For as long as they can recall, Kol tribals in the Chitrakut district of Uttar Pradesh, depended on the forest for food and livelihood. The jungle was an old and trusted friend yielding nutritious mahua, anvla and chirauni. Tribals could earn money by selling such forest produce and by plucking tendu leaves.

But since the last five years, this tried and tested support system is crumbling. The tribals do not know why. Yet, they speak in unambiguous terms about the losses suffered by them.

"We have been eating mahua in different ways during different seasons," explains Phulmatiya, a Kol woman. "It is extremely good for our health. Till a few years ago, we were able to collect enough mahua for our needs all the year through. We could also sell mahua and earn some cash. But, during the last season when we went to collect mahua, we hardly got anything."

Phulmatiya comes from Mangawaan village of Manikpur block in Chitrakut. Other villagers, too, were keen to stop and talk despite the winter chill.

"Earlier, collection of tendu leaves was a significant source of livelihood for us," says Prem, another Kol woman. "But now such few leaves are collected that our earnings have declined considerably. Some of the leaves we pluck are so small that even after we've worked hard to collect them, they are rejected. Buyers say that such small leaves cannot be used to roll bids."

Kunni, an articulate middle-aged Kol woman said, "Previously, we did not worry so much about hunger. Even if it was a rainy day and we couldn't..."
go for work, we could always go to the forest to collect roots and tubers like Briatin and Angitha. Once I boiled or cooked these, there was enough food and no one would remain hungry. But these have become so rare now."

Kodan Kol remembers his favourite Parora, a vegetable available in the forest and relished by all. "Now its availability is just 10 per cent of what we obtained a few years ago," he says.

Most villagers here are small farmers who have been adversely affected by erratic rainfall in recent years. According to government data, rainfall in Chitrakot district was deficient by 14 per cent in 2004-05, 8 per cent in 2005-06, 22 per cent in 2006-07 and as much as 60 per cent in 2007-08.

But people say such statistics do not convey the right picture of their problems. It is not just the amount of rainfall, but the timing of the rain that matters. If rainfall falls when crops need it the most then it doesn't matter if it rains excessively some other time.

When rainfall and overall weather patterns became more erratic, more unpredictable and don't fall in line with established cropping patterns, then farmers and their crops suffer much more than by shortages in annual average rainfall. This is what has been happening in recent years in these villages.

"Due to hotter conditions the wheat crop matures earlier than usual and grain formation is adversely affected," says Raja Bua, a senior activist of the Akhil Bharatiya Samaj Seva Sansthan (ABSSS), who has worked in Chitrakot for several years. "It is these kind of changes which indicate a more durable alteration in weather patterns, distinct from the temporary change caused by a bad year, or a year of lower rainfall."

Discussing the decline of the palash tree, known for its beautiful flowers, a tribal says, "So rarely the tree flowers now."

Weeds like lantana and parthenium are spreading fast while there is an increasing scarcity of fodder. Cows yield much less milk and for a shorter duration. At this moment, a tribal woman blurts out, "It is not only cows, women also have less milk." Several villagers start laughing, but further questions reveal a much more serious fact. Earlier, it was customary to breastfeed babies for nearly two years. Now babies are breastfed for less than one year.

As we moved on to speak with the people of Tikariya, Dhonda and Amchur Neruva villages, we found further confirmation that the changes taking place in recent years, particularly during the last six years, go beyond the occasional drought - induced changes which are temporary and reversible.

Kusuma Kol says for two years the crop loss on her fields was so complete that she did not even try to harvest it. Sagrty Kol says mahua and tendu leaf collections are just 25 per cent compared to a few years back while a weed called Gundhala is spreading widely.

Dharma Narain Dwivedi is a leading farmer of Amchur Neruva village, owning about 65 bighas (25 acres). Till a decade ago, his fields provided adequate food all the year through for his nine-member family, apart from significant cash earnings. Today, his farm yield doesn't provide food for even six months, he says.

Ramu Kol says he has 13 bighas from which he used to get 15 sacks of paddy in good times. One sack contained about 80 kgs. But in recent years, the land has just lain uncultivated. He didn't risk
farming on his fields because of the uncertainties.

Ramdhuk recalls that over a decade ago ABSSS made an effort to get tribals a better return for the mahua they collected. Some tribal families of Amchur Neruva village collected 20 sacks of mahua. Now we can barely collect a little mahua to eat once in a while, he says.

Gokul, a honey collector, says that honey collections have gone down very heavily. Other gatherers of forest-produce lament the heavy reduction in the collection of chiraunji seeds and anvla fruits, both high nutrition products that also yielded a good income when they were available in plenty.

To check this decline in livelihood and nutrition from farming and forests, the ABSSS has initiated significant watershed development projects. The watershed plan in Mangawaan panchayat extends over 1500 hectares and is supported by Sir Dorabji Tata Trust. Two initiatives in Itwaan Paatin and Markundi-Amchur Neruva villages, extending to 3500 hectares, are supported by NABARD.

These initiatives involve treatment of the hills and valleys to ensure that rainfall is saved in fields, pastures and tree lands so that crop yields and produce of indigenous trees like mahua, anwala and other fruits can increase. In the Mangawaan watershed project the objective is specific to increase the tree cover ten times. An earlier, smaller effort in Tikariya, supported under the drought-prone area programme, has resulted in increased crop yields for some of the poorest farmers. The water-table has risen and so have the number of trees. Such efforts are accompanied by social mobilisation to increase the capacity of communities to work together for the overall welfare of their villages.

Villagers with much improved water and moisture conservation have more trees and better pastures. Such an environment is conducive for improving livelihoods and nutrition. Bhagwat Prasad, Director of ABSSS, says, "We've learnt valuable lessons from our earlier experiences in Tikariya. This area called Patha has an old history of water scarcity. We'll try to convince people to accord first priority to drinking water needs of people, then to the drinking water needs of farm animals, and only then use water for irrigation. We'll be emphasising environment friendly farming. The aim is sustainable development of the village community with special emphasis on the poorest."

Recalling the old days Gaya Prasad Gopal, founder-director of ABSSS, says, "From the outset we emphasised the land rights of Kol tribals, and this base will give us to strength to ensure that these initiatives provide the most help to weaker sections, particularly Kol tribals."

At a time when climate change and adverse weather conditions are causing far reaching changes leading to adverse impacts on livelihoods, nutrition and health, it is a relief to know that at least some efforts are being made and some signs of hopes are emerging.