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RELATIONAL MOBILITIES AND RURAL CULTURAL LANDSCAPE RESILIENCE: PERMANENT AND TEMPORARY RESIDENTS IN THE HAZELNUT LANDSCAPE OF ORDU, TÜRKİYE

Seda Duman Celep¹, Berna Dikçınar Sel²

¹Dr., Independent Researcher, İstanbul, Türkiye

²Assoc. Prof. Dr., Department of City and Regional Planning, Yıldız Technical University, İstanbul, Türkiye

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Corresponding Author: Seda Duman Celep
(sedaduman61@gmail.com)

ABSTRACT

Rural cultural landscape resilience has commonly been understood through the presence of permanently resident rural populations, with out-migration frequently framed as a process that erodes the socio-cultural and economic foundations sustaining landscape continuity. This article challenges this resident-centred perspective by examining the relational dynamics between permanent and temporary residents in the hazelnut landscape of Ordu, Türkiye. Drawing on qualitative fieldwork conducted during the 2021 hazelnut harvest – comprising in-depth interviews with 65 participants across 50 agricultural holdings and 11 village heads – the study demonstrates that agricultural production and place-based practices are sustained despite long-term out-migration and demographic ageing. Findings reveal that the distinction between permanent and temporary residence operates not as a fixed demographic boundary but as a fluid, life-course-dependent continuum shaped by seasonal mobility, intergenerational obligation, and attachment to place. Seasonal returns during the harvest period function as socially embedded and intergenerationally reproduced adaptive mechanisms that redistribute labour and care across space and time, sustaining production continuity without requiring demographic permanence. Underlying these dynamics, economic, socio-cultural, and spatial factors operate as interlocking resilience mechanisms that collectively sustain agricultural production, cultural continuity, and attachment to place. The study reconceptualises rural cultural landscape resilience as an outcome of relational mobilities rather than fixed populations, emerging through the dynamics between permanent and temporary residents, with implications for rural development and cultural landscape conservation policy.

KEYWORDS: Rural Cultural Landscapes, Cultural Landscape Resilience, Relational Mobilities, Permanent and Temporary Residents, Seasonal Mobility, Out-Migration, Rural Resilience, Intergenerational Transmission.

1. INTRODUCTION

Rural cultural landscapes refer to place-specific and dynamic processes of formation in which tangible and intangible cultural values are produced through human production activities carried out in accordance with local ecological conditions (Farina, 2000; Antrop, 2005; Taylor and Lennon, 2011; ICOMOS-IFLA, 2017). The literature has largely conceptualised these processes through populations permanently residing in rural areas, while closely linking landscape resilience to the long-term permanence of local communities (Gadgil and Berkes, 1991; Rescia et al., 2010; ICOMOS-IFLA, 2017; Agnoletti and Santoro, 2022). From this perspective, the continuity of the rural population ensures the continuity of production activities and production-based ways of life, thereby sustaining the functional and cultural continuity of rural landscapes. This resident-centred understanding, however, has increasingly been challenged by relational frameworks that conceptualise rural populations as maintaining connections to place beyond permanent residence – an argument developed further in Section 2.

Contemporary rural dynamics require rural cultural landscapes to be understood as complex, relational, and multi-actor processes that cannot be adequately explained solely through permanent populations or spatial continuity (Halfacree, 2006, 2012; Wilson, 2010; Plieninger et al., 2015). Populations who have migrated out of rural areas continue to maintain attachments to rural space through ownership relations, production practices, family ties, a sense of belonging, and decision-making processes, thereby playing a key role in landscape resilience (Duman and Dikçinar Sel, 2024; Songülen et al., 2024). Resilience is thus closely linked not only to spatial permanence, but also to the reproduction of production and societal relations across different temporalities and forms of engagement.

This article examines rural cultural landscape resilience through the continuity of production forms and processes enabled by the historical continuity and intergenerational transmission of producer actors. Knowledge acquired through sustained interaction with the land, shared narratives, and agricultural practices becomes intertwined over time, forming a collective body of knowledge and practice (Ingold, 1993; Berkes et al., 2000; Herman, 2015; ICOMOS-IFLA, 2017). The continuity of production forms and processes becomes possible through relational structures established between permanent and temporary residents. While the continuity of

place-based production depends partly on populations maintaining everyday rural routines, actors who sustain production through economic, socio-cultural, and spatial attachments continue to support this continuity under conditions of out-migration.

Within this context, the distinction between permanent and temporary residents is adopted as an analytical framework for examining relational mechanisms of landscape resilience. Permanent residents are actors who reside in rural areas year-round, regularly sustain production practices, and act as carriers of everyday routines in rural social life (Halfacree, 2012; Haartsen and Stockdale, 2018). Temporary residents, by contrast, do not sever their spatial and cultural attachments to rural areas but maintain more periodic, cyclical, or multi-local relationships through visits, seasonal presence, or partial return (Hall and Müller, 2004; Stedman, 2006; Pretto, 2021). Rather than reducing rural population processes to a binary distinction between residents and non-residents, this framework enables analysis based on the networks of economic, socio-cultural, and spatial relations through which actors engage with rural landscapes.

Accounting for approximately 36% of Türkiye's hazelnut production, Ordu provides a distinctive context in which hazelnut-based rural production plays a decisive economic, socio-cultural, and spatial role, and where long-standing out-migration enables clear observation of the relationships between permanent and temporary residents and their engagements with space. The central research question is: How do relations between permanent and temporary residents shape the resilience of the hazelnut landscape of Ordu? The analysis examines how agricultural production is sustained under conditions of out-migration, what economic, socio-cultural, and spatial factors structure the engagements of permanent and temporary residents with hazelnut production and rural space, and how the relationships between these two groups shape landscape resilience.

This study contributes to debates on rural resilience, rural cultural landscapes, and population-space relations in three main ways. First, it conceptualises rural cultural landscape resilience as an outcome of relational mobilities that are institutionalised and intergenerationally reproduced through seasonal forms of participation, rather than continuous physical residence. Second, it demonstrates how permanent and temporary residence function as relational and life-course positions through which labour, care, and

responsibility are redistributed across space and time. Third, by focusing on a monocrop-based cultural landscape, it shows how production continuity can be sustained through cyclical return practices even under conditions of long-term out-migration and demographic ageing.

2. CONCEPTUAL FRAMEWORK: TOWARDS A RELATIONAL UNDERSTANDING OF RURAL CULTURAL LANDSCAPE RESILIENCE

2.1. Rural Cultural Landscapes: A Multi-Dimensional and Relational Concept

The concept of rural cultural landscape has evolved through successive disciplinary contributions, expanding from its origins in physical geography to encompass social, economic, spatial, and cultural dimensions. Early approaches, rooted in the work of Sauer (1925) and the German geographical tradition, defined cultural landscapes as the material outcomes of human transformation of natural environments, foregrounding culture as the determining agent of spatial form (Jones, 2003; Robertson and Richards, 2003).

Subsequent theoretical developments significantly expanded this understanding. Symbolic approaches reconceptualised landscape as a socially constructed and ideologically laden text – not merely a visible form, but a representational system through which dominant values, power relations, and cultural identities are expressed and naturalised (Cosgrove and Daniels, 1988; Cosgrove, 1998; Rowntree, 1996; Robertson and Richardson). Phenomenological approaches further deepened this perspective by emphasising the experiential and embodied dimensions of landscape. As Ingold (1993) argued, landscapes are not static backdrops to social life but are constituted through ongoing temporal and practical engagement; they are always in the making, continuously shaped by and shaping human action, memory, and place attachment (Mitchell, 2002; Hirsch, 1995; Tilley, 1994). Post-Marxist approaches added a further critical dimension by attending to individual agency, structural power, and the contested production of meaning in landscape formation (Olwig, 2007; Lefebvre, 2014; Henderson, 2003).

These converging perspectives are synthesised in contemporary understandings that treat rural cultural landscapes as place-specific, dynamic, and multi-dimensional processes – simultaneously objects of conservation, arenas of socio-economic activity, and frameworks of spatial organisation.

Within this perspective, tangible and intangible cultural values are continuously produced through human productive activities in relation to local ecological conditions, while landscape continuity depends on the sustained interaction of productive populations with land, place, and community (Farina, 2000; Antrop, 2005; Stephenson, 2008; Taylor and Lennon, 2011; Heijman et al., 2019; ICOMOS-IFLA, 2017).

2.2. Resilience of Rural Cultural Landscapes: Economic, Socio-Cultural and Spatial Dimensions

Within this multi-dimensional understanding, the resilience of rural cultural landscapes has been conceptualised as the capacity of these systems to sustain their distinctive economic, socio-cultural, and spatial structures and functions in the face of internal and external pressures. These landscapes are understood as complex adaptive systems in which the capacity to absorb disturbance, self-organise, and adapt emerges through the interactions between natural processes and human activities (Holling, 2001; Folke, 2006; Plieninger and Bieling, 2012; Rescia et al., 2010).

The resilience of these landscapes is constituted by three interacting components, each corresponding to a structural dimension of rural space. The first is the economic dimension, anchored in agricultural income and the local productive economy: agricultural production determines land cover and use, shapes settlement patterns, and generates the material basis for cultural continuity (Halfacree, 2006; Farina, 2000; Heijman et al., 2019). The second is the socio-cultural dimension, encompassing ways of life, traditions, local knowledge, and intergenerational practices through which rural communities reproduce identity and place attachment – a dimension not reducible to economic necessity, but sustained through norms, memory, and intergenerational obligation even when economic incentives are limited (Halfacree, 2006, 2007; Berkes et al., 2000; Herman, 2015). The third is the spatial dimension, referring to land ownership patterns, settlement morphology, agricultural land use, and the physical infrastructure enabling productive and domestic life. These structures mediate the relationship between economic activities and cultural practices while providing the material anchoring through which place attachments are sustained (Antrop, 2005; Halfacree, 2012; Stedman, 2006).

From a planning perspective, resilience is not a property of any single component but emerges from

the degree of coherence and integration among all three. When these structures become disarticulated, the landscape becomes vulnerable to irreversible transformation (Walker et al., 2004; Plieninger and Bieling, 2012).

2.3. The Limits of Resident-Centred Frameworks and the Need for a Relational Approach

Within this three-dimensional framework, the existing literature has predominantly associated resilience with the presence of permanently resident rural populations, treating population continuity as a proxy for the continuity of agricultural knowledge, productive practices, and intergenerational transmission (Gadgil and Berkes, 1991; Rössler, 2006; Agnoletti and Santoro, 2022; ICOMOS-IFLA, 2017).

However, this resident-centred framework confronts a significant empirical anomaly in many contemporary rural contexts: agricultural production and land-based practices frequently persist – and in some cases expand – in areas experiencing sustained population decline and demographic ageing (Kasimis, 2008; Duman and Dikçınar Sel, 2024). This pattern suggests that the three-dimensional resilience framework outlined above cannot be adequately operationalised through permanent residence alone.

Within rural geography and rural sociology, relational approaches have begun to address this limitation by reconceptualising rural places as constituted through ongoing social and economic practices rather than fixed populations, and migration as a reconfiguration of population-space relations rather than their severance (Halfacree, 2006; Woods, 2010; Plieninger and Bieling, 2012). From a planning perspective, if the economic, socio-cultural, and spatial dimensions of landscape resilience are sustained not only through permanent residence but also through mobility, multi-local living, and cyclical return, then frameworks that condition landscape conservation on demographic permanence risk overlooking or misrecognising the actual mechanisms through which rural places are reproduced.

This article develops a relational resilience framework that reconceptualises the distinction between permanent and temporary residents not as a fixed demographic classification, but as a relational, life-course-dependent, and spatially distributed structure through which landscape integrity is collectively sustained. Within this framework, permanent and temporary residents are understood as complementary actors whose differentiated yet

interdependent engagements with land, production, and place jointly constitute landscape resilience under conditions of long-term demographic change.

3. THE HAZELNUT LANDSCAPE OF ORDU: CONTEXTUALISING BETWEEN PERMANENT AND TEMPORARY RESIDENTS

Ordu province occupies a central position in Türkiye's strategic role in global hazelnut production. With Türkiye accounting for approximately 60% of world hazelnut output and Ordu alone contributing nearly 36% of this total, the region constitutes a distinctive rural cultural landscape of global significance. Agricultural land covers 44% of the province, with hazelnut orchards comprising approximately 39% of total land cover. Together with forest areas, land-based uses account for 82% of the province's surface – making hazelnut production the dominant agricultural activity and a primary determinant of settlement patterns, rural ways of life, and the historical development of the cultural landscape (Duman and Dikçınar Sel, 2023, 2024; Turkish Statistical Institute, 2024).

The region's settlement pattern is divided into two sub-zones – coastal and mountainous – shaped by geographical conditions and historical production dynamics [1]. From the 1950s onwards, state-supported expansion of hazelnut cultivation progressively restructured both zones around a hazelnut-centred system, reducing the diversity of agricultural activities and reshaping rural life around the seasonal rhythms of hazelnut cultivation (Kaptan, 1978; Duman and Dikçınar Sel, 2024).

Rural-to-urban and international migration, which accelerated after the 1980s, has led to a sharp decline and ageing of the rural population; today, the rural population share has fallen below 20% (Turkish Statistical Institute, 2024). What is particularly striking, however, is that despite population decline, hazelnut cultivation areas have continued to expand.

In Ordu, the long-standing organisation of agricultural production through small-scale family farming, the culturally embedded tendency to retain land ownership across generations, and hazelnut's status as a region-specific staple crop together constitute a socio-cultural foundation sustaining production despite significant rural population decline (Duman and Dikçınar Sel, 2024). These structural characteristics create the conditions under which out-migrated populations maintain their attachments to rural areas and return at specific times to participate in production, rendering Ordu a particularly explanatory context for understanding

how relations between permanent and temporary residents shape rural cultural landscape resilience.

4. RESEARCH METHODOLOGY AND DATA

The resilience of rural cultural landscapes is a multi-layered and relational phenomenon shaped by the interaction of economic, socio-cultural, and spatial processes. Analysing these processes in a context-specific manner requires a research approach focused on production practices and everyday spatial relations rather than quantitative indicators (Antrop, 2004, 2005). Accordingly, this study adopts a qualitative and actor-oriented research design, examining the hazelnut landscape of Ordu as an embedded single-case study across two analytical scales: (i) the rural settlement scale and (ii) the agricultural holding scale. Together, these scales constitute an integrated methodological framework for examining how the structural dynamics underpinning rural cultural landscape resilience are enacted through everyday production practices (Figure 1).

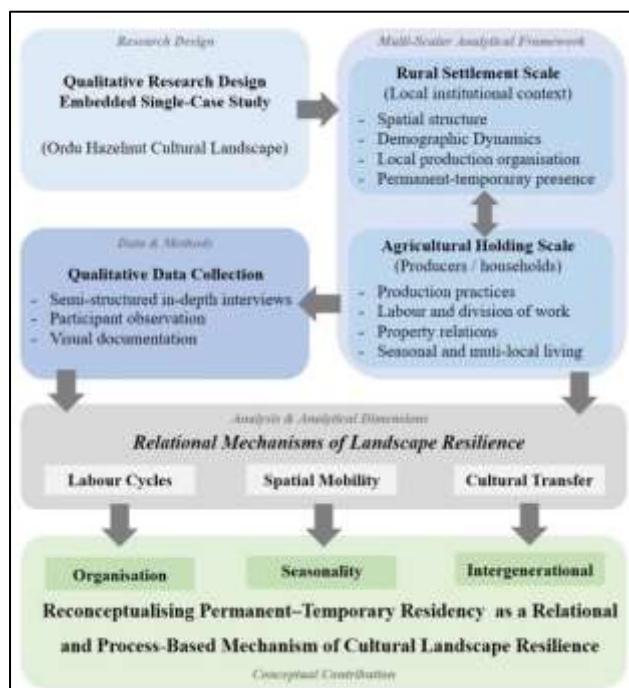


Figure 1: Research Design and Multi-Scalar Analytical Framework of the Study.

4.1. Case Selection and Study Area

The coastal rural settlement zone of Ordu province was selected as the study area based on the coexistence of continued hazelnut production and long-standing out-migration. The spatial framework was defined through a two-stage process. First, the coastal settlement zone was identified as the primary

boundary using Kaptan's (1978) settlement zone classification combined with the legally defined elevation limit for hazelnut cultivation (750 m). Second, districts within this zone were comparatively evaluated using CORINE land cover data alongside Turkish Statistical Institute population and agricultural statistics. Based on this assessment, the rural areas of Fatsa, Perşembe, and Ünye were selected, as they combine high levels of out-migration with clearly observable seasonal and cyclical settlement practices through which hazelnut cultivation is maintained.

4.2. Fieldwork Strategy and Data Collection

Fieldwork was conducted between 31 August and 15 September 2021, coinciding with the hazelnut harvest period – when the simultaneous presence of permanent and temporary residents and production-related relational interactions were at their peak. The research followed an iterative design combining preliminary interviews with institutional actors [2], purposive sampling at both analytical scales, and snowball sampling through participant referrals.

At the rural settlement scale, village heads were selected as local institutional actors due to their comprehensive knowledge of settlement structure, demographic change, and the presence of permanent and temporary residents. At the agricultural holding scale, producers were included as actors who directly experience permanent and temporary residency through their production practices, labour organisation, and engagements with rural space.

Participant selection was guided by Farmer Registration System data indicating that production in the study area is predominantly sustained by small-scale family farms. A purposive sampling strategy was adopted to generate in-depth insight into production practices and actors' engagements with rural space rather than statistical representativeness. Rural settlements were identified through institutional interviews, followed by preliminary interviews with village heads. Based on these interviews, two criteria were established for holding-scale selection: (i) belonging to a family with uninterrupted hazelnut production for at least three generations, and (ii) having life and production practices corresponding to either permanent or temporary residency. Snowball sampling was subsequently applied until thematic saturation was reached.

In total, face-to-face semi-structured in-depth interviews guided by predefined themes in Table 1, were conducted with 11 village heads at the settlement scale and with 65 participants across 50

agricultural holdings. Interviews took place in hazelnut orchards, rural dwellings, and shared public spaces within settlements. Observational findings were documented through photographs. Detailed information on settlement and participant characteristics is provided in Appendices A and B.

Table 1: Themes guiding the semi-structured in-depth interviews.

Rural Settlement Scale	Agricultural Holding Scale
<ul style="list-style-type: none"> • Spatial and physical structure • Population change and seasonality • Agricultural organisation • Local economic structure <ul style="list-style-type: none"> • Socio-cultural life • Environmental conditions 	<ul style="list-style-type: none"> • Life-course trajectories and seasonal mobility • Production systems, production decision • Knowledge and intergenerational transmission <ul style="list-style-type: none"> • Everyday life practices • Place attachment

4.3. Data Analysis

The qualitative data were analysed through a combined examination of interview transcripts [3], observation notes, and visual materials. In the first stage, interview recordings were transcribed and organised into analytical datasets corresponding to the two analytical scales. In the second stage, an iterative content analysis was conducted to identify recurring themes, shared narratives, and relational patterns emerging across participant accounts and observational materials.

The analytical process was informed by the conceptual framework developed in Section 2 while remaining grounded in participants' narratives and everyday production practices. Particular attention was given to the ways in which economic, socio-cultural, and spatial relations were articulated through seasonal mobility, production continuity, and intergenerational responsibility. The analysis

focused on three key relational processes: (i) the organisation of the agricultural labour cycle, (ii) the rhythmic and cyclical structure of spatial mobility, and (iii) the intergenerational transmission of knowledge and cultural values.

Analytical categories were developed through repeated comparison across interviews conducted at both analytical scales. Locally embedded expressions used by participants were analytically translated into conceptual categories capturing intergenerational responsibility, moral obligation, and place attachment.

4.4. Ethical Considerations and Limitations

The research was conducted with approval from a university ethics committee. All interviews were audio-recorded with the informed consent of participants. The study has certain limitations related to access to dispersed rural settlements and time constraints imposed by the harvest period. While these conditions limited the duration and scope of some interviews, they do not undermine the relational and contextual depth of the analysis, though they should be considered when assessing transferability.

5. RELATIONAL MECHANISMS OF RESILIENCE IN THE HAZELNUT CULTURAL LANDSCAPE OF ORDU

The rural settlements examined in this study vary in population size and elevation, but share a dispersed settlement pattern shaped by sloping topography, in which residential and productive spaces are located in close proximity and settlement units are organised around natural thresholds adapted to land constraints (Figure 2).



Figure 1: Rural Settlement Structure (Source: Photographs Taken During Fieldwork in Ordu, September 2021).

Agricultural land accounts for approximately 80% of total land use, with hazelnut cultivation occupying

a central position in the local economic structure and virtually all households engaged in production. In a

context where topography limits mechanisation, production relies heavily on labour-intensive practices. Therefore, producers who cultivate their

own land play a key role in sustaining production culture, traditional agricultural practices and in preserving rural ways of life (Figure 3).



Figure 3: Traditional Agricultural Practices (Source: Photographs Taken During Fieldwork in Ordu, September 2021).

Long-standing out-migration has nonetheless profoundly transformed the demographic structure of these settlements. Permanent residents are now largely concentrated among older age groups – predominantly those aged 65 and above and retirees – reflecting the out-migration of working-age populations in response to limited employment, education, and service opportunities in rural areas. This spatial mobility has not, however, led to a severing of attachments to rural space. Many working-age individuals continue to participate in agricultural production on a seasonal basis, returning as temporary residents particularly in summer and during the hazelnut harvest.

Findings from village head interviews indicate that seasonal mobility increases the rural population by approximately 3.5 times in summer compared to winter (Figure 4). This increase derives both from

working-age populations who have migrated but retain land ownership, and from younger generations – particularly fourth-generation members of landowning migrant households – who return to rural areas on a cyclical basis. Importantly, this population increase is not distributed equally across household numbers and household size, pointing to seasonal return as a family-scale rather than individual phenomenon (Figure 5). During the hazelnut harvest, temporary residents typically stay in their own or family-owned dwellings with multiple family members and participate collectively in agricultural activities. Seasonal visits therefore extend beyond labour provision alone; through attachment to family land and intergenerational relations, attachments to rural space are periodically reproduced through agricultural practice.

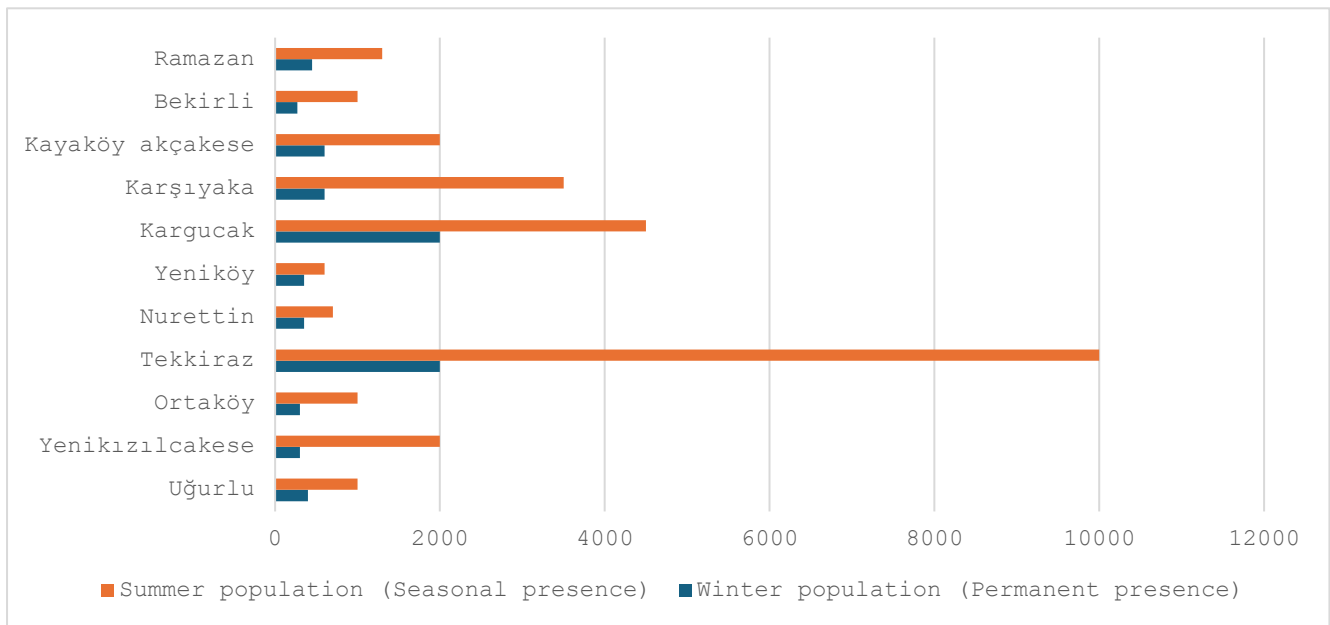


Figure 2: Seasonal Variation in Population Size Across Selected Rural Settlements in Ordu

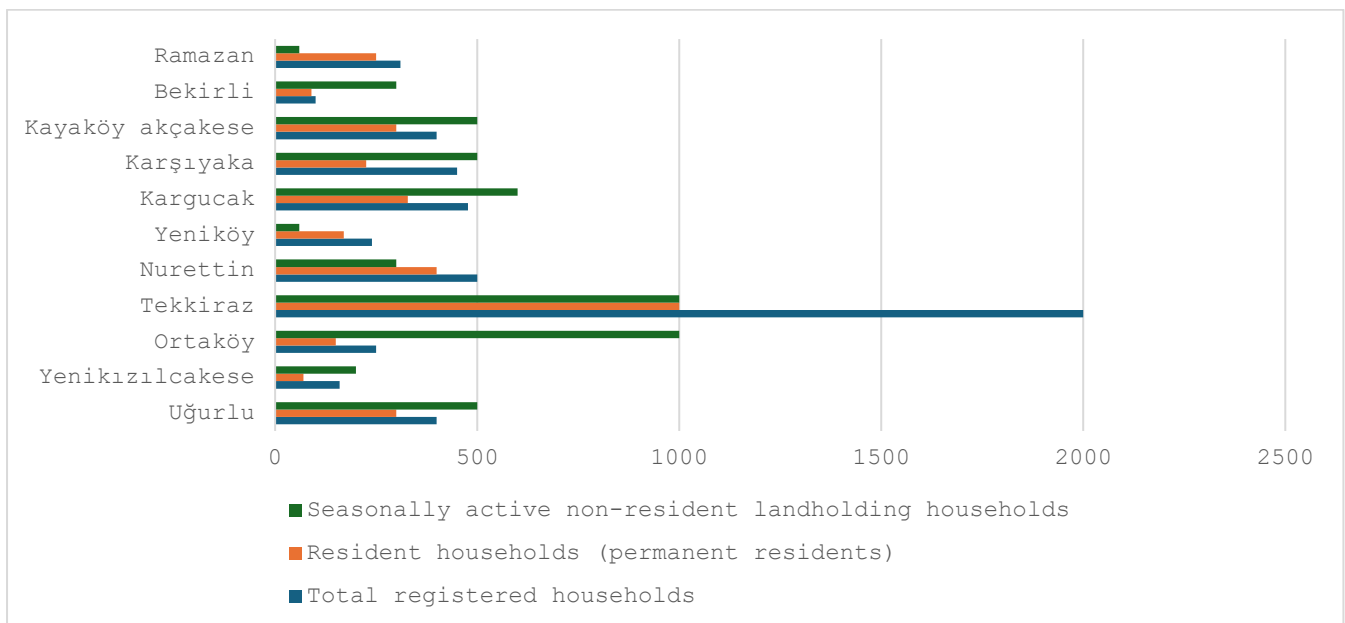


Figure 3: Distribution of Resident and Seasonally Active Non-Resident Households Across Selected Rural Settlements in Ordu

5.1. Permanent and Temporary Residency as Relational and Life-Course Positions

In-depth interviews conducted with 65 participants across 50 agricultural holdings reveal that permanent and temporary residents do not operate as a set of fixed social categories, but rather as relational and dynamic positions shaped by life-course trajectories, seasonal mobility, and production practices. This section analyses these positions through three interrelated dimensions:

patterns of local rootedness and mobility, labour sharing and the division of work, and intergenerational continuity.

Although approximately 91% of participants were born in Ordu (Table 2), local rootedness does not imply uninterrupted residence. Out-migration has enabled attachments to be reconfigured rather than severed. Some 26% of participants migrated to other provinces at various points in their lives but maintained their relations with Ordu – continuing to participate in production as temporary residents,

particularly during the summer months and hazelnut harvest – before subsequently returning permanently (Table 3). A further 8% who were born in Ordu but settled elsewhere for family-related reasons continue to sustain their relations with rural areas as temporary residents.

Table 2: Distribution of Participants by Birthplace.

Birthplace	(%)
Ankara	3,08
İstanbul	4,61
Ordu	90,77
Trabzon	1,54
Total	100

Table 3: Nature of Participants' Relationship with Ordu.

Nature of relationship with Ordu	(%)
Never lived outside Ordu Province	58
Out-migrated and later returned to Ordu Province	26
Previously lived outside Ordu Province and relocated to Ordu	8
Currently residing outside Ordu	8
Total	100

Particularly notable is that 35% of return migration occurs after retirement. While the income generated from small and fragmented landholdings during working life is often insufficient to sustain permanent rural residence, retirement – combined with hazelnut income – provides a more stable basis that makes rural life both practical and attractive. Relations with rural areas are therefore maintained seasonal and cyclical forms of attachment that are reactivated during key production periods.

That approximately 40% of agricultural holdings are operated by temporary residents, and that 37% of all participants occupy a temporary resident position, concretely demonstrates that production can be sustained without a fully permanent population. The small-scale, family-based structure of all holdings and the predominance of hazelnut as the sole crop – in 94% of holdings – reinforce the mutual dependence between permanent and temporary residents. Permanent residents undertake year-round orchard maintenance and everyday agricultural tasks, while temporary residents participate directly during the harvest period and organise care through family-based networks during their absence.

This division of labour is made possible both by hazelnut's capacity to yield with limited maintenance and by the existence of an established market structure. Temporary residents therefore emerge not as auxiliary actors, but as integral participants among whom labour, responsibility, and decision-making are distributed. The differentiation

between extended summer residence (approximately two to four months) and shorter stays limited to the harvest period (approximately two to four weeks) further indicates that temporary residency operates as a socially embedded practice aligned with the agricultural calendar.

Importantly, this arrangement is not constrained by distance. Although 86% of temporary residents live within the provincial boundaries of Ordu, the remaining 14% regularly return from Istanbul, Kocaeli, and Germany, demonstrating that seasonal participation is sustained as a planned and periodically repeated mobility practice rather than as occasional visitation. Seasonal participation thus constitutes a cyclical labour organisation recurring annually in alignment with agricultural production rhythms.

The intergenerational transmission of this cyclical labour organisation is what ensures its reproduction across generations. Hazelnut production has been sustained for at least three generations in 76% of holdings, and many participants describe their involvement as beginning "from birth" – reflecting how agricultural practices are learned within the family and repeatedly enacted across generations. Although a significant proportion of the third generation (42%) has migrated, they continue to return regularly during the harvest period together with family members. The presence of fourth-generation participants born in other provinces (11%) further demonstrates the capacity of these practices to be reproduced despite spatial mobility.

5.2. Interlocking Mechanisms of Resilience: Economic, Cultural and Spatial Factors

In-depth interviews reveal that decisions to sustain hazelnut production and maintain attachments to the rural landscape are shaped among both permanent and temporary residents through the combined and mutually reinforcing operation of economic, socio-cultural, and spatial factors. Rather than functioning independently, these factors constitute interlocking resilience mechanisms that collectively sustain the long-term continuity of the rural cultural landscape.

The economic factor operates as a determinant for both groups, although in different ways. For the majority of permanent residents, hazelnut income constitutes the primary source of livelihood, while for temporary residents it functions largely as a supplement to urban wage income. In neither group, however, can economic engagement be reduced solely to income calculation. Among permanent residents, production is experienced as a practice

embedded in the rhythms of everyday life – particularly among retirees, who describe agricultural work as structuring daily routines and giving meaning to life:

“You work a day and come home tired in the evening, but satisfied.”

Among temporary residents, economic justifications are frequently articulated together with references to inherited land and family responsibility:

“I don’t make much money from hazelnuts, but you can’t sell the land – it came from our ancestors, it’s an obligation.”

These narratives indicate that economic engagement is embedded within a broader cultural and moral framework rather than functioning solely through instrumental economic rationality.

The socio-cultural factor reinforces economic motivations while frequently extending beyond them. For both permanent and temporary residents, hazelnut production is understood not merely as an income-generating activity but as a way of life grounded in intergenerational transmission, identity, and spiritual attachment to place. Many participants described production as deeply connected to the maintenance of inherited land and the continuation of the ‘baba ocağı’ – a term carrying meanings of rootedness, memory, and moral obligation. Land is therefore perceived not only as an economic asset but also as a family heritage to be protected and transmitted across generations:

“I wouldn’t grieve if I lost money, but if a branch I grafted broke, I’d be devastated.”

This emotional attachment demonstrates that production continuity is sustained through affective ties, moral commitments, and intergenerational relationships with land and family history, beyond economic benefit alone.

For temporary residents, seasonal return and participation in production are defined not as arbitrary choices but as moral obligations embedded within family history and intergenerational expectations. Rural life is actively reproduced through seasonal participation: seasonal food preparation, subsistence production, and collective family labour concretise how cultural knowledge is transmitted across generations through embodied participation rather than formal instruction (Figure 6). One participant’s remark – “Even if I were to stop, my children would continue” – clearly reflects how production decisions are embedded within a

broader moral framework of intergenerational obligation.



Figure 6: Examples of Rural Life Practices (Source: Photographs Taken During Fieldwork in Ordu, September 2021).

The spatial factor constitutes the practical infrastructure through which economic and cultural commitments are enacted. That approximately 76% of participants own rural dwellings, and that these dwellings are regularly renovated or rebuilt in response to changing needs, demonstrates that attachment to rural space is maintained not only through agricultural land but also through domestic environments and everyday living spaces. Housing transformations – including the addition of upper floors, reconstruction of older buildings, or the construction of new dwellings adjacent to ancestral homes – are carried out primarily to accommodate the seasonal return of temporary residents and the expansion of household size during summer months (Figure 7).

These transformations indicate that rural space is increasingly organised not only for permanent residence, but also to support periodic return and multi-local rural ways of life. Both permanent and temporary residents additionally emphasise clean air, climatic comfort, and distance from urban density as motivations for staying or returning, pointing to rural space as a lived environment valued beyond production as a source of spatial and emotional wellbeing.



Figure 7: Housing Transformations (Source: Photographs Taken During Fieldwork in Ordu, September 2021).

These three factors interact through the permanent-temporary resident relationship rather than operating independently. The economic viability of hazelnut production – even where profit margins remain limited – provides the material basis anchoring seasonal return; intergenerational obligations and the moral weight of inherited land reinforce this basis; and the maintenance of rural dwellings together with the organisation of multi-local households constitute the practical ground through which economic and cultural commitments are enacted. Together, these interlocking mechanisms produce the long-term continuity of the rural cultural landscape.

6. DISCUSSION: RETHINKING RURAL CULTURAL LANDSCAPE RESILIENCE THROUGH MOBILITY, TEMPORAL STRUCTURE, AND RELATIONAL ATTACHMENTS

The literature on the resilience of rural cultural landscapes has long been grounded in the assumption that agricultural production, local knowledge, and cultural transmission can only be sustained through permanently resident rural populations. Within this perspective, rural out-

migration and population decline have largely been associated with demographic ageing, land abandonment, and the erosion of local practices, while the future of rural landscapes has been understood primarily through the preservation or restoration of resident populations (Rescia et al., 2010; ICOMOS-IFLA, 2017; Agnoletti and Santoro, 2022). Findings from the hazelnut landscape of Ordu, however, demonstrate that rural life shaped by hazelnut production continues despite long-term out-migration and a markedly ageing resident population. This suggests that the resilience of rural cultural landscapes depends not only on the presence of a resident population but also on the maintenance of relational attachments to place.

The findings indicate that populations who had migrated out of rural areas continued to spend the summer months in the region, particularly during the hazelnut harvest season, and became re-engaged in agricultural production. This finding is consistent with relational approaches that conceptualise migration not as a severance of population-space relations, but as their reconfiguration (Halfacree, 2006; Woods, 2010; Stockdale, 2016; Coulter et al., 2016). Rather than constituting opposing categories, permanent and temporary residents represent

interdependent positions through which labour, care, and responsibility are reorganised across space and time (Halfacree, 2008; Halfacree and Rivera, 2012; Stockdale, 2016). In this respect, the findings from the Ordu case contribute to an important empirical gap in the literature concerning the role of relational mobilities in the resilience of production-based rural cultural landscapes and offer a new perspective on rural cultural landscape resilience.

The out-migration of working-age populations continues to be a major concern across diverse geographical and social contexts with regard to the continuity of agricultural production and the preservation of rural cultural landscapes. Studies conducted within these debates have demonstrated that the continuity of agricultural production does not depend solely on permanently resident rural populations. Existing research has highlighted the role of place attachment and family ownership relations (Zagaria et al., 2018; Çiftçioğlu, 2024), return migration and agricultural succession processes (McGreevy et al., 2019; Wang et al., 2025), as well as multi-local living arrangements and seasonal participation practices (Aimar, 2022) in sustaining agricultural production. These studies show that out-migration from rural areas does not necessarily imply the complete severance of relationships with agricultural production; rather, production activities may be sustained through reconfigured social, economic, and spatial ties. However, this body of literature has largely focused on post-migration forms of attachment, return practices, and multi-local lifestyles, examining these processes in relation to rural transformation, agricultural sustainability, strategic adaptation, and identity formation. By contrast, the role of temporary residents in the resilience of production-based rural cultural landscapes, and the mechanisms through which this role operates, has received comparatively limited attention.

The Ordu case differs from these studies by demonstrating how relational mobilities and seasonality jointly shape the resilience of production-based rural cultural landscapes. Although seasonality is frequently associated with insecurity and instability in the literature (Ellis, 2000; Naumov et al., 2020), in the Ordu case it functions as a key mechanism that integrates relational mobilities into the production cycle and supports rural cultural landscape resilience. Seasonal returns during the harvest period not only compensate for labour shortages but also facilitate the transmission of knowledge, the reproduction of intergenerational relations, and the continuity of production culture.

Temporary residents therefore do not constitute external sources of support; rather, they form expected and institutionalised components of the annual production cycle. Consequently, production continuity is sustained not despite mobility, but through its seasonal organisation. In this respect, the Ordu case differs structurally from mechanisms observed in parts of Greece and Spain, where labour shortages are compensated through migrant workers (Kasimis, 2008; Oliva, 2010).

The findings also suggest that the distinction between permanent and temporary residents should not be understood as a set of fixed demographic categories. A substantial proportion of temporary residents are former permanent residents who left rural areas during particular phases of their working lives while maintaining land ownership and family responsibilities; at later stages of the life course, particularly after retirement, some return to permanent residence. While transitions between permanence and temporariness in Japan are often shaped by state policies and institutional incentive mechanisms (McGreevy et al., 2019), in the Ordu case these transitions are not solely the outcome of individual life choices but are also shaped by the needs of the production system, family ties, cultural obligations, and a sense of belonging. In this context, hazelnut production functions as a culturally embedded practice through which belonging, memory, and intergenerational responsibility are enacted. Seasonal returns during the harvest period, in turn, become a ritualised form of spatial engagement that reinforces the resilience of the rural cultural landscape (Gustafson, 2001; Cook and Cuervo, 2022).

The Ordu case demonstrates that the resilience of rural cultural landscapes cannot be reduced either to a fixed population threshold or to the presence of a permanent resident population. Here, resilience emerges from the capacity of permanent and temporary residents to reproduce the relationships between agricultural production, cultural practices, and place attachment through relational mobilities, while the continuity of this capacity is sustained through seasonality. In this respect, the study reconceptualises rural cultural landscape resilience as an outcome of relational mobilities and seasonality rather than fixed populations, with implications for rural development and cultural landscape conservation policy.

7. CONCLUSIONS

This study has examined the relational dynamics between permanent and temporary residents in the

hazelnut landscape of Ordu, offering a new perspective on rural cultural landscape resilience that moves beyond resident-centred frameworks. By demonstrating that agricultural production and place-based practices can be sustained despite long-term out-migration and an ageing resident population, the study questions the assumption that rural cultural landscape resilience depends primarily on the presence of a permanent resident population. Its central contribution is to reframe rural cultural landscape resilience as an outcome of relational mobilities that are seasonally organised and reproduced through temporally distributed practices connecting mobile populations to land, production, and care.

Although grounded in the specific context of Ordu, the findings point toward a broader conceptual implication: in rural areas experiencing demographic decline, the continuity of production may depend less on permanent population thresholds than on the quality and continuity of relational attachments maintained with place. The distinction between permanent and temporary residence operates as a fluid continuum shaped by life-course transitions, while seasonality emerges not as a sign of instability but as a key mechanism through which relational mobilities are integrated into production cycles, labour shortages are compensated, and production responsibilities redistributed across space and time. Within this framework, rural spaces are understood not as static sites of abandonment but as living environments repeatedly re-inhabited, revitalised, and sustained through mobility.

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Footnotes

[1] Following Kaptan (1978), settlements are classified as coastal (up to 500 m above sea level) and mountain settlements (above approximately 500 m).

[2] Preliminary interviews included representatives and technical staff from the Provincial Directorate of Agriculture and Forestry, district municipalities, and professional organizations (agricultural chambers).

[3] Approximately 39 hours of interview recordings were obtained across both analytical scales.

Findings should nonetheless be interpreted in light of the study's limitations. Hazelnut cultivation provides a particularly favourable context for the resilience dynamics described here: the crop's capacity to yield with limited annual maintenance, together with its deep embeddedness in regional socio-cultural identity and intergenerational land retention practices, creates conditions that are not equally present across all agricultural systems. Whether similar patterns operate in contexts organised around different crop types, labour regimes, or ownership arrangements remains an empirically open question, and the framework's transferability should be assessed in relation to the specific structural conditions that make such mobility both possible and socially meaningful.

Future research might test the broader applicability of this framework through comparative studies of rural cultural landscapes experiencing demographic decline across different crop types, property systems, and regional migration histories. More broadly, this study contributes to ongoing debates on rural resilience and cultural landscapes by demonstrating the need for frameworks that recognise the interplay between relational mobilities and seasonality as a constitutive dimension of rural resilience, rather than viewing mobility solely as a symptom of its erosion. At a time when rural depopulation, global urbanisation, and wider socio-economic transformations are intensifying pressures on rural production systems, understanding how adaptive capacity can be collectively sustained carries growing analytical and practical importance.

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Appendix A: Rural settlement information								
Rural settlement	District	Altitude (m)	Population (persons)	Winter population (permanent residents, persons)	Summer population (temporary residents, persons)	Total registered households (number)	Resident households (number)	Seasonally active non-resident landholding households (number)
Uğurlu	Ünye	279	600	400	1000	400	300	500
Yenikızılçakese	Ünye	818	500	300	2000	160	70	200
Ortaköy	Ünye	789	300	300	1000	250	150	1000
Tekkiraz	Ünye	523	2500	2000	10000	2000	1000	1000
Nurettin	Ünye	501	700	350	700	500	400	300
Yeniköy	Ünye	419	300	350	600	240	170	60
Kargucak	Fatsa	252	1000	2000	4500	477	328	600
Karşıyaka	Fatsa	519	1200	600	3500	450	225	500
Kayaköy akçakese	Fatsa	280	1000	600	2000	400	300	500
Bekirli	Perşembe	402	300	270	1000	100	90	300
Ramazan	Perşembe	352	450	450	1300	310	250	60

Appendix B: Agricultural Holding and Participant Information											
Agricultural holding code	Participant code	District	Rural settlement	Gender (M: Male, F: Female)	Age	Birthplace	Residential and Migration History in Relation to Ordu	Rural residence status	Place of residence (Temporary residence)	Agricultural products	Agricultural income
A-1	P-1	ÜNYE	UĞURLU	F	77	ORDU	Born and continuously resident in Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Primary
	P-2	ÜNYE	UĞURLU	M	32	İSTANBUL	Permanent residence in Ordu	Temporary	Residence outside Ordu Province (Ankara)	Hazelnut	Secondary
A-2	P-3	ÜNYE	UĞURLU	M	50	ORDU	Permanent residence in Ordu	Temporary	Residence abroad (Germany)	Hazelnut	Secondary
A-3	P-4	ÜNYE	UĞURLU	F	88	TRABZON	In-migration to Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Secondary
A-4	P-5	ÜNYE	UĞURLU	M	69	ORDU	Born and continuously resident in Ordu	Permanent	-	Hazelnut	Primary
A-5	P-6	ÜNYE	TEKKIRAZ	F	29	ORDU	Born and continuously resident in Ordu	Permanent	-	Hazelnut	Secondary
	P-7	ÜNYE	TEKKIRAZ	F	84	ORDU	Born and continuously resident in Ordu	Permanent	-	Hazelnut	Secondary
A-6	P-8	ÜNYE	UĞURLU	F	59	İSTANBUL	In-migration to Ordu	Permanent	-	Hazelnut	Secondary

A-7	P-9	ÜNYE	UĞURLU	F	74	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
	P-10	ÜNYE	UĞURLU	F	46	ORDU	Permanent residence in Ordu	Temporary	Residence outside Ordu Province (Samsun)	Hazelnut	Secondary
A-8	P-11	ÜNYE	UĞURLU	M	64	ORDU	Out-migration and return to Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Secondary
	P-12	ÜNYE	UĞURLU	F	55	ANKARA	In-migration to Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Secondary
A-9	P-13	ÜNYE	TEKKİRAZ	M	72	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Primary
A-10	P-14	ÜNYE	UĞURLU	M	29	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Secondary
A-11	P-15	ÜNYE	DİZDAR	M	73	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Primary
A-12	P-16	ÜNYE	VELİBAYR AKTAR	M	58	ORDU	Out-migration and return to Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Secondary
	P-17	ÜNYE	VELİBAYR AKTAR	F	55	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Secondary
	P-18	ÜNYE	VELİBAYR AKTAR	M	57	ORDU	Out-migration and return to Ordu	Permanent	-	Hazelnut	Secondary
A-13	P-19	ÜNYE	İNKUR	M	51	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Primary

A-21	P-30	FATSA	HIDIRBEYLİ	F	51	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Primary
A-20	P-29	FATSA	KARŞIYAKA	M	60	ORDU	Out-migration and return to Ordu	Permanent	-	Hazelnut	Primary
A-19	P-28	FATSA	KARGUCAK	M	53	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Secondary
A-18	P-27	FATSA	KARGUCAK	M	61	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Primary
A-17	P-26	FATSA	KARGUCAK	M	43	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Primary
A-16	P-25	FATSA	KABAKDAĞ	M	59	ANKARA	In-migration to Ordu	Permanent	-	Hazelnut	Secondary
A-15	P-24	ÜNİYE	DİZDAR	M	59	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Ünye)	Hazelnut	Primary
	P-23	ÜNİYE	DİZDAR	F	72	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Secondary
A-14	P-22	ÜNİYE	DİZDAR	F	51	ORDU	Permanent residence in Ordu	Temporary	Residence outside Ordu Province (Izmit)	Hazelnut	Secondary
	P-21	ÜNİYE	İNKUR	M	81	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Primary
	P-20	ÜNİYE	İNKUR	F	48	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Primary

A-22	P-31	FATSA	KARATAŞ	F	71	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Primary
A-23	P-32	FATSA	YASSITAŞ	M	55	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Secondary
A-24	P-33	FATSA	SEFAKÖY	M	36	ORDU	Out-migration and return to Ordu	Permanent	-	Hazelnut	Primary
A-25	P-34	FATSA	YASSITAŞ/ GAGA	M	78	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Primary
	P-35	FATSA	YASSITAŞ/ GAGA	F	75	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Primary
A-26	P-36	FATSA	YASSITAŞ	F	72	İSTANBUL	In-migration to Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Secondary
A-27	P-37	FATSA	YASSITAŞ	M	77	ORDU	Out-migration and return to Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Secondary
	P-38	FATSA	YASSITAŞ	F	67	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Secondary
A-28	P-39	FATSA	KAVRAZ	M	59	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Primary
A-29	P-40	FATSA	KAVRAZ	M	56	ORDU	Out-migration and return to Ordu	Permanent	-	Hazelnut	Primary
A-30	P-41	FATSA	KAVRAZ	M	56	ORDU	Out-migration and return to Ordu	Temporary	Urban residence within Ordu Province (Fatsa)	Hazelnut	Primary

A-31	P-42	FATSA	KAVRAZ	M	49	ORDU	Out-migration and return to Ordu	Permanent		Hazelnut-Kiwi	Primary
A-32	P-43	PERŞEMBE	RAMAZAN	F	56	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
	P-44	PERŞEMBE	RAMAZAN	F	81	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
	P-45	PERŞEMBE	RAMAZAN	M	52	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
A-33	P-46	PERŞEMBE	RAMAZAN	M	54	ORDU	Out-migration and return to Ordu	Permanent		Hazelnut	Primary
	P-47	PERŞEMBE	RAMAZAN	F	55	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
A-34	P-48	PERŞEMBE	RAMAZAN	F	52	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Secondary
A-35	P-49	PERŞEMBE	RAMAZAN	F	61	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
A-36	P-50	PERŞEMBE	RAMAZAN	M	70	ORDU	Permanent residence in Ordu	Temporary	Residence outside Ordu Province (İstanbul)	Hazelnut-Kiwi	Secondary
A-37	P-51	PERŞEMBE	YENİKÖY	M	67	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
A-38	P-52	PERŞEMBE	BEKİRLİ	M	56	ORDU	Out-migration and return to Ordu	Permanent		Hazelnut	Primary

A-39	P-53	PERŞEMBE	PERŞEMBE	BEKİRLİ	M	52	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
A-40	P-54	PERŞEMBE	PERŞEMBE	BABALI	M	40	ORDU	Out-migration and return to Ordu	Permanent		Hazelnut	Secondary
A-41	P-55	PERŞEMBE	PERŞEMBE	SARAY	F	47	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Ordu city centre)	Hazelnut	Secondary
A-42	P-56	PERŞEMBE	PERŞEMBE	YALI	M	68	ORDU	Born and continuous resident in Ordu	Temporary	Urban residence within Ordu Province (Perşembe)	Hazelnut	Secondary
A-43	P-57	PERŞEMBE	PERŞEMBE	EFİRLİ	M	62	ORDU	Out-migration and return to Ordu	Permanent		Hazelnut-Kiwi	Secondary
A-44	P-58	PERŞEMBE	PERŞEMBE	EFİRLİ	F	57	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
A-45	P-59	PERŞEMBE	PERŞEMBE	EFİRLİ	M	58	ORDU	Out-migration and return to Ordu	Permanent		Hazelnut	Primary
A-46	P-60	PERŞEMBE	PERŞEMBE	KIRLI	M	75	ORDU	Out-migration and return to Ordu	Temporary	Urban residence within Ordu Province (Ordu city centre)	Hazelnut	Secondary
A-47	P-61	PERŞEMBE	PERŞEMBE	KIRLI	M	46	ORDU	Out-migration and return to Ordu	Permanent		Hazelnut	Primary
A-48	P-62	PERŞEMBE	PERŞEMBE	KIRLI	F	31	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Primary
A-49	P-63	PERŞEMBE	PERŞEMBE	TEPECİK	M	63	ORDU	Born and continuous resident in Ordu	Permanent		Hazelnut	Secondary

A-49	P-64	PERŞEMBE	TEPECİK	M	57	ORDU	Born and continuous resident in Ordu	Permanent	-	Hazelnut	Secondary
A-50	P-65	PERŞEMBE	YUMRUTA Ş	F	66	ORDU	Out-migration and return to Ordu	Permanent	-	Hazelnut	Secondary