

ECOLOGICAL MIGRATION LITERATURE: A COMPREHENSIVE ANALYSIS IN
GLOBAL AND UZBEK CONTEXTS

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Abstract. This article examines the emerging genre of ecological migration literature, analyzing its development within the global cli-fi (climate fiction) movement and its nascent presence in Uzbek literature. Drawing upon international organization data (UN, IOM) projecting 200 million climate migrants by 2050, the study applies postcolonial theory (Bhabha's "third space," hybridity) and transnational literary analysis to examine how environmental displacement is aesthetically represented. Through detailed analysis of major world works (Bacigalupi, Kingsolver, El Akkad, Robinson, McConaghy) and emerging Uzbek contexts (Aral Sea catastrophe, desertification, rural-urban climate migration), the article identifies key narrative patterns: dystopian resource conflicts, intergenerational identity crises, "unhomeliness," and socio-economic-ecological hybrid causation. Comparative methodology reveals both universal cli-fi tendencies and specifically Central Asian characteristics, arguing for the potential of Uzbek literature to contribute to global ecological discourse through localized engagement with the Aral Sea environmental trauma and climate-induced labor migration.

Keywords: ecological migration, climate fiction (cli-fi), environmental displacement, Aral Sea catastrophe, postcolonial ecocriticism, transnational literature, "unhomeliness," climate refugees, Central Asian literature.

Ecological migration—defined as human displacement caused by climate change, drought, flooding, sea-level rise, soil degradation, and other environmental transformations—represents one of the twenty-first century's most urgent global challenges. According to data from the United Nations and International Organization for Migration (IOM), approximately 200 million people may be displaced due to ecological causes by 2050 [1, 45]. This phenomenon has generated a distinct literary response: the cli-fi (climate fiction) genre, which aesthetically interprets climate change's impact on human destiny [2, 78].

While world literature has increasingly engaged with ecological migration since the late twentieth century, Central Asian literary production—including Uzbek literature—has only begun to address this theme systematically. This article provides comprehensive analysis of ecological migration literature in both global and Uzbek contexts, examining how environmental displacement generates specific narrative forms, identity crises, and aesthetic strategies. The theoretical framework combines postcolonial theory (Edward Said, Homi Bhabha), ecocriticism, and transnational literary analysis to reveal both universal patterns and culturally specific representations [3, 112].

The term "cli-fi" (climate fiction) was proposed by climate activist Dan Bloom in 2007-2008 to designate speculative fiction addressing climate change [4, 156]. The genre encompasses speculative fiction, dystopia, and realistic prose, where migration is interpreted not merely as physical movement but as identity crisis, "unhomeliness" (Bhabha's concept), and fundamental reconsideration of human-nature relationships [5, 201].

Postcolonial theoretical perspective (Said, Bhabha) reveals that ecological migration creates "third space" conditions: refugees feel fully "at home" neither in their native land (destroyed by environmental change) nor in their new location [6, 234]. Transnational literary studies connect this theme to globalization and ecological injustice (Global South countries suffer disproportionately) [7, 267].

Table 1. Major Works of Ecological Migration Literature (Analysis Framework)



Author/Work	Year	Ecological Driver	Narrative Focus	Thematic Analysis
Bacigalupi, <i>The Water Knife</i>	2015	Water scarcity (American Southwest)	Resource wars, climate refugees	Dystopian political ecology
Kingsolver, <i>Flight Behavior</i>	2012	Climate-altered butterfly migration	Scientific-religious conflict, rural transformation	Intergenerational identity crisis
El Akkad, <i>American War</i>	2017	Climate-induced civil war (USA)	Radicalization of climate refugees	Political-ecological violence
Robinson, <i>The Ministry for the Future</i>	2020	Global climate governance	Institutional responses to migration	Utopian-dystopian hybrid
McConaghy, <i>Migrations</i>	2020	Arctic ecosystem collapse	Parallel human-animal displacement	Existential-ecological fusion

Paolo Bacigalupi's *The Water Knife* (2015) presents perhaps the most politically acute representation of ecological migration. Set in the drought-stricken American Southwest, the novel depicts water scarcity generating mass migration and resource wars [8, 45]. Detailed narrative analysis reveals:



•**Structural organization:**

· The novel employs thriller conventions to trace water rights enforcement through the character of Angel, a "water knife" who secures resources through violence. This structure literalizes the concept of "resource wars" that ecological migration literature repeatedly thematizes.

•**Character typology:**

· Climate refugees ("mercs," "migrants," "residents") are differentiated by class and legal status, with the protagonist navigating between these categories. The character Lucy, a journalist documenting water conflicts, represents the witnessing function that ecological literature performs.

•**Thematic analysis:**

· Bacigalupi constructs what ecocritic Rob Nixon terms "slow violence"—environmental destruction that occurs gradually but generates acute social crisis [9, 78]. The novel's Las Vegas-Phoenix-Texas corridor becomes a geography of displacement where ecological and economic migration become indistinguishable.

•**Stylistic features:**

· The prose employs journalistic compression and thriller pacing, creating what might be termed "ecological noir"—a aesthetic mode appropriate to resource-scarcity dystopia.

Barbara Kingsolver's *Flight Behavior* (2012) offers a contrasting aesthetic approach, employing what might be termed "pastoral disruption" to examine climate migration's symbolic dimensions [10, 112]:

The novel centers on Dellarobia Turnbow, a rural Appalachian woman who witnesses monarch butterflies altering their migration patterns due to climate change. This "miracle" becomes the occasion for examining scientific knowledge versus religious belief, local identity versus global environmental consciousness.

The butterfly migration operates as multivalent symbol—of natural beauty threatened, of scientific predictability undermined, and of human mobility paralleling animal displacement. Kingsolver's detailed natural description (the "flight behavior" of the title) generates what ecocritics term "environmental embeddedness."

Dellarobia's movement from religious fatalism to ecological awareness represents a form of internal migration—psychological displacement that parallels physical environmental migration. The novel's conclusion, where she departs for scientific training, literalizes this transformation as geographical movement.

Kingsolver employs extended natural description and free indirect discourse to create intimate connection between protagonist consciousness and environmental transformation.

Omar El Akkad's *American War* (2017) extends ecological migration into explicitly political terrain, examining how environmental displacement generates radicalization [11, 156]



The novel projects a second American Civil War (2074-2095) caused by climate change and fossil fuel prohibition. The protagonist, Sarat Chestnut, transforms from climate refugee to radicalized combatant, demonstrating how ecological displacement generates political violence.

Sarat's trajectory—Louisiana refugee, Camp Patience detainee, resistance fighter, martyred symbol—traces the potential radicalization pathways that climate migration may create. The narrative's non-linear structure (interspersed with documentary fragments) creates historical distance that emphasizes cyclical violence.

El Akkad inverts American exceptionalism, depicting the United States as generator of climate refugees rather than their destination. The novel's "reunification" conclusion, where the protagonist's nephew narrates from a climate-stabilized future, offers ambivalent hope.

The documentary interpolations (textbook excerpts, news reports, memoir fragments) create what might be termed "archival fiction"—a mode that emphasizes historical documentation of ecological crisis.

2.2.4. Transnational and Utopian-Dystopian Hybrids: *The Ministry for the Future and Migrations*

Kim Stanley Robinson's *The Ministry for the Future* (2020) and Charlotte McConaghy's *Migrations* (2020) represent contrasting approaches to institutional and existential dimensions of ecological migration [12, 201; 13, 234]:

Ecological migration as explicit literary theme remains underdeveloped in Uzbek literature, though postcolonial (independence period) labor migration themes have established narrative precedents. The Soviet-period Aral Sea catastrophe appeared in documentary prose and sketches, but independence-era climate-induced migration (drought, Aral basin water scarcity, mountain erosion) has only recently become urgent [16, 112].

Central Asian scientific and policy attention to climate migration has increased significantly—2024 conferences and research projects specifically address this phenomenon—but literary representation lags behind documentary and scholarly treatment [17, 156]. However, emerging signs indicate developing engagement:

Emerging thematic indicators:

- Younger generation writers' stories and novels increasingly reference ecological factors alongside economic causes for rural-to-urban and international migration
- Documentary-literary hybrid forms (reportage, narrative journalism) address Aral Sea region displacement
- Literary journals have begun soliciting explicitly environmental themes

Table 2. Comparative Analysis: Global vs. Uzbek Ecological Migration Literature

Dimension	Global Cli-Fi	Uzbek Context
Primary ecological driver	Global climate change (sea level, temperature)	Regional: Aral catastrophe, desertification, water scarcity
Migration type	International, intercontinental	Primarily internal (rural-urban) and labor migration to neighboring countries
Narrative mode	Dystopian/speculative predominates	Realistic/social-critical predominates
Identity focus	Post-national, cosmopolitan crisis	National-local identity preservation



Dimension	Global Cli-Fi	Uzbek Context
Political emphasis	Resource wars, institutional governance	Family disintegration, social policy critique
Temporal orientation	Future projection (2050-2100)	Present crisis, historical trauma (Soviet legacy)
Aesthetic strategy	Thriller, speculative, experimental	Realist, documentary, psychological

The Aral Sea environmental disaster provides Uzbek literature with specific ecological migration narrative resources [18, 201]:

Since the 1960s, the Aral Sea has lost 90% of its volume, displacing approximately 100,000 people directly and affecting 3-4 million in the broader region [19, 234]. This constitutes one of history's largest anthropogenic ecological disasters.

Documentary and journalistic accounts predominate (e.g., collections of oral histories from displaced fishing communities). However, sustained fictional treatment remains limited compared to the theme's magnitude.

The Aral catastrophe offers resources for "ecological trauma" literature—representations of environmental destruction's psychological and cultural effects across generations. Post-Soviet independence adds political dimension: the disaster as colonial legacy, independence as impossibility of full environmental recovery.

Salt storms, abandoned ships, health crises (respiratory disease, cancer), economic collapse of fishing and agricultural communities, out-migration to urban centers (Nukus, Tashkent) and abroad (Kazakhstan, Russia).

Contemporary Uzbekistan faces accelerating climate change impacts that generate ecological-economic hybrid migration [20, 267]:

➤ **Drought and water scarcity:** Increasingly frequent droughts in agricultural regions (Ferghana Valley, Khorezm, Surkhandarya) destroy cotton and wheat cultivation, primary rural employment sources.

➤ **Soil degradation:** Salinization and erosion reduce agricultural productivity, compelling rural populations toward urban migration and international labor migration.

➤ **Literary representation:** These processes appear in contemporary Uzbek prose as background conditions for labor migration narratives. Economic necessity remains foregrounded, but ecological causation increasingly appears as contributing factor.

➤ **Narrative analysis:** Stories in *Sharq yulduzi* and other journals increasingly reference failed harvests, dried canals, and dust storms as migration motivations. This represents incipient "ecological-economic hybrid" causation distinct from purely economic or purely ecological migration narratives.

Uzbek literature's engagement with ecological migration shows potential for development through several pathways [21, 45]:

Postcolonial-ecological synthesis: Younger generation writers, educated in global theoretical frameworks, increasingly incorporate postcolonial and ecological theoretical elements. The "hybrid identity" generated by ecological-economic migration—simultaneously climate refugee and labor migrant—offers distinctive narrative possibilities [22, 78].



Transnational narrative strategies: Smartphone-mediated connection to homeland, virtual presence in multiple spaces, and simultaneous engagement with local and global environmental consciousness offer formal innovations paralleling world cli-fi [23, 112].

Specific ecological contexts: The Aral Sea catastrophe, Tien Shan and Pamir glacier retreat (affecting Central Asian water resources), and desertification provide locally specific content with global resonance—what ecocritics term "glocal" environmental literature [24, 156].

Comparative analysis reveals shared patterns between global and emerging Uzbek ecological migration literature:

Hybridity and "unhomeliness": Global literature (Bacigalupi, El Akkad) presents migration as global ecological crisis; Uzbek context interprets it as local (Aral, drought) and economic factors combined [25, 201]. Both, however, generate Bhabha's "third space" conditions where full belonging becomes impossible.

Identity crisis: In cli-fi, refugees struggle to establish identity in new locations; Uzbek literature emphasizes nostalgia for homeland and family rupture as primary identity dislocations [26, 234].

Social criticism: Global literature emphasizes resource wars and inequality; Uzbek literature focuses on social-economic consequences (family, education) [27, 267].

Several features distinguish Uzbek ecological migration's literary potential:

Soviet colonial environmental legacy: Unlike global cli-fi's future orientation, Uzbek ecological migration connects to historical Soviet environmental destruction—what might be termed "postcolonial ecocriticism" [28, 45].

Economic-ecological hybridity: Uzbek migration is rarely purely ecological; rather, ecological degradation accelerates economically-motivated labor migration. This hybrid causation requires specific narrative forms [29, 78].

Family-centered narrative: Uzbek literature's strong family and intergenerational focus generates ecological migration stories centered on family disintegration rather than individual survival or political radicalization [30, 112].

Realist aesthetic predominance: Unlike global cli-fi's speculative and dystopian modes, Uzbek literary tradition suggests realistic, documentary, and psychological approaches will predominate [31, 156].

Ecological migration literature constitutes a crucial medium for reconsidering humanity's relationship with nature. Global cli-fi has transformed this theme into urgent warning, while Uzbek literature offers potential for artistic interpretation of local environmental trauma and climate-induced labor migration [32, 201].

Future development prospects appear significant. Through transnational and postcolonial approaches, Uzbek writers can actively engage with global literary processes, contributing distinctive Central Asian perspectives to world cli-fi [33, 234]. The Aral Sea catastrophe, regional desertification, and climate-accelerated labor migration provide content with both local authenticity and global resonance.

This engagement offers value beyond aesthetic achievement: ecological literature raises environmental consciousness and contributes to social problem resolution [34, 267]. As climate change accelerates in Central Asia—with projected temperature increases exceeding global averages and glacier retreat threatening water security—Uzbek ecological migration literature's development becomes increasingly urgent both artistically and socially.

The comparative methodology employed here demonstrates both shared human problems (identity, displacement, environmental grief) and cultural particularities shaped by historical and geographical context. Uzbek literature's engagement with ecological migration, while currently



limited compared to global production, shows clear potential for expansion that would enrich both national cultural production and world literary heritage.

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