The Voice That Still Guides the Fields: Khana and the Agrarian Memory of Bengal





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When clouds gather in unusual patterns or the winds change direction before the monsoon, elderly farmers in the villages of Bengal still remember the words of a woman who may have lived a thousand years ago.

Purna Ashadhe dokkhina boy,
sei bochhor bonna hoy. 2. 45, p. 21

According to this verse, if the southerly wind continues to blow throughout the month of *Ashadha*, there may be a chance to flood that year. This is one of the agricultural predictions of *Khanar Bachan* who was a famous woman scholar of Bengal. We have very few records about Khana's life but her knowledge has been passed through the generations of farmers in the Bengal area, Bangladesh and some parts of Assam. Today, as climate has changed and environmental problems are increasing in this situation this traditional knowledge is gaining new attention. Several regional traditional knowledge systems show how farmers have long observed nature and used its signs to understand weather patterns and plan for farming. In this way, *Khanar Bachan* is an important source of traditional ecological knowledge.

A Voice Between History and Memory

The exact details of Khana's life remain unknown. Most of the information about Khana comes from folklore and oral traditions. According to some scholars' opinions the site called *Khana-Mihirer Dhipi* in the *Chandraketugarh Berachampa* area of North 24 Parganas has a connection of Khana but there is still some argument among scholars about her life story. However, her voice has continued to live through Bengal's oral tradition. Her *Bachan* were composed in very simple rhyming Bengali that offered practical advice on agricultural wisdom including harvesting, soil fertility, prediction of rain and tree planting. Thus, *Khanar Bachan* preserves valuable local knowledge about agriculture and the environment.

Agriculture as Empirical Science

While classical Sanskrit texts on agriculture were mainly written for scholarly audiences but *Khanar Bachan* was composed in a simple manner that the ordinary agrarian community could understand. These *bachanas* are mainly composed in a rhyming way that can be easily learned and remembered through the oral tradition. These *bachanas* provide practical guidance on crops, soil improvement, water regulation and interpreting weather and seasonal changes. In this way, *Khanar Bachan* became a useful source of knowledge for everyday farming. Such as one verse that shows *Khanar's* careful observation of weather and its effect on agriculture:

Jodi borshe Aghrane,
raja jan magone.
Jodi borshe Poushe,
kori hoy tushe.
Jodi borshe Magher shesh,
dhonno raja, punno desh.
Jodi borshe Falgune,
china kaun dwigune.
2,35, p. 19

Above, this verse shows Khana's careful observation of nature. She did not simply accept things as they were. She understood that the timing of rainfall could affect farming. Rain during harvest could damage crops and reduce yields, while rain at the end of winter could help rabi crops and some types of millet. Even today also agricultural scientists recognise that the timing of rainfall can be as important as the amount of rain. Khana also understood the importance of healthy soil for good farming:

Kochubone jodi chhoras chai,
Khana bole tar shongkha nai. 1.47, P.9

The above statements basically suggest how to improve soil quality for the taro plant. The idea is very simple but it is still useful as a homemade mixture. Soil can lose its nutrients over time. Traditional practices associated with *Khanar Bachan* show how to use cow dung, pond sediment, plant waste and wood ash to improve the soil quality. These traditional methods help keep the soil healthy. Today, similar methods are used for improving soil structure, microbial activity and nutrient availability. As well as her ecological understanding extended equally to horticulture:

Hat bishek kori phak,
Am-kathal punte rakh.
Gach gachali ghon sobe na,
Gach hobe tar phol hobe na. 1. 58, p. 11

Khana also advised farmers to keep enough space between mango and jackfruit trees. Proper spacing allows enough sunlight and air to reach the trees. It also gives the trees enough nutrients and helps prevent diseases. This can improve fruit production over time.

Reading Nature Before Forecasts

One more interesting part of *Khanar Bachan* is the way of observing the weather. Khana noticed changes of the air direction and particularly noticed how animals behaved before rain. According to her observation there is a close connection between animal behaviour and calamity. She spoke like:

Purbete uthile kand,
Danga-doba ekakar. 2. 25, P. 18

The above verse demonstrates that if rainbow appearing in the eastern sky its interpreted as a sign of heavy rainfall and possible of flood. In another place she mentioned:

Byang dake ghon ghon,
Brishti hobe shighro jan. 2.30, P.19

The above statements basically indicate that the croaking of frogs could be sign of heavy rainfall.

Contemporary ecology recognises amphibian species as sensitive bio-indicators that respond rapidly to changes in atmospheric moisture. Khana also noticed such changes in animal behaviour. This shows how farmers used centuries of systematic environmental observation to understand the weather and make farming decisions. Her understanding of landscape ecology is as remarkable:

Nodir dhare putele kochu,
Kochu hoy tin hat unchu. 1.44, P.9

This statement basically demonstrates that moist alluvial soils near riverbanks naturally favour cultivation of taro. Similarly, her advice on coconut cultivation is as:

Narikel gache lun mati,
Shighro shighro badhe guti. 2.72 P.12

It represents empirical understanding of mineral rich coastal soils, findings that are somewhat supported by contemporary agronomy in saline agro ecosystems. These statements provide an example that farming communities developed a sophisticated systems of environmental interpretation based on constant closely observation of nature, local ecosystems long before meteorological offices and agricultural universities.

From Folk Wisdom to Public Policy

Traditional agricultural knowledge offers valuable opportunities to strengthen sustainable and culturally rooted farming in India. Integrating regional and women-centric agricultural wisdom into Indian Knowledge Systems (IKS), supported by NEP 2020 and the IKS Division, can promote its wider recognition. Documenting indigenous practices and developing farmer-friendly resources combining traditional and organic methods can ensure their preservation and accessibility. Platforms such as Kisan Call Centres, *Doordarshan Kisan,* community radio and documentaries can support wider dissemination. Recognising Khana and other women knowledge holders, alongside village-level workshops based on regional texts, can further promote low-cost, ecologically sustainable farming and rural resilience.

A Voice That Refused to Disappear

Although Khana's voice has faded from recorded history but her wisdom continues to live in farmers' memories and the rhythms of the land. Remembering Khana means not only honouring a largely forgotten woman scholar but also recognising the relevance of traditional knowledge to the future of Indian agriculture. Khana occupies a unique place at the intersection of folklore, environmental history, agricultural science and women's intellectual history.

Fable with Moral

The hare and the moon

(Sasa jataka, jataka # 316)



Long ago, in a previous birth the Buddha lived as a wise and compassionate hare at the foot of a mountain. He lived alongside three close friends: an otter, a jackal and a monkey. The hare acted as their natural leader, frequently teaching them about moral ethics and the profound virtues of generosity.

One evening before a holy fast day, the hare urged his friends to gather wholesome food to offer to anyone in need. The next morning, his friends set out early to collect food. They all collected their favourite food items. The otter found seven fish buried in the sand. The jackal gathered a pot of yoghurt and a lizard from an empty hut. The monkey collected juicy mangoes from the mountain. All three returned to their dwellings, prepared to give away their findings.

The hare gathered grass but quickly realized that humans do not eat it. Determined to make a worthy offering, he made a blissful vow to sacrifice his own flesh. This selfless resolution was so powerful that the earth trembled, the air filled with fragrance and flowers showered from the sky.

Sakka, the God of heavenly beings, decided to test the authenticity of the hare's vow. Disguised as a hungry Brahmin, he visited the otter, the jackal and the monkey. Though each animal eagerly offered their food, Sakka declined and moved on. When he finally approached the hare, the creature immediately offered his own body as food.

To facilitate this sacrifice, Sakka used his miraculous powers to create a heap of burning coals. The hare carefully shook his fur three times to protect any hidden insects and then leapt fearlessly into the flames. Remarkably, the fire felt completely cool and did not harm him.

Sakka then revealed his divine identity and lifted the hare into the heavenly realm. To commemorate this ultimate act of selflessness for all eternity, Sakka drew the image of the hare onto the surface of the moon.

Moral of the fable: Generosity and sacrifice are true virtues

Did you know?

An Indian Community Grows Rice, Fish and Millet Together in the Same Fields!



In Arunachal Pradesh's picturesque Ziro Valley, the Apatani community has developed a remarkable farming system that produces three different foods from the same agricultural landscape--rice, fish and millet! The Apatanis are an indigenous community inhabiting the Ziro Valley in the Lower Subansiri district of Arunachal Pradesh. Their settlements are surrounded by forests, streams and cultivated fields. Agriculture has historically been central to their livelihood and social organisation.

In this traditional system, rice grows in water-filled paddy fields while fish are reared in the same water. Finger millet is cultivated on the raised earthen boundaries separating the plots, ensuring that even the field margins are put to productive use. Water from streams flowing down the surrounding forested hills is carefully channelled into the fields through an intricate irrigation network. Crop residues and organic wastes help replenish soil nutrients, reducing dependence on chemical fertilisers. The particularly interesting feature is the relationship between forests and agriculture. In the Apatani system, protecting the forested hills helps maintain the water supply for the fields below. Thus, forest conservation is not separate from agriculture--it is part of the farming system itself.

The Apatanis' agricultural knowledge reflects generations of adapting to the environment through efficient land use, water management and forest conservation. Recognising the significance of this living cultural landscape, India placed the Apatani cultural landscape on UNESCO's World Heritage Tentative List in 2014.

Wisdom Word Search

R	G	R	N	N	B	O	W	A	A	I	L	T	K
V	P	A	Q	K	I	K	S	A	N	G	O	A	E
J	U	T	A	A	I	S	F	K	L	P	S	R	E
A	H	U	A	H	A	O	A	L	L	O	A	U	T
L	U	C	M	R	N	W	Z	R	A	U	I	S	N
L	N	H	N	G	T	A	F	N	G	O	Q	H	A
K	A	K	G	A	A	Q	K	U	W	A	M	R	A
H	I	H	A	W	N	I	R	A	I	A	S	E	S
E	U	A	K	N	G	R	J	P	U	L	L	N	H
T	T	A	M	L	A	B	K	A	T	A	A	I	A
I	I	D	A	I	B	O	B	O	R	J	Y	O	K
O	S	C	N	S	I	N	C	H	A	I	I	W	N
D	I	G	A	N	T	O	R	E	K	H	A	F	M

WORDS TO FIND
Bowaai, Gaahna, Jutaai, Kataai, Khaad, Kheti, Keetnaashak, Nirai, Osai, Sinchai

THE WISDOM LEXICON

BOWAAI: The act of sowing seeds or planting crops in the prepared field.
GAAHNA: The process of threshing, which separates grain from the chaff or straw.
JUTAAI: The process of ploughing or tilling the soil to prepare it for planting.
KATAAI: The process of harvesting or reaping mature crops from the field.
KHAAD: Fertilizer or manure added to the soil to supply essential nutrients for plant growth.
KHETI: The general practice of farming, agriculture, or cultivating land.
KEETNAASHAK: Pesticides or chemical substances used to destroy insects and other organisms harmful to cultivated plants.
NIRAAI: The manual or mechanical removal of unwanted weeds from the crop field.
OSAAI: The traditional method of winnowing, using wind to separate grain from chaff.
SINCHAAI: The artificial application of water to land or soil to support crop growth (irrigation).

Note: These terms come from Hindi, one of India's 22 Scheduled Languages.

Marvels of India

KASHMIR'S AGRICULTURAL HERITAGE



Rice and Food Security
Kashmir's agrarian accomplishment rested less on a single crop than on managing water across a flood-prone valley. Archaeological reports date the rice remains at Semthan (an important archaeological site, now a village, in the Anantnag district) around 1500 BCE. Later, Kalhana's *Rajatarangini*, the most significant historical record of ancient Kashmir, credits King Avantivarman (855-883 CE) and his engineer Suyya with regulating rivers, improving canals and matching water supply to different soils. It describes how irrigation and flood control expanded cultivation and helped ease food scarcity. That intelligent blending of engineering and surplus makes rice central to Kashmir's history of food security.

Saffron and Distinctive Soil
Saffron (*kesar*) added a high-value crop to this agricultural landscape. Kashmir's well-drained Karewa soil and cool climate suit saffron cultivation. Kalhana counts it among Kashmir's special distinctions. Its origin is debated: one study suggests Central Asian settlers around the first century BCE.

Lotus and Wetland Food
Lotus stem (*nadru*) represents food drawn from Kashmir's lakes and wetlands, complementing field crops. Together, rice, saffron and wetland produce, supported by hydraulic engineering, exhibit diversified agriculture built for resilience.

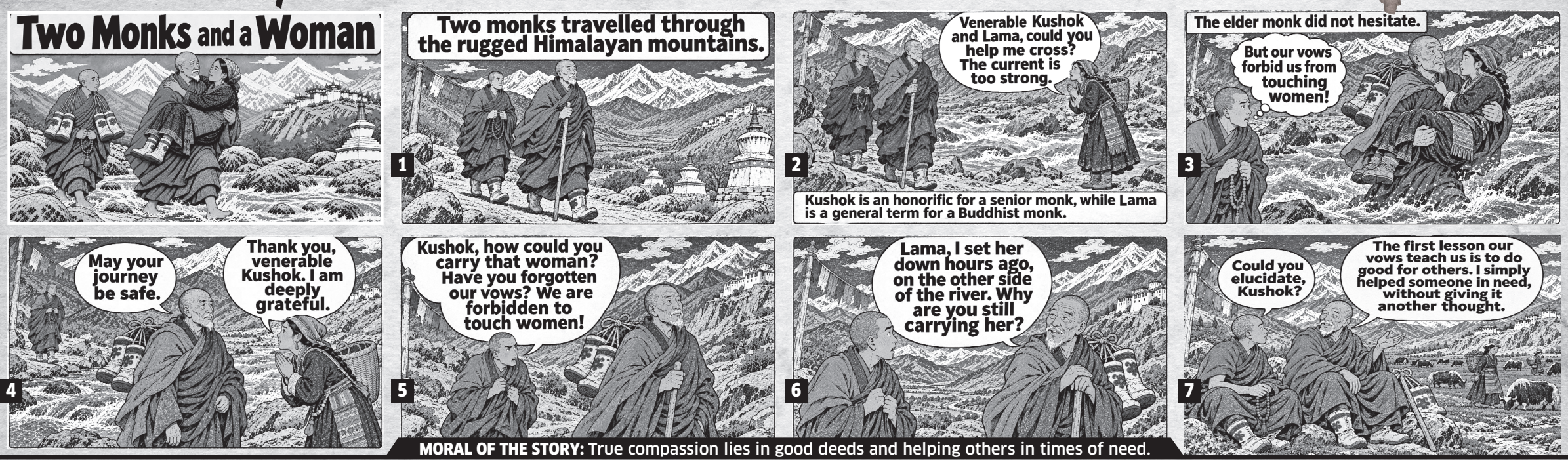
QUIZ Agriculture & Food Security

	Questions	Option A	Option B	Option C	Option D
1	 Identify this famous nutrient-dense vegetable from the deserts of Rajasthan.	Kachri	Ker	Sangri	Kantola
2	Which of these animals is likely to produce salty milk?	Sheep	Camel	Goat	Yak
3	Which of these fruit crops is not grown in Gujarat?	Chikoo	Grapes	Mango	Kokum
4	Traditionally, which communities from Gujarat have been cultivating crops like maize, bajra and ragi?	Gonds	Siddis	Bhils	Maldharis

Answers: 1 - C, 2 - B, 3 - D, 4 - C

ethical parable

A Zen Tale



MORAL OF THE STORY: True compassion lies in good deeds and helping others in times of need.