

## Original Research Article

# Redefining the Aq-Oi: A Pattern for Transitional Housing after the 2019 Golestan Flood

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## Abstract

**Problem statement:** Providing temporary housing after a disaster is essential to protect the survivors and resume their daily activities, but it may not result in an actual housing transition. After three years of the flood in Chen-Soley, different forms of housing transition are observed. While in some cases, the residence transition has been done through the completion of the reconstruction of permanent housing or the incremental evolution of temporary housing, some affected households still live in temporary units or have returned to previously damaged houses, and their health and safety are at risk.

**Research objective:** This study attempts to present a theory that can explain the transition of residence of the survivors from temporary to permanent housing in Chen-Soley village.

**Research method:** This research has used the qualitative approach and the grounded theory method to identify the factors affecting the transition of residence of affected households. Data collection was done through participatory observation and semi-structured interviews. Samples were selected through theoretical sampling and data analysis was carried out through qualitative data coding.

**Conclusion:** It is possible to redefine the pattern of Aq-Oi housing to transition the residence of survivors by recreating the meaning of the place. The paradigm model of the research shows that this matter depends on the causal conditions, including “the way of supporting housing provision” and “local economy,” providing “safety and security,” and “climate comfort”. Residents’ interactions regarding these conditions were classified into the categories of “community participation,” “capacities of Aq-Oi,” “sense of belonging,” “incremental evolution,” and “form of temporary housing”. Ultimately, the consequences of these interactions have appeared in the form of using “reusing options” of temporary housing, trying to “maintain cultural identity”, and, in some cases, “non-transition of residence”.

**Keywords:** *Post-disaster sheltering, Transitional housing, Flood, Aq-Oi, Aq-Qala.*

## Introduction

Shelter plays an essential role in post-disaster recovery because it is closely related to other recovery indicators such as livelihood, health,

human dignity, and social reorganization. But it still faces many challenges, especially in the relationship between the phases of providing shelter and housing (George, Guthrie & Orr, 2022, 8; Lines, Walker, & Yore, 2022: 2). Although post-disaster housing recovery should be a continuum,

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often housing assistance programs adopt a phased approach, which simplifies progress tracking, task-management of humanitarian actors, and separates their responsibilities (Pezzica, Cutini & de Souza, 2021, 2).

Following the 2018 Golestan flood, to provide housing for the survivors in Chen-Soley village, transitional housing using the model of traditional Turkmen gazebos, Aq-Oi (known as Alachigh), was used. Three years after the flood, different types of residential transition have been observed among the affected households. While some of the affected households have managed to move from temporary to permanent residences, others are still living in temporary settlements where their health and safety are at risk.

To explain the patterns of transition of the residential status and extract the influencing factors on them, this study examines the transitional housing of affected households in Chen-Soley village. This research focuses on the incremental process of evolution of the Aq-Oi pattern as transitional housing. Examining this unique experience in providing transitional housing can provide useful lessons for future experiences in the field of using the potential capacity of traditional construction systems to improve the quality of post-disaster sheltering and housing.

## Research Questions

- What have been the patterns of residential status transition from temporary Alachighs to permanent housing in the village of Chen-Soley?
- What are the factors influencing the transition of the residential status of affected households?

## Research Background

Many studies have addressed the phases of sheltering and housing in the disaster management cycle, including the provision of temporary housing during the rehabilitation period (UNDRO, 1982; Quarantelli, 1995). Although temporary housing plays a crucial role in the recovery of the affected

community (Félix, Branco & Feio, 2013, 136), many studies have criticized it for reasons such as cultural inadequacy, excess costs, delays in the reconstruction of permanent houses, and unfavorable environmental effects. In this context, it is possible to refer to the study of Hadafi & Fallahi (2010) on providing temporary housing after the 2003 earthquake in Bam, and the study of transitional housing after the 2004 tsunami in Tamil Nadu state in India (Biswas, 2019). To respond to these challenges, research has been carried out in the field of strategic planning (Johnson, et al., 2006; Johnson, 2007), participatory planning (Davidson, et al, 2007; Lizarralde, 2021), and organizational design for stakeholders collaboration (Davidson, 2010) in post-disaster temporary housing. Now, there is consensus on approaching post-disaster sheltering and housing as a process rather than a product. The concept of transitional housing, which emerged after the 2004 Indian Ocean tsunami, serves this purpose (Corsellis & Vitale, 2005; Sheltercenter & DFID, 2012). In this regard, Miller (2020) has investigated the capacity of indigenous housing as transitional housing after the 2010 Haiti earthquake. Kotani, Honda, Imoto, Shakya & Shrestha, (2020) have also studied the transition patterns of rural households and the factors affecting them after the 2015 earthquake in Nepal, and they have examined how the survivors recovered according to their residential status over time.

However, providing shelter after the flood in the village of Chen-Soley is considered a unique experience in Iran, both in terms of adopting the transitional housing approach and because of the use of the indigenous housing pattern of the affected area. This indicates the difference between the present research and other studies in this field.

## Theoretical Foundation of the Research

To develop a conceptual framework for the study, this part of the research reviews the theoretical literature related to the provision of shelter and housing after the disaster. According to the purpose

as well as the characteristics of the case, the research focus is mainly on the transitional housing approach.

### Post-Disaster Sheltering and Housing

Despite emphasizing the importance of providing shelter after a disaster, this issue has been described as one of the most 'intractable problems' in humanitarian aid. The word "shelter" is a controversial concept and is often conflated with "housing". Sometimes these two words are used interchangeably. The 'Shelter Sector' has widened over time to include the term 'settlements', now referred to as the 'Shelter and Settlements Sector' (George, et al., 2022, 1). The key distinction between sheltering and housing after a disaster can be seen in the resumption of household activities and responsibility (Peacock, Dash, Zhang, Van Zandt, 2017, 5). Humanitarian organizations use the term shelter to indicate its informal nature and to clarify that the purpose of the support is to provide accommodation with a limited lifespan but use the term housing in the development sector (InterAction & USAID, 2020). Sphere (2018, 240) also considers the shelter as a space for living and supporting the daily activities of the household, while the settlement is considered a wider location where people and the community live.

In this regard, the United Nations uses the concept of adequate shelter in the sense of "something more than a roof over one's head". It means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate basic infrastructure; suitable environmental quality and health-related factors; and adequate and accessible location concerning work and basic facilities: all of which should be available at an affordable cost (U.N., 1996). The latest definition of this concept includes a movement from 'product' to 'process', and a recognition of the wider impacts of shelter, including livelihoods, health, economic stimulation, education, and reduction of vulnerability (George, et al., 2022, 1).

Generally, post-disaster sheltering and housing are classified into four stages: emergency shelter, temporary shelter, temporary/transitional housing, and permanent housing (Quarantelli, 1995, 45). But these steps should not be considered separately from each other, and in the same way for all affected groups (Line, et al. 2022: 2). temporary shelter and housing are used after the emergency phase. The term "temporary" refers to a relatively short period of its use, and during this period, the survivors can reestablish their daily activities and normal life (Peacock, et al., 2017: 2). These shelters help to ensure the security and safety of the homeless and provide the possibility to initiate the process of rehabilitation from the damage caused by the disaster (Dev & Dash, 2022, 69).

Despite the mentioned benefits, considering the criticisms in the field of its cultural inadequacy, excess cost, and unfavorable environmental effects, it is suggested to eliminate the temporary settlement stage if the conditions are met (Davis & Alexander, 2016, 106). An example of this approach can be seen in the reconstruction of rural areas of Lorestan after the earthquake of 2006. Due to the occurrence of the disaster in the spring season and favorable weather conditions as well as few casualties, the stage of temporary housing was eliminated and the two-stage approach of post-disaster housing was used (Khorshidian, 2012).

### Transitional Housing

Corsellis and Vitale (2005, 10) believe that instead of the various terms of post-disaster sheltering and housing, we should move towards the concept of "transitional settlement" as an alternative to the post-disaster shelter sector. The word "transitional" refers to a progressive process that fills the gap created by the disaster. Although it may not always provide an actual transition into permanent housing or recovery (Lines et al., 2022: 2).

The purpose of the transitional shelter approach is to support a sustainable process based on the objective of the users to build an incrementally personalized

shelter. This process offers various options for the survivors: 1) convert into a permanent house; 2) reuse for another purpose; 3) relocate from the temporary site to a permanent location; 4) resell to generate income to aid in recovery; and 5) recycle for permanent house reconstruction (Sheltercenter & DFID, 2012, 2).

These options were used after the Indian Ocean tsunami in 2004 in the regions of Yogyakarta and Aceh, Indonesia. Survivors carried out a variety of actions, including recycling and reusing transitional housing components, incremental completion, and using them as businesses or additional living space after moving to permanent housing (ibid., 14).

In the field of personalization of transitional housing, Davis and Parrack (2018, 9) suggest that by considering changes over time and from a long-view perspective, it is possible to help solve the challenges of post-disaster housing. Past experiences show that even in cases where there was little possibility for personalization, it happens. Similar to the measures taken by the survivors after the 2010 Haiti earthquake in 18-meter donated units, or after the 2009 Sumatra earthquake in 10-meter temporary units to improve security, and thermal comfort, and provide the necessary spaces for daily activities (Davis & Alexander, 2016, 188).

If transitional shelter is mistakenly considered as a product and not a process, like a complete shelter that is built at one time or delivered to users, contrary to expectations, the recovery

process will be slowed down and most of the used resources will be wasted (Sheltercenter & DFID, 2012, 6). Also, sometimes transitional shelter is mistakenly considered as an approach to permanent reconstruction, such as core-housing, or one-room shelter responses (the example of Pakistan after the 2010 flood). While these approaches do not have transitional shelter capabilities such as use for another purpose, relocation, recycling, and sale. Finally, it is emphasized that the transitional shelter should be done by the participation of the local community, reduce the vulnerability of the community, be cost-effective, can be incrementally upgraded, and provide reuse opportunities to the beneficiaries (ibid., 8).

Fig. 1 shows the main dimensions of the transitional settlement after the disaster as a conceptual framework of the research. In this framework, the transitional settlement, as an approach to post-disaster sheltering, should have characteristics such as cultural and social adequacy, economic efficiency, geographical suitability, and physical safety.

### Methodology

To identify the factors influencing the transition of the residential status of the affected households from the traditional Alachighs built after the flood in the village as transitional housing, this research used a qualitative approach and the grounded theory method. Data collection was done through participatory observation and semi-structured

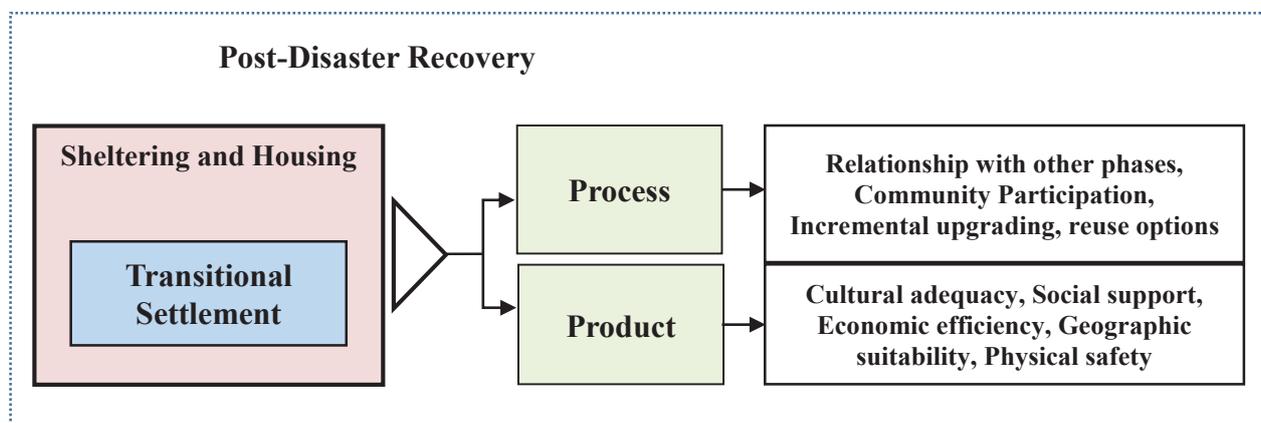


Fig. 1. The conceptual framework of the research. Source: Author.

interviews. The selection of samples was done purposefully and based on theoretical sampling and continued until the theoretical saturation stage. In sum, ten samples of affected households were examined during three-time stages.

To analyze the data, a qualitative data coding technique was used, including three stages open, axial, and selective coding. In this way, first, the categories were classified in the form of conditional, interactional, and consequential dimensions, then a paradigm model was deduced from the analysis of mutual relationships between them.

### Scope of the Study

Following the heavy rains on March 17, 2019, large parts of Golestan province, especially the settlements located on the banks of the Gorgan River, were flooded (Fig 2). The flood caused a lot of damage to infrastructure, agricultural land, and approximately ten thousand residential units. In this disaster, the city of Aq-Qala and its surrounding villages suffered the most damage (Reliefweb, 2019). In this research, Chen-Soley village in Voshmgir district, which is located sixteen kilometers away from Aq-Qala, was selected as a case study to identify the factors influencing the provision of transitional housing for the affected households.

To provide temporary housing in this village, a traditional pattern of housing known as Aq-Oi

Alachigh was used which has its roots in the nomadic life of the Turkmen community. In the Turkmen community, Aq-Oi has a social background and is considered a cultural capital for the residents. Due to its lightness and portability, this type of housing was compatible with the nomadic and migratory life of the Turkmen people. Despite maintaining the tribal system, today the majority of Turkmen nomads have settled down and are engaged in agriculture, and the use of Aq-Oi as housing is very limited.

After three years of the flood, different settlement patterns can be observed in Chen-Soley village:

- Continuing to live in the Alachigh by doing minor repairs to fix defects such as dealing with rainwater penetration, heat, and cold;
- Returning to previously unrepaired houses despite concerns about the collapse of components;
- Living in permanently repaired or reconstructed houses;
- Making fundamental changes to transform temporary shelters into permanent housing or annexing them to reconstructed houses.

### Discussion

Redefining Aq-Oi through the provision of temporary housing depends on the identification of factors and requirements that ensure its performance as transitional housing after the flood. In addition, it should be compatible with the living pattern of



Fig. 2. The overflow of the Gorganrud river and the flooding of the village of Chen-Soley. Source: Authors.

Turkmen families in the current condition. The analysis of the data obtained from the qualitative interviews seeks to identify the factors that are critical to the revival of the traditional pattern of settlement and recovery of the affected community. In the first stage, through open coding and line-by-line analysis of the statements of residents, 70 concepts were identified and categorized into 12 categories. These concepts were known as the most important dimensions that have been effective in meeting the needs of the survivors in the rehabilitation phase and the transition of their residential status. Then, in the axial coding stage, each of the categories was described and explained to provide the possibility of comparing their similarities and differences.

#### • **Aq-Oi capacities**

The main elements of Aq-Oi included wooden sticks, cane matting, and wool felt. Due to its lightness, ability to be separated, and ease of setup, it was compatible with the nomadic pattern of living of the Turkmen households. In addition, self-sufficiency, climatic compatibility, and stability of form were its main features. Residents participating in the research emphasized the strengths of this pattern. In this regard, one of the residents said:

“Turkmen had mobile life according to their livelihood through herding. They lived in Aq-Oi and did all the construction work themselves. It could be folded and moved easily.”

#### • **Feeling of belonging to Aq-Oi**

While remembering the positive features of Aq-Oi, the survivors expressed their interest in it. This showed their emotional attachment and sense of belonging to this pattern of housing. This feeling was stronger in people who had a history of living in Aq-Oi. One of the participants in this field acknowledged as follows:

“Alachigh is good for us because it is more comfortable, we keep it because we like it.”

#### • **Preserving cultural identity**

The respondents considered Aq-Oi Alachigh as the symbol and identity of the Turkmen people and were

proud of it. Some of them also stated their wish to have an Alachigh. One of the respondents who repaired and completed his temporary Alachigh and used it as permanent housing said:

“Aq-Oi is our symbol and pride. Our ancestors lived in it. It [his Alachigh] remains an icon.”

#### • **Reuse options**

The main forms of reuse of temporary Alachighs in Chen-Soley village were the following: Saling of temporary Alachighs after the completion of permanent housing reconstruction; destroying or abandoning it if it's not possible to sell it; continuing to live in temporary Alachighs despite the wear and tear of its components; using as a room, storage, kitchen, or a secondary space of permanent housing. In this regard, one of the respondents said:

“A customer came to buy it, but my father kept it. It is currently used as a kitchen, but later we want to live in it. My parents like it very much.”

#### • **Incremental evolution**

According to the resident's sense of belonging to the Turkmen traditional Alachighs, some of the participants showed a desire to complete and maintain the donated temporary housing. But several factors, including affordability, technical skill in construction, the need for an example as a pattern of evolution, and the flexibility of temporary housing for change or expansion, were known to be influential in the implementation of this desire. Fig. 3 shows one of the studied cases that was evolved by the residents and in which the transition of residence from temporary to permanent took place. The head of the household of this case has admitted that:

“We spent a lot and now it has improved and we are satisfied. We removed the mat and the tarpaulin and replaced them with expanded metal and then covered it with concrete. We kept the metal structure, but it is surrounded by bricks.”

But the incremental evolution of temporary housing for other households was not possible until the end of the research. About the causes of this issue, several residents had made such statements:

“If we have money, we build it and if we don't have



Fig. 3. An evolved case of an Alachigh transfer residence from temporary to permanent. Source: Author.

money, we sell it... there is no other choice.”; “We would like to cover the walls with expanded metal and install a window, but we can’t do anything without money.”

#### • Failure to transition the residential status

More than three years after the flood, some of the affected households were still living in temporary Alachighs, and some of them returned to their previous houses due to the problems of the temporary housing, such as wear and tear of their components. While their previous houses were not safe enough to live in due to the damage caused by the flood (Fig. 4). The residents of these cases stated that:

“The four sides of the house are cracked. The cracks are so big that they can be seen outside. We filled the cracks with plaster...”; “We planned to destroy the old house, but because we could not afford to pay back the loan, we did not take a loan and did not build a house.”

#### • Supporting the housing sector

Temporary Alachighs were provided in Chen-Soley village with the support of donors. In some cases, the victims were dissatisfied with the way and amount of aid was provided. The most important reason for residents’ dissatisfaction was the feeling of injustice. Some of them believed that the aid was not distributed equally. Others also expected more help than others, for reasons such as; The different conditions of households in terms of the number of members, the vulnerability of

households due to financial limitations, or the illness of the head of the household. According to a resident:

“My husband is sick and we couldn’t fix the Alachigh, I didn’t have money to fix it myself... They gave everyone a fridge and stove, but they didn’t give them to me, they had a problem with me.”

In addition, some residents, despite the three years that have passed since the flood, still expected the continuation of aid. This indicates that their expectations were raised. The statements of several residents in this regard had been like this:

“After one or two months, they completely forgot about us... Why didn’t the next help come?”; “[In addition to the Alachigh] we also wanted one-room shelter because my husband’s parents were sick. But they said this [Alachigh] is enough for you.”

#### • Economic efficiency

One of the basic needs of the survivors during the rehabilitation phase was the resumption of economic activities. Considering employment in the field of furniture making, agriculture, and animal husbandry as the dominant way of livelihood in the village, the provision of appropriate spaces was one of the issues emphasized by the respondents. For example, one of the residents working in animal husbandry said:

“If someone steals the sheep, I don’t understand, the sheep belong to others.”

Another economic capacity of temporary Alachighs



Fig. 4. The continued residence of the survivors in temporary housing or returning to their previously damaged houses. Source: Author.

was the possibility of selling them to provide part of the financial resources needed for housing reconstruction. Some participants acknowledged this regard:

“I want to sell it and complete my house. They buy it for 12- 13 million.”; “We sold it for 7,500. We had a neighbor who wanted to put it in front of his house ... We don’t have the financial means, so we said to sell it and complete our house.”

#### • Safety and security

Due to the low durability of the components of the temporary Alachighs, especially in the covering of the wall and roof, after a year, many residents did not feel safe in them. Also, the memory of the flood and inundation up to one-meter height was effective in intensifying this feeling. Some of the interviewees’ statements were as follows:

“It is not usable now, the roof has holes, we put plastic on it, but it didn’t help.”; “In my opinion, it is not safe at all. Because its height is very low and if there is a flood, the water will come in again.”

However, most of the residents were satisfied with the security during the rehabilitation phase. Tribal structure and strong social bonds among the Turkmen people were influential factors in maintaining the security of the survivors.

#### • Community participation

The planning and implementation of the temporary housing project in Chen-Soley village were mainly

done with the opinion of the donors. The statements of residents showed that their participation is only limited to choosing the location of temporary housing, and in some cases, it was done at low levels, such as labor work and moving materials. In this regard, some residents said the following:

“We could not give an opinion, they made it themselves and did not ask for an idea.”; “They made it according to their preference. No, they didn’t ask our view at all.”; “They brought workers and built the Alachigh. we did nothing. But they asked us about its location.”

The low level of community participation in the provision of temporary housing limited the opportunities to recognize the needs of the survivors, the mutual transfer of local knowledge, and technical construction skills. This was also effective in decreasing the users’ satisfaction with temporary housing. But consultation in determining the location of temporary housing resulted in the satisfaction of the residents in this regard.

#### • Climatic comfort

The most significant cause of residents’ dissatisfaction with the temporary housing was the unfavorable climatic comfort conditions in the Alachighs in terms of the intensity of heat and cold, ventilation, and the penetration of rain-water. According to one of the respondents:

“In winter we got earaches from the cold and in summer we went under the shade of the tree to escape from the heat.”

Some of the residents’ solutions to adjust the mentioned

problems were the use of thatch on the outer surface, carpet or blanket coverage on the inner surface, and the use of nylon sheets and carpet on the roof of the Alachigh. According to the participants in the research, the traditional model of Aq-Oi did not have such weaknesses and was able to provide comfortable conditions:

“It [temporary Alachigh] does not have the efficiency of Aq Oi. Its wall was made of felt, the felt was raised a little and the wind came easily from all four sides. The roof was also made of felt and the rain did not penetrate at all.”

• **Shape and form of temporary housing**

The form of donated Alachighs, despite reminding of the traditional Aq-Oi housing, faced limitations in meeting the basic needs of the survivors. The difficulty of furniture and the problem of future development caused by the circular plan of the Alachigh were among the reasons why the respondents preferred a Connex or a square room.

“This space is very awkward because it is not a square room.”

After identifying the categories, based on their characteristics and comparing their similarities and differences, they were classified into three categories: conditional, interactional, and consequential. Table 1 shows the mentioned classification developed based on the transition of the survivors’ residential status, the interactions and actions that took place, and the resulting consequences.

In the selective coding stage, the relationship between the categories was explained to determine under what conditions the interactional categories affected the transitional settlement. In this way, the identified categories were connected in a storyline, and a core category was deduced that could link all the perceptions and actions of the survivors.

The provision of transitional housing in the village of Chen-Soley was conducted to use the capacity of residents’ sense of belonging to traditional Turkmen

Table 1. Concepts, categories, and core category resulting from qualitative data coding. Source: Authors.

Concepts	Categories	Type of the Category	Core category
Suitability of the habitation pattern, Ability to move, Cultural adequacy, Serving traditional ceremonies	Aq-Oi capacities	Interactional	Recreating the meaning of place in post-disaster housing
History of residence, Emotional attachment, Desire to have Alachigh, Possibility of personalization, Feeling of comfort, Desire to have Alachigh	Feeling of belonging	Interactional	
Opposing to sale, Spending to upgrade Alachighs, Symbolization	Preserving cultural identity	Consequential	
Possibility of separating components, Using it as a permanent housing space	Reuse options	Consequential	
Empowerment, Financial ability, Flexibility, Satisfaction, Repair and maintenance, Technical skill, Sample pattern, Construction materials, Implementation by residents	Incremental evolution	Interactional	
Returning to the previous house, Demolishing or abandoning the temporary housing, Continuing the temporary life	Transition the residential status	Consequential	
Vulnerable groups, Compatibility with the household dimension, Need for means of living, Compliance with justice, Rising expectations, Satisfaction	Supporting the housing sector	Conditional	
Responding to livelihood activities, Affordability, Financial ability, Possibility of selling temporary housing	Economic efficiency	Conditional	
Durability of components, Structural safety, Disturbance of beasts, Feeling of security	Safety and Security	Conditional	
Executive model, Purpose, 1 and field of participation, Consultation, Decision-making	Community participation	Interactional	
Windows and ventilation, Indigenous knowledge of construction, Rainwater penetration, Dealing with heat and cold	Climatic comfort	Conditional	
Desire to be up-to-date, Preference for other housing options, Spatial form, Furniture manner	Shape and form of temporary housing	Interactional	

Alachigh. Although the donated units played a significant role in improving the conditions of the survivors in terms of safety and security as well as the resumption of daily activities, the level of response to the basic needs of the survivors, such as providing comfortable conditions, compatibility with their way of life and the local economy, were identified as conditional factors that challenged the achievement of the aforementioned purpose.

For example, temporary houses, contrary to the main pattern of Aq-Oi, were not successful in providing comfortable climatic conditions. This weakness was recognized as the most important cause of the survivors' dissatisfaction with their temporary housing and considering them uninhabitable. While remembering the positive qualities of Aq-Oi, the survivors mentioned it as their symbol and pride. But, the degree of respondents' feeling of belonging was different according to their experience and history of living in Aq-Oi. Despite the emphasis on recreating the positive features of Aq-Oi, residents did not consider its shape and form appropriate to their current needs and way of living. The consequence of the mentioned conditions and interactions was the ineffectiveness of the temporary housing program in strengthening the cultural identity through the traditional pattern of housing.

The residents tried to incrementally evolve or make changes in the temporary housing for re-use, depending on conditional factors such as the type and amount of assistance to the housing sector and their financial and technical capabilities. However, the limited participation of the beneficiaries in providing temporary housing was the most significant interactional factor that limited the effectiveness of their actions in improving the housing conditions. Aq-Oi, due to its lightness, ability to be implemented by beneficiaries, and use of local materials, is consistent with the housing needs during the rehabilitation phase. These interactional capacities could lead to the recognition of the hidden needs of the residents, the transfer of technical knowledge, and help to improve their sense of ownership towards the housing project

if it was accompanied by conditional factors such as the provision of financial and technical support and the interactions in the field of residents' participation at high levels of empowerment and decision-making. The consequence of these conditions and interactions could be the influence of temporary Alachighs in the recovery of the affected households and the transition of their residence status from temporary to permanent. This intention was achieved in one of the studied cases, according to the characteristics and facilities of the household. So that to preserve and continue the cultural identity, the temporary Alachigh was evolved by the residents and used as permanent housing.

According to the presented categories and the storyline that connected them, "Recreation of the meaning of the place" can fulfill the requirements of transitional settlement as the core category. The most important consequence of choosing the Aq-Oi pattern for providing temporary housing by donors, intentionally or unconsciously, was strengthening the sense of place among the survivors. A feeling that becomes a part of the survivors' identity, and can help to generate positive feelings such as a sense of trust, safety, security, belonging, and rootedness. It also encourages people to re-invest emotionally, and participate in physical reconstruction, and community recovery (Lak, 2015, 162).

In addition to the physical quality and sense of belonging of the users to the form of settlement, this meaning could include other dimensions such as responding to psychological and comfort needs, economic activities, and social relations. But due to limiting it only to the form of housing, the indigenous pattern of housing did not have a significant effect in improving the quality of transitional housing. The theory resulting from the identification of conditional, interactional, and consequential factors in the transition of the survivors' residence status through the redefinition of Aq-Oi is presented in the paradigm model of Fig. 5.

## Conclusion

Many families affected by the flood in Chen-Soley

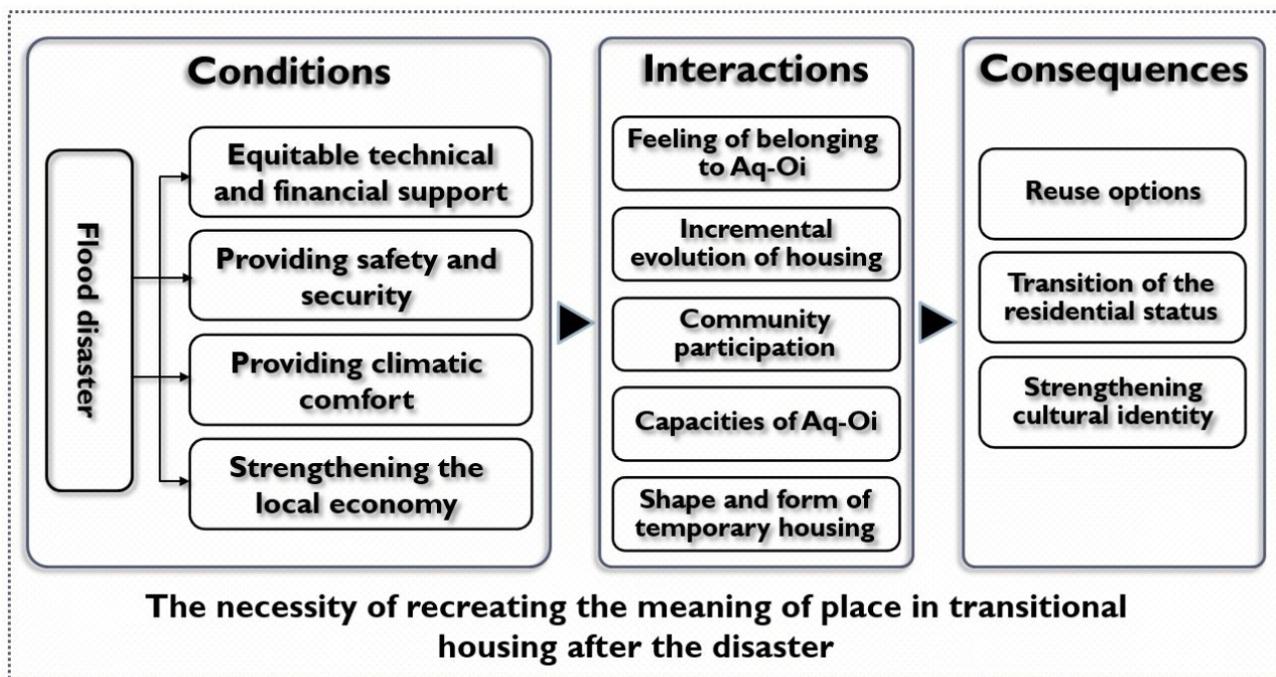


Fig. 5. Paradigm model of transitional housing after the flood disaster in Chen-Soley village. Source: Author.

village were forced to live in temporary housing for a long time due to limited access to financial and physical resources. This study aimed to present a theory that could explain the transition of residence from temporary to permanent housing through the interpretation of the perceptions of the survivors of the temporary Alachighs donated by donors. Based on the theory derived from the analysis and comparison of the qualitative data obtained from the research, this was found to be possible by recreating the meaning of the place. This meaning cannot be achieved only through the physical form of the settlement but includes other dimensions such as the activities, meanings, and imaginations of the users. Although the traditional pattern of Aq-Oi could be a tool to create meanings such as the continuity of cultural identity and strengthening the sense of belonging of the residents, it should also provide socio-economic support, physical and mental comfort, safety, and security to the survivors. In this way, the pattern of traditional housing can enable the transition of residence from temporary to permanent in a continuous process and ultimately lead to reducing vulnerability and accelerating recovery of the affected community. Through the effective

participation of the affected households and taking into account their differences in capacities and limitations, this process empowers them to change their residential status based on their facilities, needs, and way of living.

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