SERIES INTRODUCTION
In the year 2050 there will be 9 billion people. How do we feed them safely, fairly and well? And make sure very mouth is fed.

COMMENTARY
Forty year old Man Mohan Tiwari was working for a top financial firm in India’s thriving capital, Delhi. A thousand people reporting to him. He had it all. Then he gained weight - and lost confidence. His fight with obesity had began. Now – in the last year - he’s lost thirty kilos.

Man Mohan Tiwari
My weight was around ninety-seven kilos when I started in February 2011 and I have reduced it to around sixty seven, sixty eight, within nine months.

I used to look very un-persentingable. There was a time that I used to feel it’s not possible for me to lose weight - life is so hard in a nuclear family, where husband and wife are there, and both are working. If they come back in the evening at eight ‘o clock, now what to do?

It is better for them to order a fast food kind of thing – rather than cooking a chapatti, rice, Daal and Sabji…

COMMENTARY
For Man Mohan, future food is healthy food – he’s cut the junk food sugars, fats and salt. And says there’s a lesson for us all.

Man Mohan Tiwari
Let’s live a long life and a healthy Life, by having discipline and good food.

COMMENTARY
Man Mohan’s won the battle – prosperity without obesity. Now the rest of the world faces the same dilemma - how to feed the future without a new kind of malnutrition.

Present Nwanze
As people have better incomes, the diets change, the culture changes - they want processed food quick, fast. Double career families, they all come back from work at about six, seven, eight pm - what is the fastest food to cook? Open the can, open the packet and dump everything together - it’s junk food.

COMMENTARY
Every day, as India awakes, one point two billion people need to be fed. By twenty fifty, it could be one point seven billion.

Traditionally Indians have eaten the healthy cuisine of India’s twenty-nine states. But as people move to the cities there’s a growing demand for fast processed food. The so-called junk food accused of causing obesity and chronic health problems.

Now, India’s a country on the edge of two possible futures. A future that’s well-fed and healthy. Or a future with Western diets and Western obesity.
Student
Now we are going into this whole Western sense, we think about burgers, we think about French Fries - so it’s like the Hamburger Assault!

Student Arya Mik Sen
I like eating junk food at times, it’s not like I hate healthy food.

Student Snigdha Bose
Like, just banning junk food in school doesn’t stop us from having junk food…

De Schutter
As people have moved into the cities, they've become dependent on highly processed foods which are heavy in sugar, in fat, in salt - which are processed in order to have a long shelf life. Instead we must allow urban consumers to have access to fresh nutritious foods that are produced locally because that is most healthy.

COMMENTARY
Tulika Verma lives in the Delhi suburbs. She doesn’t do junk food. She eats nutritious fresh food with husband Rahul and their son and daughter.

They’re appalled there’ve been no systems or guidelines in India to keep junk food away from schools, where they feel children are especially vulnerable.

Tulika
I don’t rely on junk food because we are not sure what kind of ingredients they have and its preparation also.

Rahul
These kinds of foods can make them happy for a few minutes - but in the long term…

Tulika
It will increase the problems that they are facing.

COMMENTARY
Tulika and her husband run an NGO – the Uday Foundation - helping children with serious medical conditions. Mostly it’s disease or genetic defects but for many city kids like these, junk food is an increasing issue.

Tulika
What we noticed that some children are having health problems which are inborn or due to some disease. But some children are getting into it due to excessive consumption of junk food in their routine - and that is really harmful for their health.

COMMENTARY
Malnutrition – experts say – can be an illness carried across the generations - especially by women. And prosperity is no guarantee of an end to malnutrition.

Prof Shirin Joshi
Well, malnutrition is not that correlated with wealth in India. What you find is malnutrition can take a variety of forms - you can have low calorie malnutrition, you can have high calorie malnutrition. In the developed world, we are seeing an era of high calorie malnutrition. In the developing world we are seeing both.
What I think is happening is very rapid economic growth is putting wealth in many new hands in contexts like India. So you have children who are born of mothers, who were, you know, poorly nourished. And yet as they grow up they get access to more and more fat more and more protein.

We find that children of low birth-weight, children with poor early childhood health, are at more risk of becoming obese, developing heart disease, developing diabetes, developing stroke – those poor health indicators in early childhood give them a propensity to contract these type of illnesses later on in life.

**COMMENTARY**

School kids in India are less likely to be overweight than young people in China, Russia, Brazil… and the USA, where one in six young people are obese. But it’s far from being entirely good news.

Delhi-based Dr. Anoop Misra is one of the world’s leading experts on nutrition and obesity. He’s specially concerned about junk food’s impact over time.

**Dr Anoop Mishra**

I think it is damaging to all age groups… but the earlier you start the worse it is because, if you start at the nine or eleven year age group - and we have studied this particular age group - the obesity tends to become much more harmful within a short period of time and these children exhibit a whole lot of bio-chemical problem that we find in adults.

**COMMENTARY**

US-based writer on food Raj Patel has studied the effect of growing prosperity on India’s diet and health. He says a switch to processed food is already taking its toll.

**Raj Patel**

If you walk in the streets, you won’t notice people who are as overweight as they are when you’re walking in the streets of New York.

But appearances can be deceptive and actually if you look at the obesity – if you look at the diabetes rates - India’s cities have diabetes rates that are far higher than the United States. If you look at some of the southern cities in India, diabetes rates are at twenty per cent - now that’s an epidemic.

So things are already very bad in India and that’s a mixture of the shift in diet, plus the genetic predisposition and a range of other social and biological factors. So things are already apocalyptically bad in India.

**COMMENTARY**

Junk food gives the body energy without fibre, vitamins and other nutrients. Critics claim that can cause a health time-bomb - potentially causing serious illnesses like diabetes later in life.

**Dr Anoop Mishra**

Now these kids who are developing these obesity problems from nine to sixteen years age group will develop diabetes very soon, maybe by the age of twenty to twenty five… And by thirty they will develop other complications maybe heart disease…

**Raj Patel**

My advice to the Indian government is to take this very, very seriously. To look at what we already know about the causes of diabetes and to get very aggressive with limiting the exposure - particularly that children have to the marketing that encourages children to want these goods.
But also to start getting very aggressive about thinking about new ways in which diet in urban areas can be transformed to leapfrog the public health issues that we already have in the United States, and to deal with the massive public health issues that they already have in India.

COMMENTARY
A recent study revealed that already over one in six schoolchildren in Delhi are overweight - and almost one in fourteen are obese. It's one of the reasons why the courts are considering a call for a ban on junk foods in India's schools.

Among the petitioners leading the campaign are... the Uday Foundation's Tulika and Rahul. Today they're in court calling for India's Food Safety and Standards Authority to set up a new framework for the future of food in India's schools.

Tulika Verma
Today we had a date in High court regarding banning junk food in schools. Junk food should be banned. The government is very serious about this issue because it's related to the future generation of our country. We are expecting that FCCI might get the guidelines for banning junk food in schools. That's what we are fighting for.

COMMENTARY
Twenty first century life is fuelling a demand for quickly delivered food – fast food that's too often unhealthy junk food. A younger population, more working women, hectic schedules, the increasing wealth of middle-class professionals – usually office-based.

Some say – it's not so much fast food as these new more sedentary lifestyles which cause obesity. And what's more, people have every right to eat what they want.

Barun Mitra
I am against laws that some people might be calling for to ban fast food or even junk food. While this might be an issue for a tiny segment, of India it's not an issue for most others who are struggling just to get their mid-day meals at school.

So how is this going to work? Would it mean that you extend the law to - say - tell parents what they can feed their own children or not?

COMMENTARY
In Delhi, fast food is not just Western-style burgers and pizzas - but Indian equivalents like fried bhaturas, fried pakora and aloo tikkis. The fast food Industry in India is growing by a third a year. But does convenient fast food always have to be unhealthy junk food?

Devyani International operate the north and east India franchises of KFC and Pizza Hut, and their own Vaango chain based on South Indian food. Their CEO says fast food in India has an unfair reputation.

Virag Joshi
My personal take is that anything that you over consume is bad for your health, anything that you over consume. When you look at the fast food, it's quite healthy, I would say.

We use, I give you an example that we use zero trans-fat oil; we've got a lot of salads, we've got a lot of soups, options here. So my personal take is that fast food is not so bad as people perceive it to be.
COMMENTARY
It’s not just the big chains promoting the idea of healthy fast food. Tulika is visiting famous nutritionist Ishi Khosla. Remember Man Mohan? Ishi Khosla’s the woman whose healthy-eating advice changed his life.

Ishi Khosla
Nice to meet you

Tulika
Came to have a look at your outlet, you are offering very healthy options.

COMMENTARY
She’s founder of India’s Whole Foods - and she’s been called one of the country’s “twenty-five most powerful women.”

Tulika
Is it a status symbol also to have junk food or fast food?

Ishi Khosla
It becomes a trend, like a peer pressure or whatever.

COMMENTARY
Future food could be health food - disguised as ordinary pizzas, sodas, or burgers.

Ishi Khosla
You don’t say ‘no’ to a burger, you make it healthier. You don’t say ‘no’ to a cookie, but you make it healthier. Even the patties here have flax seeds in it. And we are using fantastic oil - rice brand oil which is mono unsaturated fat.

So you silently do the health thing without the person getting the tag that I’m eating something very different.

COMMENTARY
But can the global obesity epidemic be solved at the retail level?

Some say obesity’s fundamental cause is the way food’s produced – the industrial, often subsidized, farming of a few crops, transported over huge distances and heavily processed.

So is there an alternative? Tulika’s been doing some research - looking at TV films on how most food’s still grown in India.

COMMENTARY
There’s Narayan and his wife Narsiva in Andhra Pradesh. They use a blend of traditional knowledge and scientific techniques to grow seven different varieties of crops and vegetables - on just a hundred meters of land.

They only make about two dollars a day… but that’s still more than many small farmers in India and the rest of the world.

Sachin Gaur (translation)
Are you making money?
Narayan (translation)
Yes I am.

Sachin Gaur (translation)
Do you eat your produce or do you sell it as well?

Narayan (translation)
We eat the produce and then sell it as well.

Sachin (translation)
So who taught you …..

COMMENTARY
Half a billion small-scale farmers like Narayan still supply most of India’s food. For some who believe in market-driven economics, this is not efficient.

They say that in more advanced economies farms are bigger, and specialize in just a few crops – benefiting from economies of scale. That means fewer farmers who are - per person - more productive.

Barun Mitra
The number of people who are dependent on agriculture is not a sign of our strength it’s a sign of our weakness. Every country which has developed agriculturally requires a very small percentage of the population capable of feeding the rest and beyond.

A few years ago there was a big survey in India which found forty per cent of Indian farmers want to sell and move out. But they can't. Because where will they go?

India is often the number one producer in terms of volume but way behind in terms of productivity. And this is a price that the farmers tend to pay - the poverty in agriculture is a reflection of this low productivity.

COMMENTARY
But there’s another vision of future farming. Tulika’s driving two hundred miles north of Delhi to Dehradun. She’s here to meet Vandana Shiva. She’s a globally famous development expert and the force behind the Navdanya network of organic farmers.

Tulika wants to know their answer to obesity and malnutrition.

Tulika
In a country like ours there are so many healthier ways of growing crops, healthier ways of making food - still we are going for the trap of this western junk food, which is harming us, our future generations also.

So what, according to you, is the way to come out of this trap and what option can we offer to our future generations?

Vandana Shiva
You know this country is a land of diversity -anything you touch here is a source of nutrition. Behind you this beautiful Kadi Patta that the South Indians put in all their Rasam and Sambar - one of the richest sources of Vitamin A. I don’t think there is any culture in the world that eats as much diversity as the Indian cuisine.
Why are the fast foods of the West so wrong for our body? First, actually they are not fast - if you take the full chain of supply food was taken, processed, frozen. So it's actually a very long chain. It's not a quick food, it's not a quick food.

**COMMENTARY**
In future – say Navdanya – Indians could eat far more like they do here, cooking a rich variety of healthy indigenous crops.

**Vandana Shiva**
Now, if we were to take a tally of our everyday eating, my guess is that a minimum of twenty five plants go into our food – zeera, sarsoo, this turmeric that's growing all over out there – now known to be an anti-biotic, now known to be good for Alzheimers and memory... the world is just starting to discover the wonders of indigenous Indian cuisine.

We are letting them disappear, So we get rid of our food diversity, but that means we get rid of our bio-diversity, all the crops that could give us healthy and good food.

**COMMENTARY**
So Vandana Shiva's recipe for future food - eat local, eat seasonal, eat traditional.

**Vandana Shiva**
So the answer to healthy eating is right here on our land and right here in our culture. It's time to stop the inferiority complex that everything from the West including the junk food is superior. We need to be discriminating and choose healthy, including that which comes from our own heritage.

**COMMENTARY**
Beeja Didi works closely with Navdanya, saving the seed of indigenous crops. Crops that could become future food.

**Beeja Didi (translation)**
Right now we have five hundred and sixty varieties of paddy rice, and a hundred and fifty varieties of wheat, which I have stored here.

These are pure seeds just like we have in the hills. Our work here is to preserve the seeds that are becoming extinct, like certain kinds of paddy rice, wheat and barley. Wherever we can find these seeds we preserve them.

**President Nwanze**
Small farmers grow a multiplicity of food items – today our diets are restricted to four perhaps five crops: corn, wheat, barley, maize... rice, sorry.

Four major animal meats: chicken, pork, beef, lamb. Go to any rural areas - small farmers are actually the custodians of that biodiversity they are growing, so-called orphan crops. More nutritious. These have been conserved from generation to generation passed on.

Today modern society is restricted to what is on the commercial market. So their role is not only of preserving biodiversity - also preserving good diets.

**COMMENTARY**
On the journey back home, time for a quick chat with some of India's small farmers.

**Tulika (translation)**
Hi, I am Tulika, I have come from Delhi and wanted to ask you - have you heard of “junk food?”
In cities people don’t have time to cook proper meals like you do when you harvest fresh and eat fresh. They eat things like pizzas and burgers.

**Thakur Das (translation)**
Oh, yes, they get ready made food and all they have to do is to heat it and they call this ‘fast food’. All they want to do is fill their stomachs - I think it is quite unhealthy.

**Tulika (translation)**
So you mean it doesn’t have the required nutrients?

**Thakur Das (translation)**
No they don’t have any. People eat this to fill their stomachs because it’s tasty.

**Tulika (translation)**
Have your kids ever eaten chips, burgers, pizzas? Have you ever eaten junk food?

**Mukund Lal (translation)**
Forget having eaten it, I am hearing this name the first time ever from you.

**COMMENTARY**

So could India’s small-scale farmers do more to feed the future healthily? One problem – there’s far too much fresh food still being wasted.

**Barun Mitra**
We have one of the smallest share in processed foods… A consequence of that is enormity of wastage, particularly in fruits and vegetables on a daily basis.

The estimate is that thirty percent of the fruits and vegetables rot even before they come to the market, so the processed food and the fast food industry could play a huge role in reducing this level of wastage.

**COMMENTARY**
But supporters of small scale farmers say there’s an answer. Studies show small farms are very efficient per acre – and rural jobs often badly needed. So why not make it easier to get indigenous fresh food to market - with better distribution and infrastructure.

**President Nwanze**
Basically, policy has to be such that we invest in rural development as well as investing in agriculture.

**Interviewer**
How does that help with obesity?

**President Nwanze**
You eat better! You eat better food. You stop eating canned and packaged food that come from the Western world. Or from factories in the urban areas. It helps you diversify your diets.

Obesity is a form of malnutrition, poor diet. It’s not just simply having access to food – having access to the right food at the right time.

**Dr. De Schutter**
The role of government should be really to rebuild local food systems and to use fiscal and regulatory tools to encourage agriculture to shift to the production of foods that are diverse, that...
provide a full range of micronutrients to those depending on those foods - rather than to focus on a narrow range of commodities that are inputs to the food processing sector.

**COMMENTARY**
So what happens when the future generation is asked to decide for itself? Could it be what happened in Sardar Patel Vidyalaya, one of Delhi’s top private schools?

The pupils were given a vote. They declined to ban junk food. What they did vote for – a policy to buy only fresh produce wherever possible cooked according to India’s many local cuisines.

**Anuradha Joshi – Principal, Sardar Patel Vidyalaya**
We are very aware of the wonderful diversity of food that is available in our country - that is suitable to the climate of our country. It is easy to digest. It is healthy, it has a huge variety.

We are not saying no to non-Indian foods, no, we are not. But we would pick up the healthier options too because feeding children is a responsibility.

**COMMENTARY**
To encourage healthier choices of food in the school, students in the early grades are fed a daily mid-day meal. A balanced, nutritious and tasty way to build good eating habits early on.

**Student**
Delhi is so culturally diverse, we have a multitude of food preferences that can be achieved anywhere…you go to the street there are street vendors. So when you think about fast food, why are we just limiting ourselves to this Western idea of fast foods - there are so many healthy variations that you can find everywhere.

**COMMENTARY**
So how to feed the world without obesity? Is it a question of consumer decisions – or agricultural policy?

**Raj Patel**
Hello it’s Raj here, can you hear me?

**COMMENTARY**
Tulika’s talking on Skype with Raj Patel.

**Tulika**
So can the problem be settled at the consumer level or retail level? Where can we settle this problem?

**Raj Patel**
No - it’s a great question! If you look at the way commodities are produced today, and the way food is produced today, it is very much a bulk commodity. And for as long as we shift our agriculture towards producing the kinds of crops that end up being either in the United States turned into corn syrup - and destined to be turned into these processed products - um, then, you know, we can see the sort of trend of increasing obesity and diabetes and the rest of these problems continuing.

So I do think that we absolutely need to shift the way we market our food. But I also think we need a change in the way food is produced - and a change in the control over how food is produced - I think maybe this is the big issue for me.
COMMENTARY
However food’s produced, there are marketing campaigns, social norms and taste buds which can intervene.

Vishal, Bunty and Sanjay are among thousands of Delhi rag pickers collecting the food industry’s plastic wrappers. When they manage to make two hundred or more rupees a day - what do they buy?

Vishal (translation)
I like pizzas and burgers. If I have the money I love to eat them. I have been eating them since I was seven or eight.

COMMENTARY
That's the kind of fast food habit that's led Tulika to campaign for a ban on junk food in schools.

And India’s high court has just found in her favour.

Tulika
Today I’m quite happy for the judgment of the court. And the court has instructed the food safety and standards authority of India to make new guidelines and a comprehensive health policy for the schools.

And I expect that, after that guidelines, the schools will have more healthy options - there will be no junk food, there will be no unhealthy options, and kids are going to eat healthy food, nutritious food in the school canteens.

COMMENTARY
It’s an important potential victory. And an indication that governments can act to promote a healthier and more sustainable diet.

Raj Patel
So I think what we need to be doing is pulling back from wholesale subsidy of a broken model of industrial agriculture - and for government to be moving not only towards restricting the actions of these corporations, but positively funding sustainable agriculture and the kinds of diets that are going to help our children lead not shorter lives but longer ones.

COMMENTARY
India’s facing a conundrum many richer countries are failing to solve. What kind of ‘Future Food’ will keep people on the move - farmers working - local cuisine alive - and children healthy?

India’s still trying to find the answers.
Film Information: India - fat or skinny?
tve.org/film/future-food-india-fat-or-skinny/

In India, Tulika Verma is on a mission to ban junk food from Delhi’s schools – where over one in six schoolchildren are overweight. Western-style diets and processed food are becoming ever more popular in India’s cities, while traditional, healthy, sustainable foods are being forgotten. India’s on the edge of two possible futures: a future that’s well fed and healthy; or a future of ‘Western-style’ diets and a public health epidemic of obesity.

Series information: Future Food

tve.org/series/future-food/

A series of 6 x 25-min films exploring key questions around global food security.

In discussions of feeding the planet, many now argue for a new way of thinking about food technology, food policy and food science. Since the days of the “Green Revolution”, which promised enough food for all but which ultimately reduced crop varieties, created a dependency on fossil fuels and depleted the land, studies have shown that “agroecology” – the application of ecological principles to the production of food – could double food production in the next 10 years sustainably. But can low-yield sustainable farming methods feed 9.5 billion people by 2050? Without GM crops or synthetic fertilizers, can farmers increase food production by 70 percent?

tve information:
tve.org

tve works with filmmakers and partners worldwide to make and distribute films that put the environment and sustainability on the global agenda. From aspiring filmmakers documenting the change of e-waste disposal to major corporations showcasing innovation, we help to give a voice and a platform to a new generation of filmmakers who want to see a greener and fairer world.

tve films are broadcast to hundreds of millions of viewers, screened to audiences ranging from policymakers to rickshaw drivers, and viewed online worldwide. Our films inspire change.

Our aim
To make people think. We inform. We spark debate. We inspire change. And we’ve been inspiring change for more than 30 years

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