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Women, Natural Resources and Human Health in Rural Communities: A Systematic Literature Review

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ABSTRACT: For women in rural settings, dependency on natural resources often plays a role in sustaining livelihood, subsistence, and social welfare; however, such dependencies can sometimes come with environmental, occupational, and health risks. The present systematic review of literature examines the available evidence on the interactions between women, natural resource dependency, livelihoods, and human health in rural settings. A systematic search using Google Scholar, Scopus, Web of Science, and PubMed were performed based on the framework of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020). In total, out of 1,959 papers, 30 fulfilled the inclusion criteria. Papers that investigated women/gender, natural resources, rural settings, and human health/wellbeing were selected. Literature on women or gender, natural resources, rural populations and health or well-being was identified, critically appraised and synthesized. This review highlights the major natural resources that have been studied in relation to the lives of women, health outcomes experienced by women, their environmental and occupational exposures, and the socio-economic determinants of these relationships. Emphasis is placed on studies conducted in developing countries, as well as the relevance of the findings to rural India, especially with respect to Odisha, where specific research gaps have been identified. The review illustrates how women's reliance on natural resources can both provide livelihood opportunities and act as a determinant of health and well-being. Natural resources serve both as sources of nutrition, income and medicine, and as a means of exposure to smoke, musculoskeletal problems, pesticides and psychosocial stresses. These conclusions help in establishing an integrated view on gender, natural resource management, and health in the rural areas and outline some of the most crucial research priorities in this area in the future.

1. INTRODUCTION

People living in rural areas in the Global South rely largely on forested land, water sources, agricultural lands, fisheries, wetlands, medicinal plants, and other resources provided by ecosystems for sustenance. Women constitute 41 percent of the total global agricultural labor force and their representation is around 70 percent in South Asia and sub-Saharan Africa (Sancho & Ndiaye, 2026). The reliance on these resources is not gender neutral. Women provide about 43 percent of agricultural labor but own less than 15 percent of all agricultural land holders globally (Kumar, 2025).

Women's interactions with natural resources are marked by a unique dual approach whereby women are primary consumers and managers of household natural resources, yet are mostly left out of formal mechanisms of resource governance and decision-making processes. A literature review involving 135 papers on the topic of gender and forest resources in developing nations brought together findings regarding the gender division of labor, resource access and utilization, and various factors influencing gender gaps (Bitzer et al., 2024). Within the context of forestry, women engage in four types of occupation including collecting, paid work, managing and production. As collectors, women engage in collecting firewood, fodder, grass, bamboo, cane, leaves, gum, wax, dye, resin, nuts, wild fruits, honey, and medicines. In addition to relying on forest lands to harvest forest products, the women are hired as unskilled laborers by the forest department and contractors. In addition to being producers in farm forestry programs, women were expected to take part in community forestation initiatives. Gathering, wage work, administration, and production are the four roles that women played in forestry (Mesta, 2021).

These health impacts of resource dependency are twofold. The first one being the positives in terms of access to nutrition by way of wild foods and medicinal plants, income, and physical activity via resource procurement. However, there are risks, too. The resource collection work done by women subjects them to a particular form of environmental and occupational risk factors. Indoor air pollution due to burning of solid biomass fuels is an issue where again, as women spend most of their time cooking, the impact is greater on them. For example, in a study conducted in West Bengal, India, it was observed that there are emissions of PM_{2.5} ranging between 524-565 µg/m³ and CO as high as 12.5 ppm causing respiratory and cardiovascular problems (Bisui et al., 2024). There is an association between carrying of water and musculoskeletal issues. A scoping review carried out in Sub-Saharan Africa on the issue of carrying of water and musculoskeletal health showed that chronic and acute water carrying had a bidirectional relation with musculoskeletal pain (Meeuwisse et al., 2024). Scholarly literature on these associations has used distinct disciplinary frameworks to investigate them. Literature has considered women and livelihoods; natural resource use and health or environmental exposure and rural health but has not yet combined gender, natural resource dependency, livelihood activities, environmental exposure, and health into one analysis. This has created an intellectual and policy-relevant gap. The current review will bridge this gap by undertaking a synthesis of literature where women's natural resource dependency is viewed as the key determinant of health and well-being in rural communities. This review is particularly applicable to rural India and in particular to Odisha, where a significant number of tribal people exist, along with vast forest coverage and diversified natural resource systems. The tribal communities of Odisha rely a lot on forests for subsistence. Studies conducted through participatory rural activities involving 150 women in four districts of Odisha, namely Koraput, Kendrapara, Keonjhar and Bargarh found that reduced rainfall, water shortages and climatic changes cause extra workload among women, disturb their livelihoods and deteriorate family nutritional status (Mohanty et al., 2026). In Keonjhar and Bargarh, women complained about having to walk longer distances to collect water, and men left in case of crop failures, thus leaving all the work to the women. According to one of the studies conducted among Paudi Bhuyan tribals, 64 percent of the women were found anemic, and the tribe relied greatly on forests for subsistence and slash-and-burn agriculture (Mayank Bhusan Pani, 2026). Thus, the purpose of this systematic literature review is to examine the available literature on the association between women, natural resource dependence, livelihood and human health in rural communities, while highlighting any research gap in relation to rural India, especially Odisha.

2. LITERATURE REVIEW

2.1 Women and Natural Resource Dependence

It can be seen from the literature that there is a great extent to which the relationship of women with natural resources is multifaceted. As per a systematic literature review on gender and forest resources in low- and middle-income countries, there are complicated gender norms that both facilitate and inhibit the livelihood of women in terms of accessing, using and controlling forest resources (Bitzer et al., 2024). Women interact with the forest in different spheres of life: food, fodder, firewood, and herbal medicines. Their dependency on forests goes beyond economic reasons as their cultural and social reproduction is associated with these activities. Studies conducted in India prove that the majority of the agricultural labor force consists of women, around 54 percent in the state of Odisha. However, they depend on these resources in the context of land ownership. Women own less than 15 percent of the agricultural land owners in the world (Kumar, 2025).

2.2 Natural Resources and Health: Positives and Negatives

There is a two-sided relation of natural resources and health described by the literature. From the positive point of view, forest products act as a cheap and nutritious source of nutrition to cope with food insecurity for poor families. Undernutrition and

anemia study conducted among the tribal group Bonda in Odisha proposed a need to reinforce the sustainable use and value of non-timber forest products (NTFPs) to ensure dietary diversification and livelihood security of forest-based communities. (Li et al., 2026). In terms of risks, there are numerous occupational and environmental health risks reported in the literature. Musculoskeletal problems related to water and fuelwood gathering are regularly reported. A cross-sectional study involving communities in Legambo district, Ethiopia, showed that the prevalence of symptoms of musculoskeletal disorder in the last 12 months was 72.5 percent, with symptoms significantly high in women carrying water from longer distances (Berihun et al., 2025). Respiratory problems occur due to household air pollution, with women disproportionately exposed to the smoke from burning biomass. The study in Mysuru, India, found that there were dose-related effects of biomass smoke exposure resulting in chronic bronchitis, COPD, and reduced lung function (Mahesh et al., 2026). In terms of reproductive health risks, the literature reports menstrual anomalies due to pesticide exposure.

2.3 Environmental Change and Women's Health

More and more research is devoted to how environmental degradation and climate change affect the health of women who rely on natural resources. Climate change affects the way in which land is used, changing rainfall and heating up the atmosphere, which results in a depletion of natural resources and interference with the hydrological cycle. Such countries are especially susceptible to the effects of climate change because of geography and climate of the region.

According to a study conducted in Odisha, climate change makes men leave their homes and increases women's workload physically and emotionally. Women reported spending more time looking for water and food, which had a direct influence on their nutritional health. Coastal Kendrapara women reported that recurrent cyclones, floods and intrusion of salty waters had affected their agriculture and fisheries with people reporting an increase in the number of water-borne diseases and heat stroke (Mohanty et al., 2026).

2.4 Mental Health and Psychosocial Well-being

Mental well-being in terms of women's dependency on natural resources is another important dimension that has been poorly researched. A study examining the impacts of natural resource degradation on health of rural women reported that women were highly committed to their work despite environmental degradation, tied down with household chores, leading to stress both physically and mentally (Saeed et al., 2021). Mental well-being of Sundarbans women involved in hazardous occupation such as crab fishery, honey collection, wood cutting has been inadequately researched in terms of how their mental well-being is impacted by the interplay between gender, culture, poverty and ecology (Bose & Sarkar, 2026).

2.5 Women's Empowerment and Natural Resource Management

Further, literature shows how empowerment of women in natural resource management contributes to good health and well-being through certain pathways. For instance, a study that focused on empowering women to improve health in Sub-Saharan Africa found that the key factor behind good health outcomes due to energy poverty was gender equality. (Li et al., 2026). In India, the 'Grow Your Own Food' project positively affected the health and nutrition of tribal and Dalit women, as over 5,000 tribal women received training in permaculture and ecovillage design education (Women and Gender Constituency, 2025). This demonstrates that when women are empowered to manage natural resource value chains, economic and health benefits can be achieved together.

3. RESEARCH OBJECTIVES

1. To examine the existing evidence on the relationship between women's dependence on natural resources and human health in rural communities.
 2. To identify the types of natural resources and resource-dependent livelihoods most frequently associated with women's health and well-being.
 3. To analyse the physical, mental, occupational, environmental and socioeconomic health outcomes reported among women in resource-dependent rural communities.
 4. To identify research gaps and policy implications for rural communities in India, particularly Odisha.
- These objectives correspond to the following research questions:

RQ1: What is the existing evidence on the relationship between women's dependence on natural resources and human health in rural communities?

RQ2: What types of natural resources and resource-dependent livelihoods are most frequently associated with women's health and well-being?

RQ3: What physical, mental, occupational, environmental and socioeconomic health outcomes are reported among women in resource-dependent rural communities?

RQ4: What research gaps and policy implications emerge for rural communities in India, particularly Odisha?

4. MATERIALS AND METHODS

4.1 Review Protocol

The current systematic literature review was done according to the guidelines provided by the PRISMA 2020 statement which aims at providing an update on the guidelines that need to be followed for complete and accurate reporting of systematic reviews. PRISMA 2020 contains a 27-item checklist that indicates what should be contained in the introduction, methodology, results and discussion sections of the systematic review report and a flow diagram showing the flow of information in the different stages of a systematic review (Page et al., 2021).

4.2 Eligibility criteria

Table1. Inclusion and exclusion criteria

Criterion	Inclusion	Exclusion
Population	Women, females or gender-related rural populations	Purely urban populations
Setting	Rural, village, indigenous, tribal or resource-dependent communities	Studies unrelated to women or gender
Exposure/context	Natural resources, ecosystem resources	Studies about natural products without human-health or community context
Outcomes	Human health, well-being, quality of life, nutrition, occupational or environmental health	Laboratory-only studies; animal studies
Study type	Peer-reviewed empirical studies and relevant reviews	Conference abstracts without full papers; editorials; commentaries
Language	English	Non-English publications
Publication period	2015–2025	—
Databases	Google Scholar, Scopus, Web of Science, PubMed and supplementary sources	—

4.3 Search strategy

The search strategy was built around the four core concepts: women/gender, natural resources, health and rural community. Below is the modified search string used for Scopus in the fields:

(women OR woman OR female* OR gender)

AND

("natural resource*" OR forest* OR "non-timber forest product" OR NTFP OR "water resource*" OR wetland OR mangrove* OR biodiversity OR "medicinal plant" OR fisheries OR "agricultural land")

AND

("human health" OR health OR "health outcome" OR wellbeing OR "well-being" OR "quality of life" OR "mental health" OR "physical health" OR nutrition OR "occupational health" OR "environmental health")

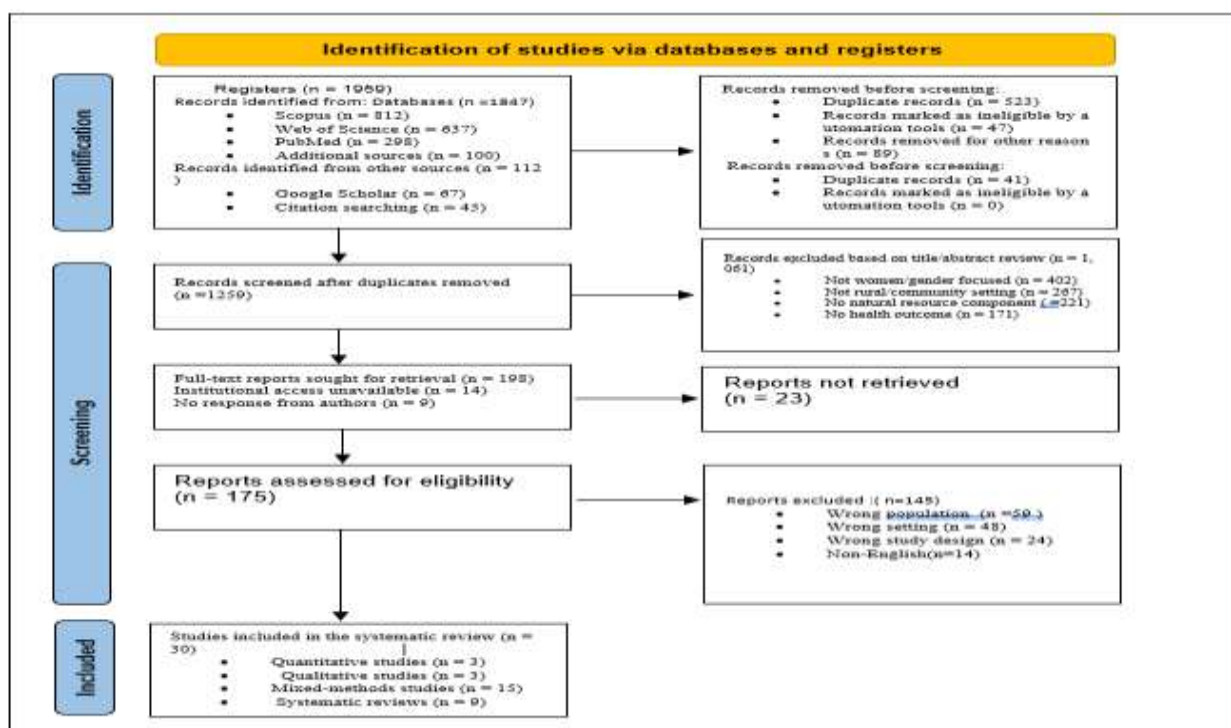
AND

(rural OR village OR community OR "rural community" OR indigenous OR tribal)

The same search strategies were developed for Web of Science and PubMed. A search was conducted for context of India/Odisha separately using the above search string along with ("India" OR "Odisha").

4.4 Flow diagram of PRISMA 2020

PRISMA 2020 flow diagram shows the flow of information at various stages of a systematic review. It shows the numbers of records that were identified, included and excluded and the reasons for exclusion. The flow diagram uses the conventional four-step framework: Identification, Screening, Eligibility, and Included (Page et al., 2021).



Source: Author compilation with the reference of Page et. al (2021) of PRISMA 2020

5. RESULTS AND DISCUSSION

5.1 Characteristics of the included studies

The systematic search returned 1,847 references from databases and 112 references from additional sources. Out of these, 1,259 references were screened by using titles and abstracts of which 1,061 were not eligible to proceed further. Out of 198 full text articles which were searched to retrieve, 23 could not be retrieved. Of the 175 full text articles which were assessed, 145 were found not to meet inclusion criteria for various reasons such as wrong population (n=59), wrong setting (n=48), wrong study design (n=24) and non-English language (n=14). The final sample consisted of 30 studies which met all inclusion criteria.

Table -2-Characteristics of Included Studies (n = 30)

Author(s) and Year	Country	Study Design	Natural Resource Focus	Key Health Outcome(s)
Adam et al. (2024)	Bangladesh	Scoping review	Aquatic Resources	Food
Adhikari et al. (2023)	Nepal	Cross-sectional	Water, fuelwood	Health and Wellbeing Health problems

Agarwal (2018)	India	Qualitative	Forests, land	Empowerment, well-being
Ahmed et al. (2020)	Bangladesh	Cross-sectional	Water, fisheries	Nutrition, waterborne disease
Anjum et al. (2025)	Pakistan, India	Systematic review	Multiple resources	Gendered health vulnerability
Barik et al. (2026)	India (Odisha)	Cross-sectional	Forest	Anemia
Berihun et al. (2025)	Ethiopia	Cross-sectional	Water	Musculoskeletal disorders
Bisui et al. (2024)	India (West Bengal)	Cross-sectional	Biomass fuel	Respiratory health
Bitzer et al. (2024)	LMICs	Systematic review	Forest resources	Gender norms, livelihoods
Borah (2015)	India(Meghalaya)	Quantitative	Forests	Cardiovascular stress and Musculoskeletal health
Chowdhury et al. (2022)	India (Odisha)	Participatory	Forest-based economy	Empowerment, health
Chowdhurym et al. (2016)	India (Sundarbans)	Mixed-methods	Forests, fisheries	Mental health
Geere et al. (2024)	Sub-Saharan Africa	Scoping review	Water	Musculoskeletal health
Ghosh et al. (2024)	India (Odisha)	Mixed-methods	NTFPs	Dietary diversity
Gosling et al. (2024)	LMICs	Systematic review	Forest, wetlands	Livelihoods
Haque et al. (2021)	Bangladesh	Cross-sectional	Water, agriculture	Maternal nutrition
Harridhil et al. (2025)	Global	Narrative review	Climate, resources	Multiple health outcomes
Ihalainen et al. (2020)	Sub-Saharan Africa	Systematic review	Charcoal, forests	Gender equity
Kaur & Singh (2023)	India (Punjab)	Cross-sectional	Pesticides	Reproductive health
Kumar et al. (2025)	India	Review	Pesticides	Reproductive health
Laxmi et al. (2003)	India(Rajasthan)	Quantitative	Bio fuels	Respiratory issues
Meeuwisse et al. (2024)	Sub-Saharan Africa	Scoping review	Water	Musculoskeletal health
Mitra and Rao (2019)	India	Mixed-methods	Water	Women's health
Mitra et al. (2022)	India(West Bengal)	Quantitative	Biomass fuel	Cardiovascular Health Risk
Rahman and Siu (2026)	Bangladesh	Qualitative	Climate vulnerability, Food insecurity	Psychosocial stress
Rahman et al. (2020)	Bangladesh	Mixed-methods	Water, agriculture	Maternal health
Sahu et al. (2019)	India (Eastern)	Cross-sectional	Sal leaves (NTFP)	Musculoskeletal disorders
Shrestha and Shrestha (2005)	Nepal	Cross-sectional	Biomass fuel	Respiratory health

Sivalogan et al (2024)	India (Odisha)	mixed-methods	Rural communities	self-efficacy, cultivation, affordability	backyard/homestead market distance/
Strusi and Balestri (2025)	Global South	Mixed-methods	Land, forests	Food security, nutrition	

Source: Author's compilation based on secondary data

5.2 Geographic Distribution

Literature was drawn from South Asia (India, Nepal, Pakistan, Bangladesh), Sub-Saharan Africa (Kenya, Uganda, Zimbabwe, Zambia), Southeast Asia (Indonesia, Vietnam) and Latin America. Studies from India were quite prominent, covering Odisha, West Bengal, Karnataka, Punjab and other states. Of particular interest was the case of Odisha due to the presence of sizeable tribal populations in India, forest cover and natural resource systems.

Thematic analysis has been used for synthesizing the findings from included studies, which has been organized under six main themes. Each theme reflects different aspects of the connection between women's dependence on natural resources and their health.

Theme 1: Natural Resources and Women's Livelihood

The synthesis reveals that forests are the most thoroughly studied natural resource system in terms of their importance for women's livelihoods and health. Water collection, agriculture and NTFP collection follow in relevance. Literature shows that dependency of women on natural resources is economically crucial and health-determining, with the two factors overlapping. Women comprise the majority of the agricultural labor force in many rural areas, although being subjected to systematic disadvantage in owning the land, access to credit and extension services. Pesticides represent a serious occupational risk to women. According to research carried out in Mysuru, Karnataka, menstrual disorders were significantly correlated with pesticides exposure ($p=0.004$). Only 4.62% of respondents used personal protective equipment (Shabadi et al., 2026). Water gathering is one of the most obvious gendered activities concerning natural resources. Women spent an average of 82 minutes on each water collecting trip. Insufficient water availability was extremely depleting women's energy and time as well as representing a threat to their health and well-being (Caruso et al., 2025). The collection and processing of NTFPs contribute to the livelihood and subsistence of millions of rural women. A study conducted on the Bonda tribal group in Odisha suggested the development of sustainable use and valuing of NTFPs to diversify their diets. (Li et al., 2026)

Theme 2: Physical Health Outcomes

Physical health outcomes identified in the literature could be grouped according to four themes: musculoskeletal, respiratory, reproductive and nutritional effects. The strongest evidence base relates to musculoskeletal and respiratory effects, which could be attributed to the clearly established impact pathway for carrying loads and exposure to smoke. Pesticide exposure-induced reproductive health outcomes form an emerging issue in India. The most frequently documented outcome due to the repetitive, load-bearing activities involved in collecting water and fuelwood. A scoping review identified the relationship of the two in a two-way approach, as both chronic and acute cases of carrying water were associated with musculoskeletal pain and disability (Meeuwisse et al., 2024). Indoor air pollution due to biomass burning results in high exposure of women. A study conducted in West Bengal reported PM_{2.5} levels up to 565 $\mu\text{g}/\text{m}^3$ with reports of irritation in eyes, breathlessness (33%), cough (22%) and dizziness (21%) (Bisui et al., 2024). Nutritional deficiencies including anaemia are associated with decreased availability of forest foods. In a study of Paudi Bhuyan tribe women, 64 percent of the population had anaemia (Mayank Bhusan Pani, 2026).

Theme 3: Mental Health and Psychosocial Well-being

Mental health dimensions are the least explored issue regarding the dependence on natural resources by women. The literature proves high mental stress caused by livelihood insecurity, environmental changes, heavy workloads, and exposure to hazardous conditions. For example, the case study on the Sundarbans shows how ongoing exposure to life-threatening situations creates trauma and resilience. However, mental health services are extremely scarce in such communities (Chowdhury et al., 2016). A study on the degradation of natural resources showed that the rural women were committed to their work in spite of degradation, they were tied to the duties of their homes and suffered from stress and an unhealthy life style (Saeed et al.,

2021). The findings on Sundarbans women who engage in risky occupations based in the forest showed that continual experience with life threatening situations forms the basis of trauma, coping, resilience and cultural sensemaking, although mental well-being of these women has been largely understudied (Bose & Sarkar, 2026).

Theme 4: Environmental Change and Women's Health

Environmental change makes people's life more challenging in various ways, including additional labour burdens, restricted food and water accessibility, and migration. The case of Odisha proves that the negative impact of the climatic changes falls primarily on women who continue being responsible for their households' food and water supply while husbands are working in other places (Mohanty et al., 2026). This situation has health consequences for women directly. In the districts of Keonjhar and Bargarh of Odisha, tribal women complained about travelling long distances to collect water for domestic and agricultural purposes. One of the Gond women in Kaliabeda village said: "When there is no water in the pond, living becomes difficult" (Mohanty et al., 2026). Climate-related events motivate men to move out while increasing the burden of work and the workload of women both at home and in farming. Women stated that their time spent finding water and food had increased (Mohanty et al., 2026). In the coastal area of Kendrapara, the effects of repeated storms, floods, and saltwater intrusion on farmlands and fisheries were discussed by women (Mohanty et al., 2026).

Theme 5: Natural Resources as a Path to Well-being

The literature is also rich in positive pathways. When women have assured access to natural resources and take part in governance, their health and nutritional status, along with economic status, improves. The review of literature regarding women's empowerment and energy transition shows that gender equality can enhance the impact of natural resource management on health. (Li et al., 2026). Forest-based foods provide affordable food in times of scarcity. An analysis of the nutrition and anemia status among the Bonda adults in Odisha suggested increased awareness about forest foods within local food systems (Li et al., 2026). Women's control over the collection and processing of forest foods has resulted in financial gains which allow access to healthcare facilities and other essential expenses. An initiative 'Grow Your Own Food' contributed to the health status and nutrition of the tribal and Dalit women. More than 5,000 tribal women were educated in permaculture and ecovillage design education (Women and Gender Constituency, 2025). Gender equality is key to overcoming the negative impact on health caused by energy poverty (Li et al., 2026).

Theme 6: Gender, Governance and Resource Access

Less than 15% of global agricultural landowners are women, UN Women says (Kumar, 2025), making it more difficult for women to have access to credit, decision-making powers and resources. Gendered patterns of labor allocation, especially women's dominance in collecting water, fuelwood and processing food, are discussed in the literature. Contradictions inherent in women's work, such as charcoal making despite its dirty character, do not cause changes in gender norms but contribute to their tension (Bitzer et al., 2024). The involvement of women in various resource governance bodies such as Forest Rights Committees and self-help groups can help to bring about improvements in resource sustainability and health results.

6. IMPLICATIONS FOR RURAL ODISHA

Odisha is an interesting case in which to explore the connections between gender, natural resources and health. The state has substantial tribal populations whose livelihoods depend on forest resources, as well as coastal populations reliant on fishery and mangrove resources and agricultural populations susceptible to climatic changes. The connection between forest depletion, greater distances traveled in gathering forest products, lowered consumption and poor health status is especially pertinent for the forest dwelling women. That 64 percent of Paudi Bhuyan women are suffering from anemia is indicative of this problem (Mayank Bhusan Pani, 2026). For NTFP collectors, the information about the occurrence of work-related musculoskeletal disorders among Sal leaf platemakers in eastern India is an occupational health issue for them. The possibility of NTFPs providing better nutrition and livelihood resilience makes it important for formulating policies regarding sustainable NTFP value chains with women participation. For coastal and fishing communities, the mental health issues found among Sundarbans women are pertinent to Odisha's coastal regions wherein women are working as fishermen, crabs' collectors and other livelihood activities in the face of cyclones and environment change. For agricultural communities, the information about the impact of pesticide vulnerability on women reproductive health is directly relevant to Odisha's agricultural areas where women workers are more than men and have access neither to personal protective devices nor training.

Even though the above information is obviously relevant to Odisha's communities and their issues, there is no integrated study available on the interaction of natural resource dependence, gendered labor force, livelihood resilience and health outcomes among them.

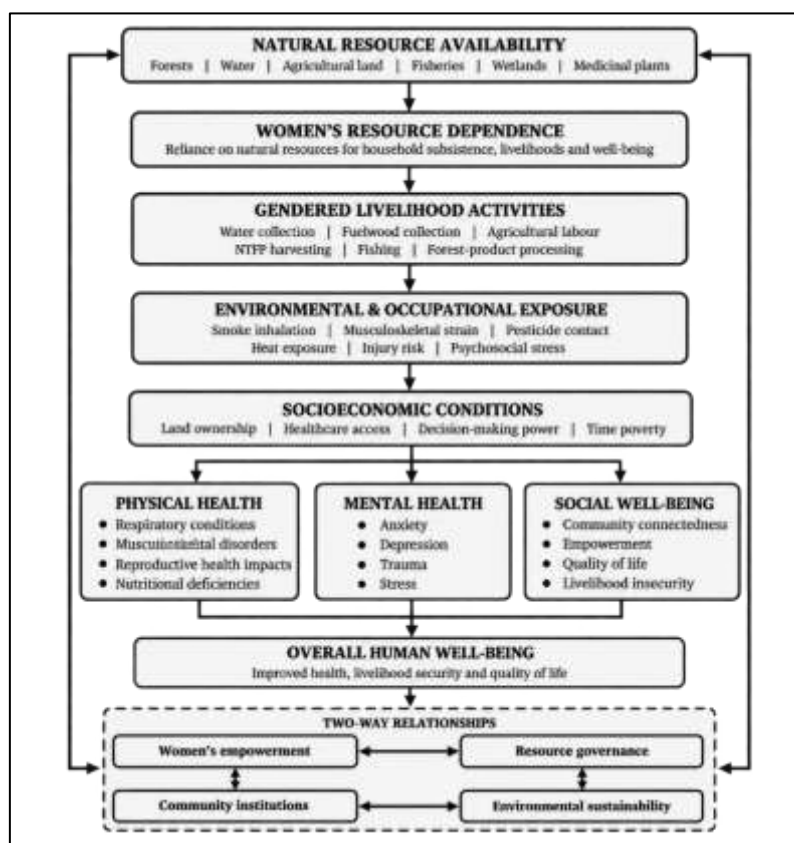
7. CONCEPTUAL FRAMEWORK

On the basis of the review of the literature, the following conceptual framework has been formulated, in which women's dependence on natural resources is seen as a major factor determining their health and well-being.

The conceptual framework works through the following mechanisms:

Availability of natural resources (forests, water, agricultural lands, fisheries, wetlands, medicinal plants) determines women's dependence on natural resources, which occurs through gender-specific activities such as collecting water, firewood, doing farm work, collecting non-timber forest products, fishing, and working with forest products.

Figure-2: Conceptual framework of women's natural-resource dependence and health outcomes in rural communities.



Framework note: The framework conceptualizes natural resources as livelihood assets and potential pathways of environmental and occupational exposure. Women's empowerment, resource governance, community institutions and environmental sustainability are interconnected factors influencing these relationships

8. CONCLUSION

Through this systematic review of literature, based on thirty (30) articles, we can demonstrate that the relations between women and natural resources go beyond mere reliance for livelihood purposes and have an important impact on health, nutrition, and wellbeing in rural areas. Natural resources act not only as the source of livelihood but also as the pathway of exposure to various environmental and occupational hazards. Gender inequalities, resource depletion, workload, environment change, and lack of health services are factors that influence these interactions, with women being disproportionately affected by them.

Several research gaps have been noted by the literature review. First, the aspect of the impact of natural resource dependency on the mental wellbeing of women has not yet been sufficiently addressed, especially the mental health consequences of changes in the environment, the insecurities of livelihoods and the exposure to hazardous occupations. Second, there is limited integration of research along the entire continuum from resource dependency to livelihoods and exposures to health consequences. Third, there is a lack of regional specific studies conducted in India, particularly in Odisha, given the different kinds of environments in Odisha – forest, coastal, agricultural and wetlands.

In case of rural India and Odisha, there needs to be an increased awareness on the issue of women's health with respect to resource dependent areas through integrated strategies using natural resource management and livelihood improvement along with gender empowerment and rural health programs. The policy measures need to account for the dual role of natural resources that serve both as health promoting and health threatening and ensure that the intervention intended for livelihood improvement does not lead to increasing health risks.

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