

Urban Food Challenges in India

Siddhartha
Pipal Tree, Fireflies Intercultural Centre
Bangalore-India

Email: sidd173@gmail.com
Website: www.pipaltree.org.in



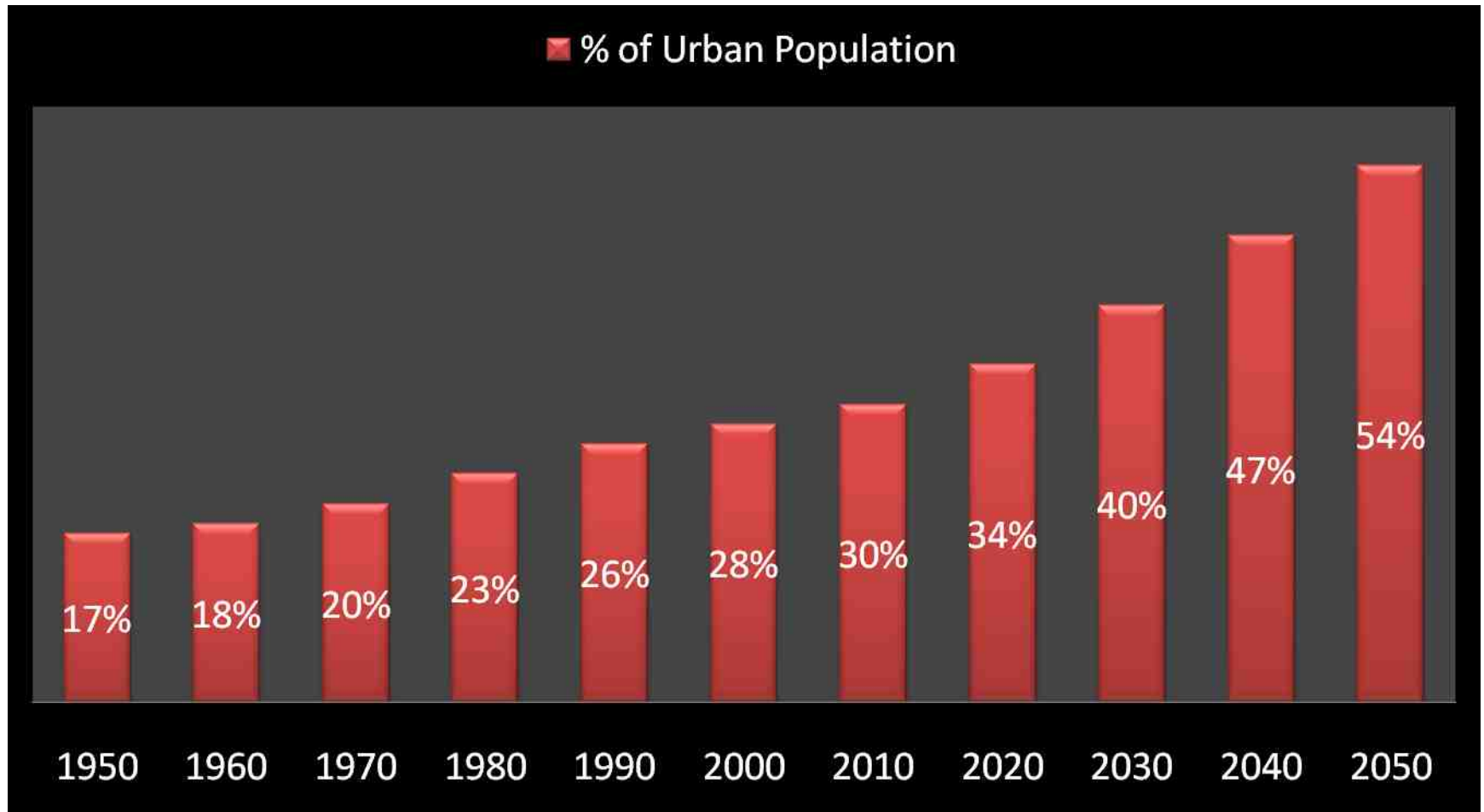
Lets start with the Urban population in India, to understand the enormity of the challenge.

- The population of India is 1.2 billion (2011).
- About 31% of the population lives in about 5,480 towns and urban agglomerations and the remaining 69% in some 638,000 villages.
- 55 percent of Indian urban residents live in slums.

Aerial view of Mumbai



India Urban Population growth



Urban population in 2050

Another projection



- If India continues to grow rapidly, one would expect about 75% of India's population would be urbanized by 2050
- The urban population in 2050 will be about 1.2 billion out of a total population of 1.6 billion people.

<http://siteresources.worldbank.org/INTINDIA/Resources/>

Nutrition and food security situation in urban areas

- Urban population depend on rural agricultural output.
- As of now, India's primary issue is *not* the availability of food grains, but poor distribution and management. (In 2011, India has achieved record food grain output of 241 million metric tons (mt); enough food not just for the domestic population, but also to export to international consumers)
- The lack of nutrition and food security in the urban areas can be attributed to access, availability, consumption, food preference and, importantly, distribution.



42 per cent of Indian children are undernourished and stunted.

This represents over 61 million children.

- The statistics in the HUNGaMA (Hunger and Malnutrition) report say that every third malnourished child on the planet is an Indian.
- Another report states that malnutrition kills 56,000 people annually in India



Food preferences in Urban areas

- At the moment 80 percent of food grains consumed in the urban areas by the urban poor are rice and wheat.

Future of Urban Food Security

- The urban-to-rural population growth ratio is skewed towards the urban population, and thereby raises questions of how rural production can increase to meet the extra urban/rural demands with the diminishing of rural producers and the shrinking of cultivable land (with changing land use patterns).
- Also, with climate change the production of the major food grains will be affected. The thumb rule is that for every 1°C rise in temperature food production will go down by 10 percent.
- Demand for wheat in the developing world is projected to increase 60% by 2050.
- At the same time, climate-change-induced temperature increases are likely to reduce wheat production in developing countries by 30-300%

Importance of millets for future urban food security

- **As it is 65 percent of arable land in India is dry land, where food crops like millets could be grown.**
- **As a result of the green revolution, which saw a dramatic rise in rice and wheat production, millet production declined. Even traditional millet eaters began to shift to rice and wheat (The government Public Distribution System supplies largely wheat and rice to BPL people)**
- **With climate change, water will be a scarce commodity for agriculture in India. Since millets are rain-fed crops, reviving millets-based bio-diverse farming can contribute to meet the future food demands.**

Our Millets



English : Great Millet/
Sorghum

Bengali : Jowar
Gujarati : Jowari, Juar
Hindi : Jowari, Juar
Kannada : Jola
Marathi : Jowari, Jondhala
Oriya : Juara
Punjabi : Jowar
Tamil : Cholam
Telugu : Jonna



English : Spiked Millet/
Pearl Millet

Bengali : Bajra
Gujarati : Bajri
Hindi : Bajra
Kannada : Saje
Marathi : Bajri
Oriya : Bajra
Punjabi : Bajra
Tamil : Kambu
Telugu : Saja



English : Finger Millet

Bengali : Marwa
Gujarati : Nagli, Bavto
Hindi : Ragi, Mandika,
Marwah
Kannada : Ragi
Marathi : Nagli, Nachni
Oriya : Mandia
Punjabi : Mandhuka, Mandhal
Tamil : Keppai, Ragi, Kelvaragu
Telugu : Ragi Chodi



English : Italian Millet/
Foxtail Millet

Bengali : Kaon
Gujarati : Kang
Hindi : Kalkum
Kannada : Navane
Marathi : Kang, Rala
Oriya : Kanghu, Kangam,
Kora
Punjabi : Kangni
Tamil : Tenai
Telugu : Korra



English : Little Millet

Bengali : Sama
Gujarati : Gajro, Kuri
Hindi : Kutki, Shavan
Kannada : Same, Save
Marathi : Sava, Halvi, vari
Oriya : Suan
Punjabi : Swank
Tamil : Samai
Telugu : Samalu



English : Kodo Millet

Bengali : Koda
Gujarati : Kodra
Hindi : Kodon
Kannada : Harka
Marathi : Kodra
Oriya : Kodua
Punjabi : Kodra
Tamil : Varagu
Telugu : Arikelu, Arika



English : Common Millet/
Proso Millet

Bengali : Cheena
Gujarati : Cheno
Hindi : Chena, Barri
Kannada : Baragu
Marathi : Vari
Oriya : China Bechari bagmu
Punjabi : Cheena
Tamil : Pani varagu
Telugu : Variga



English : Barnyard Millet

Bengali : Shyama
Gujarati :
Hindi : Sanwa
Kannada : Oodalu
Marathi : ...
Oriya : Khira
Punjabi : Swank
Tamil : Kuthiravolvi
Telugu : Udatu, Kodisama

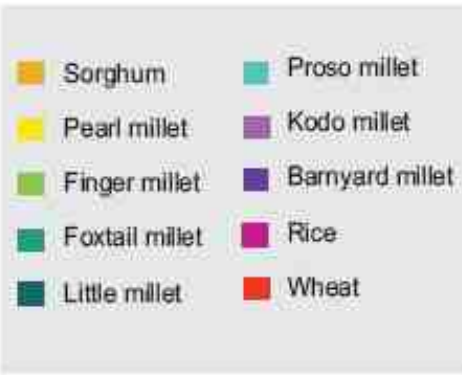
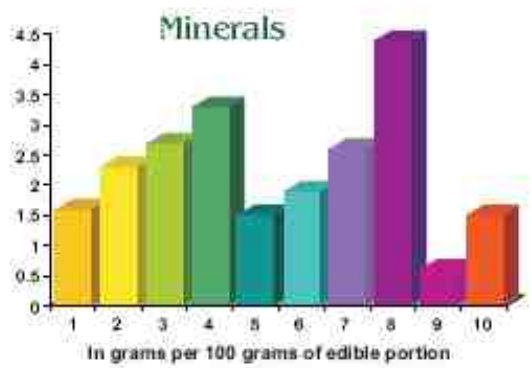
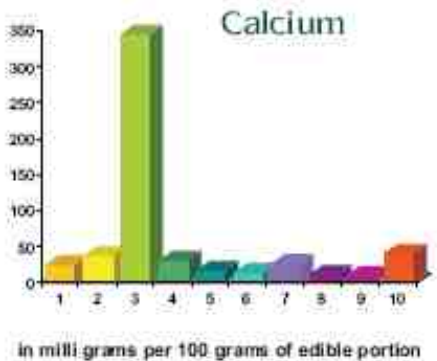
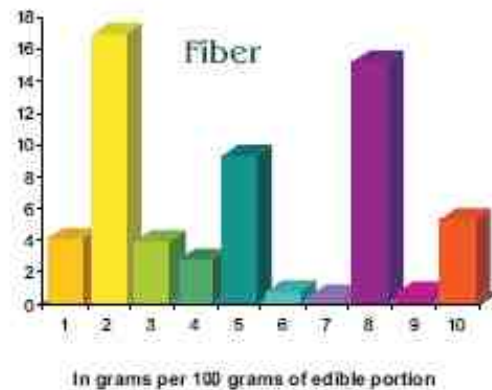
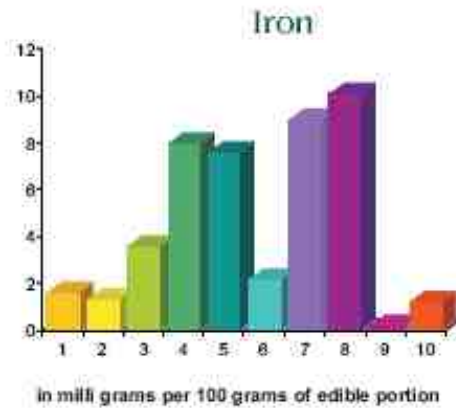
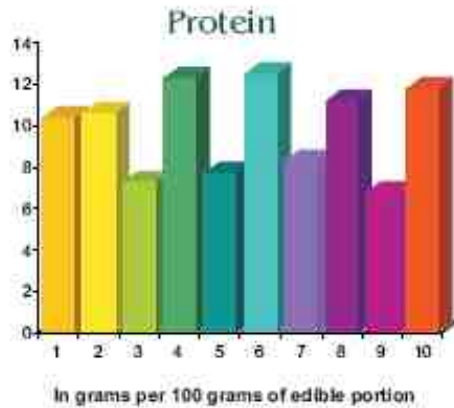
Millets in India



The bio-diverse nature of millet cultivation can prevent pest attack, apart from nourishing the soil and providing other lentils, pulses and oil seeds



Comparative Nutrition Chart of Millets with Wheat & Rice



Apart from the implications for food security millets also contribute enormously to the health of the people.

Festival to revive millets



Women taking a millet oath



Exhibitions to Promote Millets



Purchasing millet products





As health consciousness grows in urban India, producers of organic foods are recording an encouraging spurt in the urban consumption of millets.

In Bangalore, Pristine Organics has seen its sales of millet-based food products go up from Rs 30 million in 2007-2008 to Rs 100 million in 2008-2009.

- The millets' revival is also getting a boost because of the recent spate of health foods hitting the Indian market in response to high consumer demand. (One of the constituents in Britannia's recently launched 5 Grain biscuits is finger millet; and the trendy Fabindia has taken to stocking millets porridge. The multigrain breads that are now a regular feature on urban breakfast tables are generously endowed with millets. Even multigrain flour and ready-to-eat chapatis, launched in the last few months, now come packed with millet flour. But there is a long way to go before a complete revival is in place.)



We are part of a campaign to pressurise the government to get the mid-day meal school programme for school children to also provide millet based food, instead of the present system where only rice and wheat preparations are served.

Decentralised regional food distribution system and storage facilities



Production, distribution, marketing, processing and consuming of food, with an emphasis on the local and the regional level.

At the moment a lot of food grains rots, or is eaten by rats, because of improper storage facilities.

A strong urban/ peri-urban farming system makes affordable, nutritionally rich fresh foods more available to the least food secure urban residents.

However, with its growing populations, peri urban agriculture areas are being pushed away.



Promotion of urban agriculture

- Agriculture in urban areas can be done on or off plot – close to urban farmers' homes or away from it.
- Urban farmers often lease land or use public land such as those along roads, streams and railway lines.
- They could also avail of semi-public land such as grounds of schools and hospitals.
- Urban farmers sell their produce in local markets and are largely associated with micro or small farms with low technology levels.

Terrace gardening



V. Y. Wilankar in her terrace garden in densely populated urban India.





Terrace
before and
after



Recycling household waste



School Garden Projects



Railway land being cultivated by railway employees



Community urban farming by senior citizens in unused park space

