957dd-f413-476f-ba81-4c05cf30149e>
- Gardini G (2020) Alla ricerca della "città giusta". La rigenerazione come metodo di pianificazione urbana. In: *Federalismi* n.24/2020, federalismi.it. ISSN 1826-3534
- Governa F, Saccomani S (2009) Housing and urban regeneration experiences and critical remarks dealing with Turin. *Eur J Hous Policy* 9(4):391–410. <https://doi.org/10.1080/14616710903357193>
- Iacovone G, Giani L. (2022), Città, reti sociali e rigenerazione urbana: una prospettiva normativa in *Urban@it* (Ed), Settimo Rapporto sulle città. Chi possiede la città? Proprietà, poteri, politiche, Il Mulino Bologna, pp.253–266
- Lefebvre H (1976) Il diritto alla città, Marsilio. (Trad. Le droit à la ville, Anthropos, 1968)
- Micelli E (2008) La riqualificazione ora è anche sociale: la Puglia lancia i programmi di rigenerazione, *Edilizia e Territorio* 34/2008, p.6-8.
- Nomisma F (2020) Dimensione del disagio abitativo pre e post emergenza Covid-19. Numeri e riflessioni per una politica di settore, Bologna
- Nomisma (2022), "Sguardi Familiari", Report on Italian families conditions. <https://www.nomisma.it/sguardi-famigliari-il-contributo-nomisma-che-costruisce-uno-sguardo-piu-prossimo-alla-vita-quotidiana-delle-famiglie-italiane/>
- Palermo PC, Savoldi P (2002) Esperienze locali: contesti, programmi, azioni. Il programma Urban e l'innovazione delle politiche urbane. Vol. II, Franco Angeli/Diap, Milano
- Pasqui G, Valsecchi E (2010) Apprendere dall'esperienza: pratiche, riflessioni, suggerimenti. Il programma Urban e l'innovazione delle politiche urbane. Vol. III vol, Franco Angeli/Diap, Milano
- Roberts P, Sykes H (2000) Urban regeneration. SAGE Publication, Los Angeles
- Rossi U, Vanolo A (2013) Regenerating what? The politics and geographies of actually existing regeneration. In: Leary ME, McCarthy J (eds) *The Routledge companion to urban regeneration*. Routledge, London, pp 159–167
- Rosenthal SS, Strange WC (2003) Geography, industrial organization, and agglomeration. *Rev Econ Stat* 85(2):377–393. <https://doi.org/10.1162/003465303765299882>
- Storto G (2019) Il destino incerto dell'edilizia residenziale pubblica. In: *Territorio*: 88, 1, 2019, Franco Angeli Milano, pp 29–35
- Talia M, D'Onofrio R (2015) La rigenerazione urbana alla prova, Franco Angeli Milano
- Talluri L (2022) La sfida dell'abitare sociale in Italia. Aumentare il numero di alloggi rigenerando le città e rinnovando la gestione. In: Delera E, Ginelli E (eds) *Storie di quartieri pubblici. Progetti e sperimentazioni per valorizzare l'abitare*. Sesto San Giovanni, Mimesis

## Website sources

- Documento Programmatico Preliminare al Piano Urbanistico Generale, nota di aggiornamento marzo 2019, relazione generale. [https://www.comune.foggia.it/download/Servizi/PUG/A%20DOCUMENTO%20PROGRAMMATICO%20PRELIMINARE/A2%202019%20DPP%20ATTUALIZZATO/A2.1%20DPP%20FG\\_2019%20RELAZIONE.pdf](https://www.comune.foggia.it/download/Servizi/PUG/A%20DOCUMENTO%20PROGRAMMATICO%20PRELIMINARE/A2%202019%20DPP%20ATTUALIZZATO/A2.1%20DPP%20FG_2019%20RELAZIONE.pdf)
- Indicatori demografici, disponibili su ISTAT, Popolazione e famiglie, sezione "Dati e Microdati". <https://www.istat.it/it/popolazione-e-famiglie?dati>
- Indicatori socio-economici, disponibili su ISTAT, Condizioni economiche delle famiglie, sezione "Dati e Microdati". <https://www.istat.it/it/condizioni-economiche-famiglie?dati>
- Mantini P (2013) Rigenerazione urbana, resilienza, re/evolution profili giuridici, in *Atti del XXVIII Congresso dell'Istituto nazionale di urbanistica*, Roma
- MIMS (2022) Rapporto Pinqua. [https://www.mit.gov.it/nfsmitgov/files/media/notizia/2022-04/Rapporto\\_Pinqua\\_web.pdf](https://www.mit.gov.it/nfsmitgov/files/media/notizia/2022-04/Rapporto_Pinqua_web.pdf)
- Palvarini P (2006) Il concetto di povertà abitativa: rassegna di tre definizioni Dottorato URBEUR. <https://docplayer.it/18435817-II-concetto-di-pover-ta-abitativa-rassegna-di-tre-definizioni.html>
- PINQuA—Programma Innovativo Nazionale Qualità dell'Abitare. <https://www.mit.gov.it/comunicazione/news/progetti-pinnqua-primi-risultati-roma-il-13-aprile-2022-con-il-ministro>

## Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.