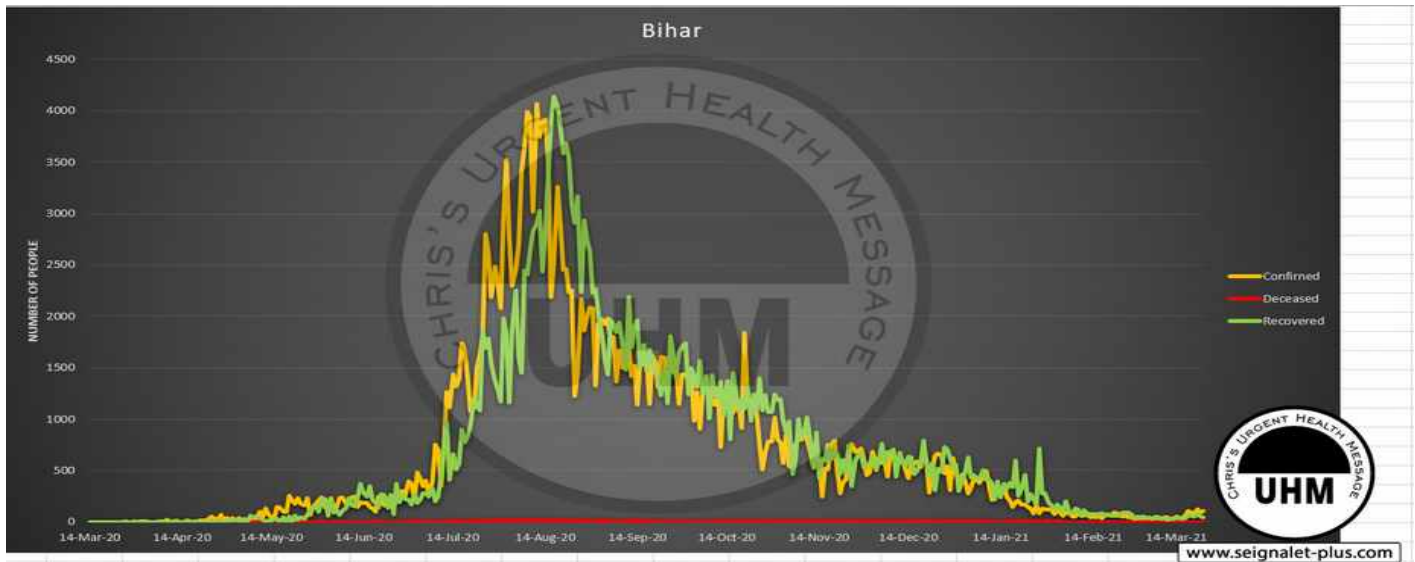
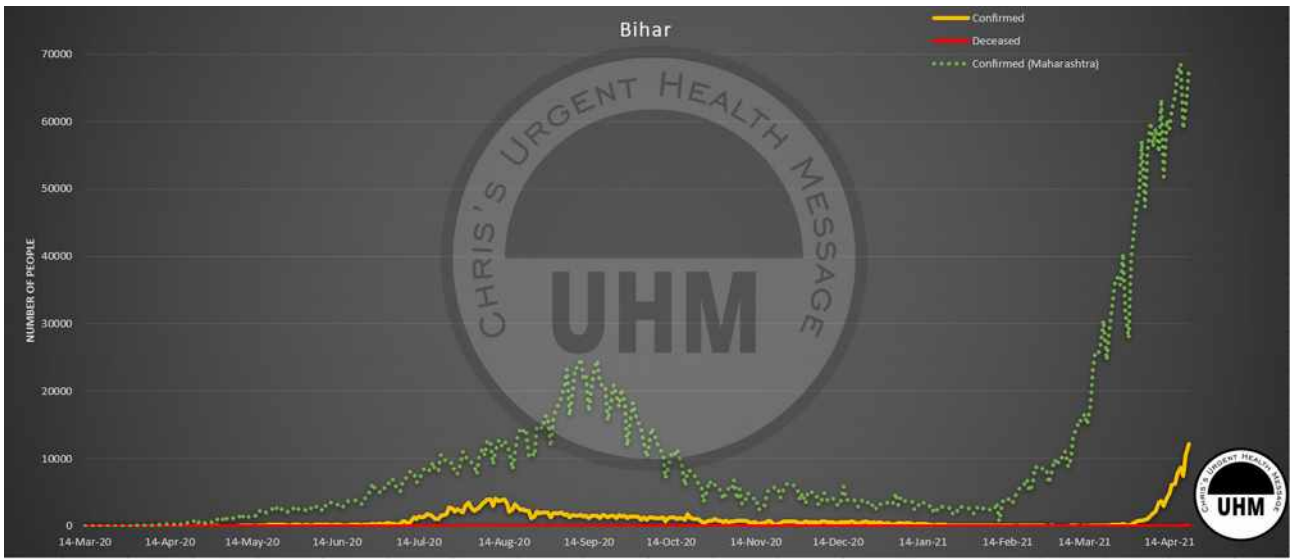


State name: **Bihar** See end for Chris' comments



Population: **124,799,926**

Bihar, India

297 total active cases as of 9 March 2021

* as on 9 March 2021

Cumulative Infection Rate

99.79%

For overall population: **0.21%**

1 in 475 contracts corona

Cumulative Death rate

99.9988%

For overall population: **0.0012%**

1 in 80672 dies of corona

Risk of dying from coronavirus

99.41%

For infected: **0.59%**

1 in 170 dies of corona

Bihar				
Population: 124799926				
Dates	15-Apr-20	15-Sep-20	15-Dec-20	15-Feb-21
New cases	6	1575	572	44
New Deaths	0	5	4	2
Risk of dying from coronavirus	0.0000%	0.3175%	0.6993%	4.5455%

Cumulative death rate: **0.0012%**

<https://www.seignalet-plus.com/> ©

source: <https://www.covid19india.org/>

State name: **Bihar**

See end for Chris' comments.

Average serum vitamin d: 30 ng/ml (Sufficient but borderline)

Coronavirus Statistics to 15th February 2021

Population 125 million (English system) 12.5 crore (Indian system)

Infection rate	1 in 475	Lowest infection rate in India
Death rate from coronavirus per capita	1 in 80672	4 th lowest mortalities per capita in in India
Death rate among those infected with coronavirus	1 in 164 ,	10 th lowest mortalies among infected in India

Chris's weighting system to explain number of infections and mortalities

Average temperatures

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Daytime °C	16.2	19	25	30	31	31	28	28	27	25	22	17
°F	61.16	66.2	77	86	87	87	82	82	80	77	71	62
Night time °C	10	13	18	23	25	27	26	26.1	25	21	16	12
°F	50	55	64	73	77	80	78	78.9 8	77	69	60	53

8 Months of the year when it's pleasant go out in the sun. (Around 25 - 30 c or 77 - 86 f)

Climate is mild – little seasonal variation in temperature and nights are warm

Main Monsoon (whole of India)	Winter Monsoon (Affects South East India)
x	

Percentage tobacco use	Average for India as whole	Position among states
25.90%	28%	16 th worst

Air Pollution levels

Low	Medium	High
		x

4 out of 5 Bihar cities have an “unhealthy” air quality index ranking at time of writing. I believe that this is due mainly to the common Indian practice of burning rubbish.

Statistics taken from the The India State-Level Disease Burden Initiative
<https://phfi.org/the-work/research/the-india-state-level-disease-burden-initiative/>

Bihar			India as a whole (average of all the states)	
	Chronic obstructive pulmonary disease (COPD)	Lower respiratory infections	Chronic obstructive pulmonary disease (COPD)	Lower respiratory infections
Years of life lost	4.4	9.4	4.7	6.3
Ranking among other diseases	6	2.5	6	3.6

Average serum vitamin d of population

Severely deficient (less than 20 ng/ml)	Deficient (less than 30 ng/ml)	Sufficient (above 30 ng/ml)	Highly sufficient (above 35 ng/ml)
		x	

Note: 30 ng/ml is only borderline sufficient (per Holick) but due to the pleasant climate I think this would be maintained throughout the year.

Farming	Forestry, logging	Coal and steel, mining	Commercial/Government metro	Manufacturing metro	ITHub (City)
x	x				
Tribal 1%	Power generation	Handicrafts	Shipbuilding	Tourism	
	x	x		x	

Percentage of the population which is tribal 1%/

Ayush distribution to population by state government or NGO's: Kadha, Arsenicum Album etc.

Intensive (to entire population)	Mainly to "warriors" (police, health workers etc.)	No distribution of Ayush medicines
X(15000 people in patna city)		

Mass distribution of preventative allopathic medicines like Ivermectin to the population

Yes	No
	x

Sale of coronil allowed

Yes	No
x	

[State share of in migration](#) and out migration based on 2001 census – page 15 figures are rounded up (I could not find more recent statistics)

Bihar	In migrants	Out migrants	Share of in - all India migration %	Share of out – all India migration %
	0.46 million	2.22 million	2.8	13.4

[Human development Index](#) (HDI is a composite index that takes into consideration (1) health, (2) Education and (3) Per capita income.)

HDI for this state	Position among states (starting from best position)	India’s HDI (average of all the states)
0.576	36(worst)	0.519

[Percentage of slum dwellers in population](#) (see page 14): 11% 5TH worst in India

Treatment of severe infections

Plasma therapy	Cuban interferon	Other Innovative allopathic	Standard therapy only (as in UK or US)
x		x	

See my comments at the end

What is the Ministry of Ayush?

<https://www.ayush.gov.in/index.html>

Ayurveda, Yoga, Naturopathy, Unani, Siddha, Sowa-Rigpa and Homoeopathy (abbreviated as **AYUSH**)

The AYUSH ministry of Government of India promotes the development of education, research and propagation of indigenous alternative medicine systems in India.

[Report MAY 28, 2020 timesofindia](#)

HCQ was used as preventive treatment

“Associate professor in the department of medicine at JLNMCH, Dr Choudhary said that clinical trials of hydroxychloroquine (HCQ) in more than 60 Corona positive besides as prophylaxis (preventive treatment measures taken to fend-off diseases) in more than 350 corona suspected patients, attending doctors, paramedical staff and healthcare workers at the isolation wards of JLNMCH have yielded wonderful results....”

For severe cases

[Report Tue, 28 Jul 2020 livehindustan](#)

ECOMA treatment was used

Report states: “..No ventilators are required if this treatment is given...”

*“..According to Dr. Sanjeev Kumar, Nodal Officer of AIIMS, Patna, **ventilator will not be needed** , the process of continuing the supply of blood to the body by giving rest (steady) to the heart and lungs is called ecoma therapy method. Treatment with this method does not require the patient to be taken on a ventilator. At present, despite the facility of ventilator, there is no special success in protecting the life of serious patients. Therefore, the study of Ecoma being carried out across the country is being studied in AIIMS, Patna. This experiment is being done in Bangalore and Kolkata...”*

Notes: This report is in Hindi. Wait for google to translate to English. What is “ECOMA”. It seems that this is the use of [ECMO](#) as a first resort instead of its usual use as “last resort” when all else has failed. Apparently this is part of a clinical trial so the doctors using it are not going out on a limb in using innovative therapy but have the excuse that they are doing an experimental trial.

Vaccination started 16th January

Vaccines used:

Covishield

And covaxin

Side effects:

72 cases of side effects out of 88000 were reported till 26 January 2021

Deaths

Report MAR 03, 2021 Hindusthan Times

23 year old medical student died, 22 days after taking first dose of vaccine

Numbers vaccinated and dates.

[News Services All India Radio February 3rd 2021](#)

“...In Bihar, a total of 55 thousand 989 healthcare workers took the second dose of Covid-19 vaccine during the past 24 hours. So far, 5 lakh 81 thousand 853 beneficiaries have been inoculated with vaccine doses since the start of vaccination drive in the state.

Meanwhile, two lakh 60 thousand 147 patients have recovered from the COVID-19 infection in the state so far. COVID-19 recovery rate has improved to 99.20 percent in Bihar.

The number of active cases is continuously declining. Currently, only 560 patients are receiving treatment at various hospitals. No positive case has been reported from 15 districts....”

Chris's Comments:

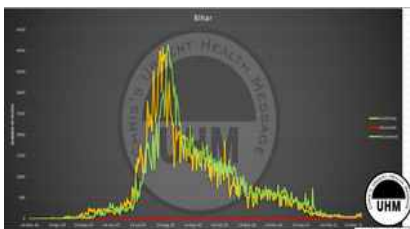
Bihar is a very interesting case. It's an outlier for these reasons:

1. Very low infection rate. Up until February 15th, the end date of my study, it had by far the lowest infection rate in India at 1 in 475. The next lowest was Uttar Pradesh with 1 in 394.
2. It also has a low coronavirus mortality per capita. 4th lowest among Indian states and UT's.
3. It has an excellent survival rate for those infected. Only 1 in 170 infected dies.

10th lowest among Indian states and UT's. Compare this to 1 in 34 in the UK!

First of all let's dispense with spurious reasons given in some articles like this one in [Wired India](#):

“...In a previous article, this author had examined two possible explanations for Bihar's COVID-19 data: slow spread of the disease, or poor disease-surveillance. Recent data indicating that a large number of people in Bihar had been exposed to COVID-19 by August suggests that weak disease surveillance is the main factor. The data paints a stark picture of very poor detection of infections and probably very many missed deaths, and also contradicts the notion that the spread of the novel coronavirus is necessarily slower in rural areas...”



Yes. There was a spike in Bihar in August 2020. But it was quickly over. As you can see in my dashboard infographic here. But the sharpness of the spike would indicate that reporting was good. If it wasn't, the curve would be all over the place. Notice also that the spike and the subsequent rapid fall off happened in August a whole month before the similar spike and falling off a cliff happened in September in India as a whole.

So let's look at **1. Very low rate of infection.** It's been suggested that in some states with high tribal (avasi) populations, the consumption of red ant chutney, the traditional avasi remedy for colds, flu and breathing difficulties saved the day in those states. This cannot be the case in Bihar because the tribes make up only 1% of the population. In the capital city of Patna the Homeopathic preventative Arsenicum Album was distributed to 15,000 people. But this was only a trial. Patna has a population of 2 million. Here are my theories as to why the infection rate was so low:

a) Bihar has a very pleasant climate. For 8 months of the year it's agreeable to go out in the sun and UVB rays hit the earth all year round here, although less in the winter months. But Bihar has no real winter to speak of. Bihar is very fertile and the population works mainly in agriculture. There is a [Union government scheme](#) which guarantees 3 months of manual labour. So migrant workers sent home from states like severely deficient Delhi or Maharashtra in the 2020 lockdowns would have been outside working in agriculture or on infrastructure projects and getting sun exposure to make vitamin d and would quickly have raised their levels. Biharis like to grow things according to my correspondent in Bihar and people locked out of their employment fell back on cultivating vegetables either in their own gardens or on tenant farms.

All this to explain that the average serum level of vitamin d of Biharis is 30 ng/ml. Which is (just about sufficient (per Holick) [Many studies now show](#) that with sufficient level of vitamin d you are very unlikely to get infected, yet alone die. (Watch my bitchute video where I walk you through the studies).

According to my correspondent, Puja (see transcript of interview at the end) everyone was drinking their Kadha which included among other things the magic ingredient: Tulsi, with its dozens of therapeutic properties including immune modulation (to prevent cytokine storm). My correspondent says that everyone in Bihar grows Tulsi in their garden. Tulsi is a sacred plant in Hindu belief. In addition to Kadha, Biharis drink hot lemon water in case of colds or flu. They drink it out of metal beakers so boiling water can be poured straight onto the lemon juice. (My correspondent in Maharashtra state pours the water warm onto the lemon juice.) This might seem counterintuitive as the heat might damage the vitamin c but see my article on AYUSH remedies for coronavirus. It looks like it would be highly effective.

Now let's look at 3. **Death rate among those infected**

1 in 164. Compare that with the UK's rate of 1 in 34. Why so low? I attribute this to 3 things. (Pay close attention to the third one because it's a very interesting innovation in terms of ICU protocols)

a) As we have seen, Biharis have an average serum vitamin d level that is **sufficient**. So if they were infected it would not be a serious infection. What's more, there may have been a preponderance of migrant workers returning from low vitamin d level states during the lockdown who were infected although I have no evidence to support this. It's just a theory.

b) Hydroxychloroquine (HCQ) was given to positive cases to prevent the infection becoming severe. Plasma therapy is also used. (It's used in several states and UT's in India).

c) [According to this Hindi media source](#) translated into english by google, a Patna (capital of Bihar) hospital was dispensing with ventilators in severe cases and using something called ECOMA as a experimental trial. This sound like they are using an [ECMO](#) which is a machine to oxygenate blood remotely. In cases where the heart is struggling to function a canula is placed into a vein, blood is extracted and oxygenated in the machine and then infused back in a canula placed in an artery. Alternatively a canula extracts the blood from a vein, it's then oxygenated in the machine and fed back into a canula in another vein. An ECMO has traditionally been used as a last resort as life support when ventilation has failed and the patient is in a coma. Use of an ECMO is billed at \$35,000 in a US hospital! So here it's being used as a first resort instead of ventilation rather than as a last resort when ventilation has failed. I think this is the only case of an ECMO being used in this way. It's also being trialled in Bangalore and Calcutta according to the article.

2. **1 in 80672, death rate per capita.** This is the 4th lowest of the 36 Indian states and UT's and I think it's due to enthusiastic drinking of Kadha and hot lemon water by Biharis to ward off infection in the first place, their high levels of serum vitamin d compared to other states - either preventing infection or ensuring that any infection is only mild, HCQ given to all positive cases as a preventative and then plasma therapy and ECMO given as first resort instead of ventilation in severe cases.

Interview with Puja, a Bihari

05 APR 2021 · 8:58 AM

Hi, What is your first name please?

Hi

I am Puja

How are you?

Hi Puja, Is Raxaul in Bihar?

Yes

OK. I just looked it up. It's on the border with Nepal.

Yes

Where were you in June, July last year?

I was in Raxaul

OK. I just want to ask you some questions about coronavirus. It won't take long.

Let me know what you want to know..

So during the lockdown in Bihar in June and July the transport in and out of Bihar was blocked. Correct?

Yes

Except Food Stuffs

First I want to know how people were getting food and what were they eating?

There was a time allocated for people to buy food/vegetables from morning 5AM to 7AM

Where do people buy food. In outdoor markets?

Yes

So food was coming in from outside Bihar as well? As much as normal?

Not really.. because vegetables are most likely grown here. But for Grocery items, it was from outside as well..

So was there much/any change in diet during that time?

No junk/packed food. Only home made food.

So people were cooking from scratch much more than usual?

Yes

People could take time to cook good meals because they were forced to be at home. Correct?

For some yes!

For some No as many of us have good cooking skills.. and people at some point enjoyed being together and cooking together..

OK.

Were people eating more fruit than usual?

People ate less fruits, because the prices were too high for one to afford during the time of lockdown where people had no earnings.. so most of them eventually spent on buying vegetables rather than fruits..

Oh. OK.

What about pineapple. Bihar grows a lot of pineapple I think.

We did not find it in Raxaul.. Mostly we had apples, pomegranate, oranges in the market.. And yes Coconut Water!

Are pineapples grown around Raxaul? Or is it the wrong climate?

No, its grown in Bihar too.. but it wasn't in the market at that time

OK. Was it in the market any other time?

Yes, after the Lockdown

Around what time?

Oct-Nov

OK.

I will explain why I'm asking these questions at the end.

ok

Now I want to talk about what ayurveda people were using to to avoid infection.

As you are on the border with Nepal do people use Tibetan medicine at all in Bihar?

No.. not really.. People used to take decoction, comprised of herbs like Tulsi, Turmeric, Cloves and many more

Kadha.

Yes!

Was everyone drinking kadha every day?

Yes almost everyone..

So they were making it at home?

Yes..

Were people taking anything else?

Nope

What about chyawanprash?

Not much.. but people also took Hot lemon water

Let me look something up a minute.

Sure

How hot do you make it?

Generally, we boil it.. half of lemon.. and drink it slowly as it cools down..

Tell me how you make it exactly.

Boil water.. squeeze half of a lemon in a glass, pour the water into glass and drink it slowly like tea

OK, Gotcha.

Are there any patanjali shops in Bihar? They would be in Patna I think which is 5 hours from yourself.

Yes.. a lot of Patanjali Shops

Any in your town?

Yes.. we have 2 in the market area

OK. What about Baba Ramdev's coronil? Were many people using that?

We did not try it as it was a situation like Curfew so we did not go outside much..

OK. So you don't think many people used it.

May be..

Because that was a time, where people had fear in coming in contact with others..

OK. What about kadha. Were were you getting supplies to make kadha? From the market? From your garden?

It's available in every home.. in garden

So everyone grows the herbs to make kadha in their. garden?

Tulsi is the main ingredient.. and it is found in every home..

Everyone grows it in their garden?

Yes..

Ah, Ok. I'm seeing some light. ;-)

In our religion, we worship Tulsi Plant so we find it easily in every home.

You mean Hindu religion?

Its good for Cough and sore throat..

Yes

OK. What is your recipe for Kadha?

Ok.. we generally boil some water (a glass for a person) add some tulsi leaf, some turmeric, few cloves, little ginger, some cinnamon stick, and black pepper.

Boil it until (a glass turns into a cup of water) Strain it and its ready to drink.. Drink it hot..

OK. And everyone in Bihar was doing this?

And if you have a little cough or soar throat or runny nose, you too can take some steam at home itself.. That's how we did

Yes.. everyone did more or less same..

Some added honey for their taste, some added salt..

Depends on their taste

How do you take the steam?

Take a huge bowl and boil water it completely..
Place it on a table, using a Towel to cover your head and Face.. take the steam slowly (inhale and exhale)

So your nose drips?

It like, you lean over the bowl and breathe in the steam as you can!

yes.. steam will relief you from runny nose and cough..

OK. Do you know if people in Patna were doing anything different?

If one does it for 2-3 times a day about 10-15 minutes.. it heals up everything

Ah, ok. Gotcha.

No.. this was the common approach everyone had taken

OK. So tell me more about the steam. Would you do that just as a preventative measure or only when you felt a cough or temperature?

Only when I feel cough or have runny nose

OK. I think that's everything. Now I will explain what all these questions are for.

ok

You want to know right? ;-)

If you can

OK. I live in the UK. We have been hard hit by coronavirus. India has done much better. I have a health blog. I'm into what we call "alternative medicine". So I don't believe much in allopathic, "big pharma" medicine. I'm very interested in Ayurveda.

I see

Than, you got the best answers

Do mention about Kadha, hot lemon water and Steam in your blog

I wrote an article on how India beat coronavirus. You can see it here:
<https://www.seignalet-plus.com/breaking-coronavirus-is-nearly-over-in-india-we-tell-you-why/>

Sure

Also.. have a look for Tusli Plant if you can get one in your place.. It has a lot of medicinal values..

So now I have been working on the story state by state. Bihar has the best record. Lowest infections. Cases in Bihar peaked and then fell off a cliff in August, a month earlier than India as a whole or other states.

Yes..

Give me a minute. I will show you the infographic for Bihar.

ok..

Are you there?

Yes. I'm here. My computer froze. I had to turn it off and switch it on again.

OK. Let me show you some infographics. First UK.

Ok

United-Kindom.png

Now India.

India.png

So we have no ayurveda in UK. You can see the difference!

Hmm ya

Now Bihar.

Bihar.png

So why was Bihar doing so much better than the rest of India for infections?

First of all, the climate is pleasant. People stay outdoors. The sun hits their skin and makes vitamin d. Vitamin d stimulates anti-microbials in your body and especially in your lungs to kill viruses.

Also, Bihar is agricultural, rural. So people are working in the fields and getting plenty of sun.

But there are state in India where people have even higher rates of vitamin d and their rate of infection is higher.

So why is Bihar the outlier? I thought it could be pineapple. A study has shown that Bromelain in pineapple kills coronavirus.

Yes! That's a good point.. As Bihar has fertile land and hence lots of vegetables are grown here.. many people also took it as their day today lifestyle where people had nothing to do and with agriculture they could work and earn as well..

So do you think with the lockdown people were out in the fields more? Growing vegetables to make some money because they were out of work during the lockdown?

Yes! People started with kitchen garden.. more into farming..

People's mindset was, rather going outside and getting in contact with other people, it was nice to stay at their own place and live their life.. This is not possible in any of the metro cities.. where everything is far away from people's approach.. for example.. a very basic thing drinking water.. you can get to see a lot of hand pumps in Bihar which would be free for anyone to use.. but in Metro cities, you need to order water tanks..

So in brief, people in Bihar saved themselves in getting contact with others.. stayed at home (like isolated) and did some home remedies to boot their immunity

When was the first lockdown? March/April/May/June/July?

March

When did people go back to work?

Oct - Nov.. some (because mostly people opted to work from home)
And slowly in Dec people started working full fledged

OK

But if people were at home they started growing vegetables in their gardens?

For something to do to stop themselves going crazy, to make their own food and maybe even sell some?

Yes, that saved their money and also getting them in contact with others.. Got fresh and chemical free vegetables

Major People in Bihar are illiterate.. Farming and agriculture has been their first preference..

And that's what other people opted too..

So did you grow vegetables yourself during that time?

Just Tomatoes

OK. So were you outside all the time growing your tomatoes?

No not at all..