

## Climatic chaos and vanishing potatoes

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There are no cascading waterfalls among the dark green hills; or does any glittering stream carry crystal cold water. During January-March dry season much of the beautiful harmony of nature has been carried away with the time; however, it was not so even during dry seasons two or three decades ago. Instead, there was the hum of some hundreds of water pumps echoing among the hills; misty dark greenery was replaced with hundreds of brown coloured terraced vegetables fields, one upon the other on the steep hills.



Palitha Wijethunga:  
Increase in  
temperature good for  
potato cultivation

This is Nuwara Eliya, the country's famous cool capital, known as Little England, is also the country's potato capital since the country's best potatoes are produced here. It is a matter of some more decades before the crop is doomed in the cool climes as Nuwara Eliya is getting hot! Future generations would not be so fortunate as to taste crunchy, crispy, Nuwara Eliya potatoes!

### Temperature gap

Of course, Nuwara Eliya is getting hot, simply every one feels it, residents, visitors and so do the scientists! According to the Meteorological Department statistics, each passing year the minimum night time temperature in Nuwara Eliya increases by 0.025 degrees and the temperature in Nuwara Eliya will increase by 2.5 degrees during the next century! "By then, potatoes could not be grown in Sri Lanka," warned Dr. Punyawardane, Head, Agro-Climatology Unit, Agricultural Department, Kandy.



D.M.S. Sunil: Potato should not be cultivated in Nuwara Eliya

"You can grow potatoes in Kandy, but without any tubers, it would be just an ornamental plant, here," he commented. He explained that there should be a difference of eight degrees between the day time maximum and the night time minimum temperatures to grow potatoes and it is less than eight in Kandy; however, which is around ten in Nuwara Eliya, he said. "The more the difference the better the potatoes," he said.

smaller, number of potatoes per plant would be less and it would not be crispier," he noted.

He said that the temperature gap is gradually narrowing down in Nuwara Eliya at an alarming rate of 0.025 degrees per year. "As a result the potatoes would be

"The reduction in the yield could be partially due to the increase in the temperature," expressed Dr. Punyawardane, due to this significant annual increment in the temperature, which is the highest in the country. He added that the high soil erosion and poor quality seeds contributed to drastically reduce the yield. The crop was first

introduced in the country in the 1950s and the harvest then had been twentyfold, he said.

### **Downpour and higher temperature**

Palitha Wijethunga (41), Vijayabhapura, Kandapola, cultivated around one acre of potatoes for 20 years also has evidence that the climate in Nuwara Eliya, has changed. "North-East Monsoons may come 1-2 months early or late." He recollected that the continuous showers the Monsoon had been replaced by heavy downpour for a few hours and longer consecutive dry periods. "Now it's changed. Sometimes it would rain for a week and sometimes not at all and there would be sudden downpours which would destroy cultivation," he explained how the weather in the highlands had changed. "We have not had a proper rainy season since mid December last year." He pointed out that the temperature in Nuwara Eliya too had gone up. January and February supposed to be the coldest months of the year, was not cold as before. "Look, now people do not wear warm clothes. I am wearing just a shirt," he elaborated.

### **Poor quality seeds**

Along with those changes in the climate, the crop yield too has come down. "Definitely, there is a reduction in the yield," however, he said that there were some other contributory factors, such as the use of the poor quality seed potatoes had affected the yield.

"The more the rain, more are the diseases, that attack the potato cultivation."



Potato plant

### **Poor yield**

D.M.S. Sunil of Lady McCullum Drive, Nuwara Eliya said if the climate is good he could fetch a good harvest of 500kg of potatoes from 50kg of seed potatoes. Usually, the average amount was around 300-400kg. Drought is worse than 5-6 years ago and the yield is poor. Rain is less but there is a lot of "Akala Wehi," untimely rains which are not expected that would erode fertile top soil and destroy vegetable plants. Nuwara Eliya is a mountainous terrain, therefore, growers should level the steep slopes for the cultivation; these are narrow bed upon bed as you see it from a distance.

These terraced fields are quite vulnerable to heavy rains. A kilogram of potato was sold at Rs. 60 over 15 years ago, when one a kilogram of rice was just around 10-20 rupees. Now a kilo of rice and potatoes are sold at Rs. 60. He said that Indian Potatoes are available in the heart of country's potato production districts may be for the first time. "People do buy them because they are cheaper."

### **Mahaweli project**

He pointed out that drastic consequence of the climate change that occurs in Nuwara Eliya area, which is an important water shed of the Mahaweli river, the country's longest river, key to the electricity generation and the agriculture in the dry zone. "One of the reasons for the implementation of the Mahaweli Project was that the river carried a substantial amount of water even during a drought."



P.A. Appuhamy Senarathne: Fears prolonged drought

But there was only a little water in the reservoirs down stream as virtually thousand water pumps sprayed water out of streams that fed the river and vaporize it into the cold dry air.

Not a single stream carried water down stream during the dry season. There was a dearth of water in areas such as Welimada and Kotmale which lie below Nuwara Eliya.

No wonder the reservoirs downstream lacked water he explained. He believed that ideally the potato cultivation should be stopped in Nuwara Eliya.

If one is concerned of the country's future and only a few would lose their livelihood, but the country would conserve its vital life blood. After all, the cultivation has not contributed much to the development of the area.

### Severe drought

P.A. Appuhamy Senarathne (72) of Magoda, Ruwaneliya, said the unbearable cold when he first settled in 1972 has been considerably changed and that he only needs a shirt during the day time.

But even I was young I had to put on number of clothes.

"The people just left lands granted by the government because it was so cold." This year we had ground frost even in December, which we usually have in January-February and the dry period is longer than usual and from last December we did not have rain.

The wells were dried and people do not have water even for drinking. "This could be first time that wells ran dry.



A plot being prepared for potato cultivation.

We never had such a drought before. Nuwara Eliya water was just like crystals, we used to drink water from streams, which are now polluted, he recollected.

He too agrees that the potato yield is poor due to number of reasons; that seeds are of poor quality, poor soil which is not fertile because of decades of erosion.

Also the higher cost of fertiliser makes people use less fertilizer. He also alleged that the agricultural officers never visited their cultivations. Would climate change and global warming, change the future of potatoes in Sri Lanka?

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