CHAPTER-09

HARVESTING WEALTH: THE ART AND ECONOMICS OF WICKER WILLOW CULTIVATION

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ABSTRACT

Wicker willow development addresses a spellbinding combination of farming sharpness and financial canny. This try incorporates a different cluster of contemplations, from the careful sustaining of fields to the insightful assessment of monetary practicality. Ranchers participated in wicker willow development explore a scene where farming practices meet with financial realism. At its substance, wicker willow cultivating requests fastidious preparation and reasonable systems to upgrade yields and guarantee supported productivity. It starts with the cautious determination of fitting area and the procurement of excellent seedlings, laying the foundation for an excursion described by development and headway. Be that as it may, the monetary components of wicker willow cultivating stretch out a long way past the limits of the ranch. They dig into the domain of market complexities, work consumptions, and the fragile harmony among speculation and returns. From customary basketry to contemporary development materials, wicker willow items track down reverberation across a range of businesses, underlining their financial importance. Market unpredictability, work accessibility, and natural maintainability further shape the financial landscape of wicker willow cultivating, requiring vital expectation and versatile flexibility. Maintainability arises as a directing ethos, underlining the basic of dependable asset the board while boosting financial possibilities. Through exact perceptions and true models, the financial aspects of wicker willow cultivating uncover both the obstacles and valuable open doors natural for this lively area. It fills in as a demonstration of the entwined connection among horticulture and financial matters, where the development of wicker willow unites with the quest for flourishing, yielding profits both unmistakable and elusive.

Keywords: *Wicker willow farming, financial feasibility and environmental sustainability, market volatility, tangible and intangible.*

1. INTRODUCTION

1.1 Woodlands and Non-Timber Forest Resources (NTFRs) Utilization

Backwoods encapsulate many-sided environments essentially included trees that act as regular supports for the earth, encouraging different living things. These transcending goliaths shape a novel climate, impacting the variety of vegetation that flourish inside their limits. Amazingly, backwoods add to 75 percent of the World's gross essential efficiency and harbour 80% of its plant biomass. Inside their many-sided embroidery, woodlands include a heap of parts, comprehensively ordered into biotic (living) and abiotic (non-living) components. Biotic constituents envelop a rich embroidery of life, going from great trees, bushes, and plants to fragile herbaceous plants, greeneries, green growth, parasites, and a variety of fauna including bugs, well evolved creatures, birds, reptiles, creatures of land and water, and microorganisms. These living creatures mix as one, supporting a lively biological system overflowing

with biodiversity. Woodlands, past their lumber yield, offer a cornucopia of assets crucial for human life. For centuries, individuals have gathered nuts, seeds, restorative plants, and other important products from these lush domains. As of now, family woods proprietors maintain this custom, with roughly 20% participating in the assortment of eatable or decorative items for individual use. Besides, backwoods yield a plenty of non-wood timberland items (NTFPs), involving one-of-a-kind substances and materials obtained without the requirement for tree collecting. The Food and Horticulture Association (FAO) of the Unified Countries characterizes NTFPs as "organically inferred items other than wood got from timberlands, other lush grounds, and trees outside backwoods." These include a different cluster of woods plant and mushroom items and related administrations, symbolic of the bunch benefits woodlands present to mankind (Biswas and Hussain, 2008). They include game creatures, fur-carriers, nuts, seeds, berries, mushrooms, oils, foliage, therapeutic plants, wicker willow, peat, fuelwood, fish, Flavors, and scrounge. The range of woods items has collected uplifted interest as of late. Their thriving business potential highlights the developing acknowledgment of their worth, with their maintainable extraction upgrading backwoods the board rehearses (Anon., 2013). Certain items loan themselves to monetary reaping from woodlands without compromising biodiversity, natural life living spaces, air and water immaculateness, and the safeguarding of social and social legacy. The reaping of NTFPs stays a common practice worldwide, rising above financial, geological, and social limits. People from assorted foundations participate in NTFP assortment for diverse reasons, including family food, social conservation, profound improvement, physical and close to home wellbeing, cooking and warming, creature sustenance, native mending customs, logical request, and pay age (Biswas and Hussain, 2009). Equivalent expressions for NTFP reaping incorporate wild-making, assembling, gathering, and searching. Among these NTFPs, wicker willow accepts fundamental importance.

1.2 Wicker Willow- An Important Non-Timber Forest Product

Wicker willow, privately alluded to as "Kani" in Kashmir, is eminent as a delegate of the Salicaceae family. Wicker means the term generally utilized for one-year-old sticks coming about because of willow pruning. Normally developed in cool, prolific, flooded lands, wicker willow flourishes in conditions with more than adequate water supply, yet it additionally shows strength against cruel winter ice. The course of ID presents difficulties because of willows hybridizing between various sorts inside the species, bringing about varieties in level, bark tones, and leaf qualities among various species. Wicker willow is developed through short-pivot coppice for the creation of malleable branches used in making crates, obstacles, and fascines, among different things (Masoodi et al., 2008). Following a time of development, the more extended

branches are collected and treated in bubbling water to strip off the bark, delivering the bar waterproof and more study. The handled wickers act as natural substance for limited scope ventures in Kashmir, where craftsman's make seats, tables, couch sets, containers of different plans, blossom jars, and an assorted cluster of extravagant things (Rather et al., 2010).

Ganderbal Locale in the Kashmir area stands apart for its great soil and climatic circumstances, making it the ideal area for developing and delivering willow wicker crops. Willow plants are spread from saplings, which are cut off and planted into the dirt to every year yield shoots. These saplings, ordinarily planted among February and Walk, keep on delivering yearly gathers until they are removed. A standard willow plant arrives at levels of 2-3 meters, with the yield ordinarily collected in October. Wicker willow multiplies all through the valley except for Locale Kupwara, despite the fact that its thickness fluctuates across various areas. Manors of wicker willow flourish in wetlands and regions inclined to flooding, including pockets inside paddy fields. This peculiarity highlights the higher productivity related with wicker willow development contrasted with rice cultivating. Furthermore, ranchers use wicker willow cuttings as soil restricting specialists along the bunds of paddy fields, proposing its likely coordination into agroforestry frameworks (Rather et al., 2010).

The prevalent types of wicker willow developed in the Kashmir valley is *Salix triandra*, regularly alluded to as Almond willow (Stott, 1992). Notwithstanding this species, two additional assortments are filled in the valley: *Salix dickymat* in Local Srinagar and *Salix rubra* in Ganderbal Region

1.3 Processes in Wicker Willow Cultivation

i. **Site planning:** In setting up a site for wicker willow development, it is fundamental to choose very much depleted, somewhat acidic to impartial soil with great air circulation. Pick willow assortments reasonable for the environment and expected use, plan fitting dividing, and give full sun openness.

ii. **Planting:** To plant wicker willow, pick a reasonable time during the lethargic season, regularly pre-spring or late-winter, and get sound cuttings from illness free parent plants. Plant the cuttings straightforwardly into completely ready soil, guaranteeing appropriate dividing and right direction with buds looking vertical. Completely water the cuttings, apply natural mulch for dampness maintenance, and safeguard them from outrageous atmospheric conditions.

iii. **Collecting:** Reaping wicker willow includes cautious thought of the expected use and the development phase of the plants. For basketry and wicker creation,

collecting is regularly finished during the pre-spring or late-winter when the willow shoots are at their generally adaptable and energetic. The timing fluctuates in view of the particular willow assortment and nearby environment conditions. Utilize sharp pruning shears or a reaping blade (normally known as AEND) to slice the willow shoots near the foundation of the plant, choosing those with the ideal thickness and adaptability.

iv. **Bubbling:** Bubbling is a pivotal move toward the handling of wicker willow for different applications, for example, basketry and furniture making. In the wake of collecting, the willow poles or shoots are frequently bubbled to improve adaptability and eliminate regular oils, making them more flexible for winding around. The bubbling system normally includes lowering the willow material in a huge compartment of water (usually known as BAHLAR) and stewing it for a particular length. This assists with separating the lignin and different mixtures in the willow, making it more straightforward to twist and shape.

v. **Stripping:** Stripping is a key stage in the planning of wicker willow for different applications, especially in basketry and furniture creating. Subsequent to collecting the willow poles or shoots, the external bark is normally taken out through a stripping interaction (typically finished with the assistance of ZELAN). This is finished to uncover the smooth and adaptable internal filaments, upgrading the material's usefulness. Stripping can be accomplished utilizing a blade, drawknife, or specific stripping devices.

vi. **Drying and Reviewing:** Subsequent to stripping, the wicker willow goes through drying and evaluating cycles to set it up for making applications. Drying is an essential step that includes cautiously air-drying or furnace drying the stripped willow to eliminate overabundance dampness and forestall shape or rot. Reviewing guarantees that the wicker satisfies explicit guidelines for its planned use, whether in basketry, furniture, or different applications. Excellent wicker frequently orders a superior on the lookout.

vii. **Handiwork Making:** Wicker willow, having gone through processes like reaping, bubbling, stripping, drying, and evaluating, is prepared for the specialty of workmanship making. Gifted craftsman changes the pre-arranged willow into a variety of handmade things like containers, furniture, and beautiful pieces. Utilizing customary procedures, weavers masterfully interweave and shape the adaptable willow strands into complicated designs, showing an agreeable mix of craftsmanship and usefulness.

2. METHODOLOGY

2.1 Description of the Study Area

The proposed study occurred in the purposively chose area of Ganderbal, arranged inside the Jammu and Kashmir state. Ganderbal gets its name from the eminent spring "GANDERBHAWAN," when thought about the Doorway to Focal Asia during antiquated times. Laid out in 2007, Ganderbal is among the eight recently made locale, shaped via cutting out regions from the past Srinagar area. Situated north of the undeniably popular Srinagar city in the Kashmir valley, Ganderbal traverses a rise of 1650 to 3000 meters above Mean Ocean Level (MSL). The Sind Waterway, a huge feeder to the Jhelum Stream, wanders through the locale, filling in as a fundamental hotspot for water system and hydroelectric power age. Cultivating prevails as the essential occupation in Ganderbal, connecting more than 80% of the functioning populace and subsequently situating the locale as a foundation of horticultural action in Jammu and Kashmir. The area's agrarian area, covering around 5758 hectares of land, contributes considerably to its financial food. The environment of Ganderbal mirrors that of different areas inside the valley. Higher height locales persevere through serious cold for broadened periods, restricting availability for a really long time. The beginning of April and May observers an ascent in mean least temperatures, joined by the rise of green grass and foliage on willow and poplar trees by late Walk. Late spring months, especially June, July, and a critical piece of August, are portrayed by raising temperatures. Fall unfurls as a time of peacefulness, set apart by moderate temperatures and bountiful harvests. As winter plunges, precipitation overwhelmingly appears as snow, with lower rises sporadically encountering precipitation.

The region's dirt arrangement has been carefully contemplated, sorting it into two essential sorts: the high countries, arranged somewhere in the range of 1850 and 3350 meters, and the Karewa uplands. The ripeness of soil along the flanks of the Waterway Jhelum is strikingly advanced by intermittent floods, recharging it with new stores of supplement rich sediment. Soil attributes change across high countries and Karewas, dependent upon elements, for example, site conditions, incline nature, and elevation. Ganderbal is geologically situated between 34.23°N Longitude and 74.78°E Scope, lined by Region Baramullah toward the west, Area Srinagar toward the south, recently framed Locale Bandipora toward the northwest, Arohoma woodland toward the north, and Locale Kargil toward the east. Enveloping 39304 hectares of land, the region contains six tehsils, including Lar, Kangan, Ganderbal, Tullamulla, Gund, and Wakura, alongside 115 possessed and 2 uninhabited towns. Nine Disc Blocks depict the regulatory developments, each adding to the locale's all out populace of 297446 people,

according to the 2011 evaluation. The country area houses 250407 occupants, while the metropolitan area obliges 47039 people. Ganderbal shows a typical proficiency pace of 59.99%, with male education remaining at 68.85% and female proficiency at 45.71%. Timberland cover traverses 988 hectares inside the region, adding to its biological variety and manageability.

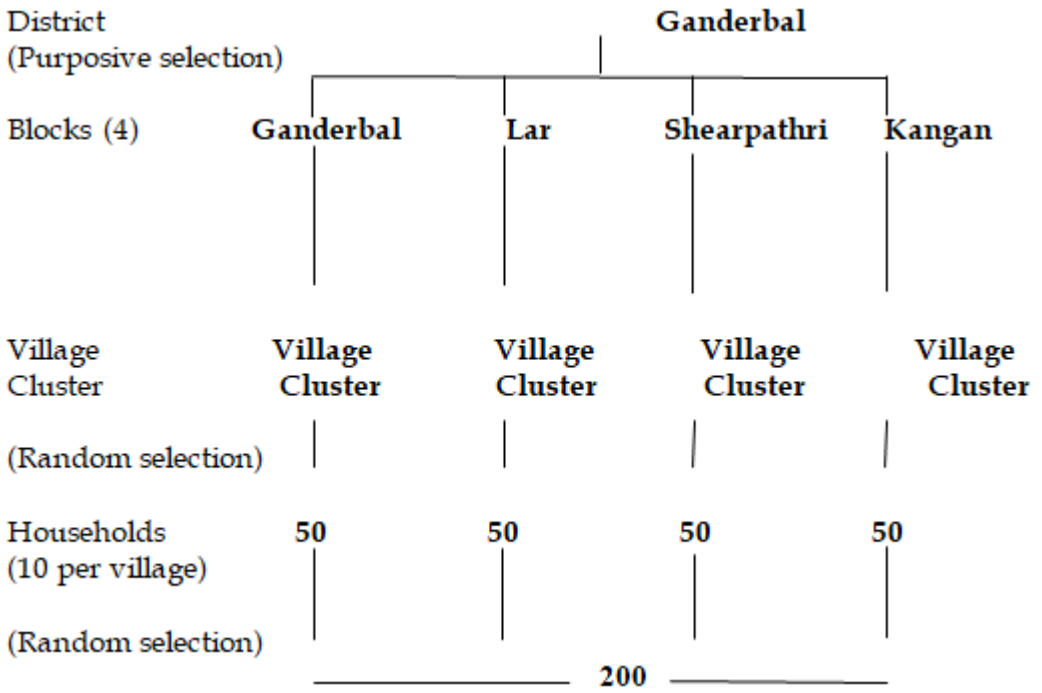
2.2 Selection of Sample and Sampling Design

The selection of the sample and sampling design in this study aims to comprehensively explore and quantify the diverse dimensions of wicker willow economics. District Ganderbal, situated in the Kashmir Valley, was purposively chosen due to its significant attributes in wicker willow cultivation. Notably, the district boasts a substantial average land holding of 0.40 hectares per family dedicated to wicker willow cultivation, yielding an impressive production rate of 12.69 tons per hectare. Moreover, Ganderbal district demonstrates a pronounced trend among the farming community towards the diversification and expansion of wicker willow cultivation practices. Given these compelling factors, Ganderbal emerges as an ideal setting for the present study, offering valuable insights into the intricate dynamics of wicker willow economics.

2.3 Sampling Design

The present study was conducted in purposively selected Ganderbal district of Kashmir province using multi-stage random sampling technique. In the first stage, four blocks namely Ganderbal, Lar, Shearpathri and Kangan were selected. In the second stage, a village cluster was randomly selected from each block. In the final stage, six households were randomly selected from each village making the total number of respondents up to 120.

Multi-stage Sampling:



2.4 Survey Schedule and Data Collection

Primary data were collected directly from producers, encompassing critical information on various aspects of wicker willow production and marketing. This data included details on total land holdings dedicated to wicker willow cultivation, the specific types of wicker species cultivated, the utilization of different marketing channels, the price spread of wicker handicrafts, year-wise costs and returns associated with wicker cultivation, as well as insights into the manufacturing processes of wicker handicrafts and other pertinent aspects of wicker willow production and marketing. Additionally, data from processing units involved in wicker willow cultivation, including information on the types of wicker species grown in selected blocks, prevailing marketing patterns, and relevant cultivation practices, were collected concurrently.

Furthermore, secondary data sources were utilized to supplement the primary data collection process. These secondary sources encompassed literature from various journals, research reports, records from organizations such as SIDCO and the forest department, village records, internet resources, previous research studies, annual

reports, and other pertinent documents related to wicker willow cultivation and marketing. The integration of primary and secondary data sources facilitated a comprehensive analysis of the multifaceted dimensions of wicker willow economics and provided a robust foundation for the present study.

3. RESULTS

3.1 Variety wise cultivation of wicker willow among surveyed respondents

Table 1 presents a detailed overview of the variety-wise cultivation of wicker willow within the study area. Among the respondents, *Salix dickymat* emerges as the predominant cultivar, with over half (52%) of the respondents dedicating their land to its cultivation, averaging 207 Kanals per respondent. Following closely is *Salix triandra*, cultivated by 22.5% of respondents, with an average area of 93 Kanals per respondent. *Salix viminalis* ranks third, with 8% of respondents engaging in its cultivation, averaging 43 Kanals per respondent. Combinations of cultivars such *as Salix triandra* + *Salix dickymat, Salix viminalis* + *Salix Dickymat, and Salix triandra* + *Salix viminalis* collectively account for smaller percentages of respondents' choices, ranging from 3% to 9.5%. The table underscores the diverse preferences in wicker willow cultivation among respondents, shedding light on the distribution and cultivation practices within the study area among the surveyed population.

Table 1: Variety Wise Cultivation of Wicker Willow

S. No	Cultivar	Average area involved (kanal)	No. of respondents	Percentage
1.	*Salix dickymat*	207	104	52
2.	*Salix triandra*	93	45	22.5
3.	*Salix viminalis*	43	16	8
4.	*Salix triandra* + *Salix dickymat*	38	19	9.5
5.	*Salix viminalis* +*Salix Dickymat*	35	06	3
6.	*Salix triandra* + *Salix viminalis*	10	10	5
Total			**200**	**100.00**

3.2 Year wise cultivation cost in wicker willow

Table 2 delineates the year-wise cultivation costs associated with wicker willow production, measured in Rupees per year per kanal. The breakdown encompasses

several key expense categories over an eight-year cultivation period. In the initial year, the most significant expenditure occurs in land preparation, amounting to Rs. 2500 per kanal. Costs for Farm Yard Manure (FYM) fluctuate over the years, peaking at Rs. 700 in the second year and gradually diminishing to Rs. 500 in the third year. Expenses for plants or planting material, fencing, fertilizers, and weeding and cleaning also vary across the cultivation period. Notably, fertilizer expenses peak at Rs. 517 in the fourth year, while weeding and cleaning costs progressively rise to Rs. 850 in the eighth year. The cumulative total of cultivation costs over the entire eight-year period amounts to Rs. 17843 per kanal. This detailed breakdown provides invaluable insights into the financial intricacies involved in wicker willow cultivation, offering stakeholders a comprehensive understanding of the economic dynamics associated with this agricultural practice.

Table 2:Year wise cultivation costs in wicker willow (Rs/year/kanal)

Costs	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**Total**
Preparation of land	2500	0	0	0	0	0	0	0	**2500**
FYM	700	700	500	0	0	0	0	0	**1900**
Plants /planting material	1850	0	400	0	0	450	0	0	**2700**
Fencing	1200	0	0	0	0	0	0	0	**1200**
Fertilizers	650	400	435	450	517	481	600	600	**4133**
Weeding and cleaning	0	550	770	765	810	845	820	850	**5410**
Total	**6900**	**1650**	**2105**	**1215**	**1327**	**1776**	**1420**	**1450**	**17843**

3.3 Average year wise returns from wicker willow per kanal

Table 3 illustrates the average year-wise returns generated from wicker willow cultivation, measured in Rupees per kanal. The breakdown covers returns over an eight-year cultivation period. In the initial year, returns are recorded as zero, reflecting the preparatory nature of the first year. Subsequently, returns increase progressively over the following years, peaking at Rs. 10250 in the fifth year. From the sixth to the eighth year, returns gradually decline, reaching Rs. 6550 per kanal in the final year. The total

returns generated over the entire eight-year period amount to Rs. 56176 per kanal. This detailed breakdown provides insights into the revenue dynamics associated with wicker willow cultivation, offering stakeholders valuable information regarding the financial outcomes of this agricultural endeavour.

Table 3: Average year wise returns (Rs. per kanal)

Year	Returns
1st	0
2nd	3286
3rd	8780
4th	9550
5th	10250
6th	9790
7th	7970
8th	6550
Total	**56176**

4. DISCUSSION

The synthesis of Tables 1, 2, and 3 offers a comprehensive understanding of the economic landscape surrounding wicker willow cultivation. Table 1 delineates the variety-wise cultivation of wicker willow, showcasing the preferences and practices among respondents in the study area. Salix dickymat emerges as the most widely cultivated cultivar, accounting for over half of the respondents' choices. This preference is reflected in the subsequent financial analyses. Table 2 provides a detailed breakdown of year-wise cultivation costs, elucidating the significant investment required in land preparation, planting materials, fertilizers, and maintenance activities over an eight-year period. Conversely, Table 3 illustrates the average year-wise returns per kanal, depicting the revenue generated from wicker willow cultivation. While returns start modestly, they progressively escalate, peaking in the fifth year before tapering off in subsequent years. Nonetheless, the cumulative returns over the eight-year period remain substantial. This holistic discussion underscores the intricate financial dynamics inherent in wicker willow production, emphasizing the need for judicious financial

planning and management to ensure the profitability and sustainability of this agricultural enterprise.

5. RECOMMENDATIONS

Based on the insights gleaned from the study, several recommendations can be proposed to bolster wicker willow production in the area:

i. **Enhancing Socio-Economic Status:** The study highlights the disadvantaged socio-economic status of individuals engaged in wicker handicrafts. Interventions aimed at improving their quality of life should be explored through innovative approaches that leverage existing resources effectively.

ii. **Value Addition for Product Enhancement:** There exists significant potential to enhance the quality and variety of wicker products through value addition techniques. By investing in processes that improve product quality, stakeholders can command better returns in the market.

iii. **Strengthening Marketing Infrastructure:** Both domestic and foreign market opportunities for wicker products should be explored. Strengthening the marketing infrastructure, including the establishment of cooperative societies, can render wicker handicrafts more financially rewarding for stakeholders.

iv. **Considering Socio-Economic Characteristics:** The socio-economic characteristics of individuals engaged in wicker handicrafts should inform the design and implementation of promotional strategies. Tailored initiatives should address the specific needs and challenges faced by these communities.

v. **Skill Development and Capacity Building:** Efforts to develop skills and build capacity among wicker artisans are essential. This can be achieved through effective extension services, training networks, and collaborative measures involving Governmental Organizations (GOs), Non-Governmental Organizations (NGOs), and Community-Based Organizations (CBOs).

By implementing these recommendations, stakeholders can foster a conducive environment for the sustainable growth and development of wicker willow production, thereby improving livelihoods and fostering economic empowerment within the community.

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