

# BEEJPATRA

*An initiative on Urban Farming*

Beejpatra in Hindi translates as ‘cotyledons’- the part of seed which nourishes it till it grows its own roots. It also translates as “the original letter”. This Newsletter is an attempt to nourish the germinating hope that cities can be made beautiful. This ‘Beautiful City’ need not be limited to aesthetics and material pleasures -- it rather incorporates the beautiful ideas of freedom, equality and self-reliance. Urban farming is a step towards realizing this hope. Beejpatra is here to save and share the knowledge, experiences and possibilities in urban farming. Beejpatra is here to create a movement to radically transform our cities. Beejpatra, like cotyledons, is where the journey starts...

## EDITORIAL

# THE FUTURE OF CITIES - CAN IT BE FARMING?

*by People's Resource Centre*

As per the UN, by 2050 nearly 68% of the world's population would be living in urban clusters compared to 55% in 2018. However, a large chunk of this urban population lives in informal clusters and doesn't have access to basic services. Our cities currently are dependent for its food, water, energy and other needs outside peripheries and so continue to be extremely vulnerable. The ongoing pandemic has further exposed the limitation of this dependency. The future cities not only have to be self-reliant but also accessible to those on the margins and not a cause of ecological crisis, as they are today causing land, river and air pollution exacerbating global warming. It is in this context, urban food and energy systems need to be reworked and innovative approaches adopted towards making cities just and self-reliant. Urban Agriculture is at the heart of this approach to reimagining cities. Modern urbanised cities have marked significant interruptions in the natural food cycle, as a result it is devoid of any agricultural activity, husbandry, and other allied activities. As a result, our cities are consumers of resources and big producers of waste of all kinds, with very limited ability to recycle and process these back to the earth systems.

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Deeply concerned with these issues, the People's Resource Centre (PRC) has been developing ideas on systemic alternatives to this kind of urbanization. PRC is a civil society organization and we generate resources for collective resistance, creative action, and social transformation. Our recent work in Delhi, exploring possibilities and challenges of urban farming has brought in a diverse community of policy researchers, practitioners, farmers, citizens and others and created a space for dialogue and which is attempting to redefine the urbanisation process. Urban Agriculture Community (UAC) has come together after the Farming The City convention organized by PRC and Institute for Democracy and Sustainability (IDS). UAC strives to make urban agriculture an issue of significance in urban planning and policy. The UA Community believes that cities can be much more than a cluster of buildings, machines and motors - cities can produce more food for its residents; there can be clean air and water; and urban life can be aesthetically pleasant. Urban farming is an essential component of this transition. If we bring back few self-reliant attributes that have diminished in the past decades, then our cities can become independent and self-sustaining. Building on our work and the conversations within UAC, an attempt is being made through this newsletter to integrate community knowledge, practices and approaches from diverse cultural and ecological contexts. We look forward to working with all of you and creating a Beejpatra that is enlightening and engaging to all.



*Chilla Gaon Mandi, Delhi; Photo : Avikal Parashari*





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## EDIBLE ROUTES - WHERE FOOD CLOSE TO HOME IS FOOD CLOSE TO HEART

Edible Routes likes to call itself a place with a strong sense of community, delicious organic food and happy souls. For them happiness is being able to provide so many families all over Delhi NCR the joy of eating healthy, growing organic food in their kitchen gardens and building a community of urban farmers.

Kapil Mandawewala founded 'Edible Routes' in 2012 with the aim to help people grow their own food through workshops on urban organic farming, by setting up food gardens and edible landscapes, and building community farms where people can grow their own food by subscribing to a mini-farm.

Kapil says "I believe if we utilize all the unused rooftop spaces in a city like Delhi we can not only feed the city but also surrounding villages".

For Kapil, Urban Farming is primarily about connecting to your food - knowing where your food is grown and how it is grown. The additional benefits of urban farming like waste recycling, keeping rooftops and homes cool, cleaner air, and the joy it brings are no less.

You can watch Kapil talking about his vision at <https://www.youtube.com/watch?v=woUs2PeNUDI&t=3s> at 18:42

To know more about Edible Routes, visit <https://edibleroutes.com/>



**"I BELIEVE IF WE UTILIZE ALL THE UNUSED ROOFTOP SPACES IN A CITY LIKE DELHI WE CAN NOT ONLY FEED THE CITY BUT ALSO SURROUNDING VILLAGES"**



*Glimpses of Edible Landscapes; Photo : Kapil Mandawewala, CEO and Founder, Edible Routes*





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## NURTURING NATURALISTS: URBAN FARMING FOR CHILDREN

Deborah Dutta talks about developing ecological sensitivity through educational interventions. How do the ideas of empathy, care, collaboration help the youngsters develop environmental sensibility? The answers are to be found through a practical approach to discover the “embeddedness” of children in ecological systems. Deborah conducted a study on 40 children involved in an urban farming project that lasted for 10 months. The study consisted of getting children to make compost pits, collect dry leaves, mulch the plants, make sapling and cardboard planters, care for plants, save seeds and harvest. It was noticed that while the children were doing these activities, they developed some aesthetic interactions- sensual appreciation of the immediate environment.

Often, the children were heard saying “we’ve never touched plants like this.” They also appreciated the complicated processes and methods employed in planting a seedling and growing a plant which was very unlike the information they had received from books or academic education. Over time, these observations turned into significant emotional experiences- everyday things like mushrooms popping, snails being seen became ‘moments of affections’ because they were actively involved with it. These moments are very critical in seeding empathy and generosity towards the more-than-human world. It was also observed that parents were gradually drawn into the farming practices, moving from passive spectators to actively supporting their children’s interest. Interestingly, children began looking up to their grandparents who already had rich, implicit knowledge about growing plants. Their previous experience and knowledge of farming also felt validated.

From these observations, Deborah concluded that the cognitive capacities are not just enacted, but created through interaction with physical entities in the environment. This argument to include the evolution of values through material involvement. Building a meaningful relationship with the environment requires immersive, sensorium-based experiences, which generate the rich, moral imagination necessary to think and act in pro-environmental ways. Listen to Deborah describe her experiences here: <https://www.youtube.com/watch?v=Q-v-lgGKGHw&t=2076s> at 28:45



*An erstwhile bare roof terrace of a CBSE school in Mumbai turned into a small garden by children.; Photo : Deborah Dutta*



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## REPORT

### FARMING THE CITY : A UNIQUE LEARNING EXPERIENCE

*Farming the City was a 5-day long webinar series organized by People's Resource Centre (PRC) involving participation of more than 500 urban farming enthusiasts from India and abroad. Beejpatra will bring to you the summary of each session of this rich and diverse webinar series with each issue. In this issue, Nishant describes the first day of the webinar where he presented a research on urban agriculture in Delhi conducted by PRC.*



Photo : Avikal Parashari

Rajendra Ravi, the director of the Institute for Democracy and Sustainability, underlines how agricultural activities remain outcast in the prevalent paradigm of urbanization and urban planning. He also highlights the contradiction between the constitutional mandate for decentralized development and the existing institutional arrangements that ensure centralised, top-down decision-making in urban planning. The following presentation is on the research on urban agriculture in Delhi that was conducted between July and December 2019. The study has now been published in the form of a report (titled 'परिदृश्य से अदृश्य होती खेती', literally translated as 'Farming getting erased from the scenario') available on request over email (mail to [prc.india@yahoo.com](mailto:prc.india@yahoo.com)). The occasion is a series of webinars, themed 'Farming The City', organized during April 25-30, 2020. While the original idea was to organize a face-to-face, intensive three days-long gathering of people either practising or interested in urban agriculture, it had to be scrapped owing to COVID-19 and the organising team had to make preparations for hosting it online.



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Webinars were a new thing for most people at that time- many were attending one for the first time in their lives. Some had to reach out to their neighbours for a computer and an internet connection, others had to arrange it at their homes. And when the idea is to be accessible to all, there needed to be a lot of effort on the part of the organising team as well - from provided bilingual live chat summaries to arranging audio interpretation in Hindi/English in all the sessions. We were fortunate to get generous help from friends and volunteers. Despite being an online event in a not-so-digitally empowered country, we saw a huge participation - more than 500 people that included people from all over India and even outside of India.

When we decided to have the convention, the intention was not just to showcase the pluralistic composition of the urban agriculture community in India and the diversity of its practices but also to bring the community together to strengthen the political position of people farming in the city. The culmination of our vision is the formation of 'Urban Agriculture Community', a heterogeneous community of people practising, researching, or interested in urban farming who are also instrumental in bringing out this newsletter.

In our study on urban agriculture in Delhi, we have explored various forms of agriculture, including peri-urban farming, rooftop gardening, farmhouses, fishing, animal rearing and cattle herding, farming in the Yamuna floodplains, composting and decentralised waste management, in different parts of Delhi. While there is more than a significant amount of farming activities going on in different parts of the megacity, the legal and political environment is hostile and both the organs of the state government and the centralised master planning regime are reluctant to recognize these practices. With the rapidity of capitalist urbanization, increasingly intense commodification of land, and alarming deterioration of water and urban environment, the city has become saturated with flyovers, super-wide highways, shopping malls, and unaffordable apartment complexes. Consequently, the proportion of agricultural land use and agricultural output in Delhi has fallen over the years, but more sharply in the liberalization and globalization period. Delhi has now become heavily dependent on the nearby states (mainly Haryana, Rajasthan, and Uttar Pradesh) for meeting most of its food, water and energy needs. In turn, this has pushed for building and constantly upgrading a system that has created an insatiable demand for flyovers and highways and immensely energy-intensive cold storage facilities.

Despite these developments, farming in Delhi still contributes a sizable share of food supplies consumed within the boundaries of Delhi. Existing scholarship suggests that about 10-15% of food items consumed in Delhi are sourced locally, and vegetables have the largest share in the basket of food items that Delhi produces for local consumption. This makes sense because a farmer can cultivate vegetables more than twice a year even on a smaller patch of land and can get a handsome price. In many areas of erstwhile villages in Delhi, landowning families are no more inclined to do farming. But a growing mass of entrepreneurs is bringing a refreshingly new approach to the periurban agriculture in Delhi. Farms and farmhouses where new crop and crop varieties are being cultivated are becoming a common sight in various urban villages and peri-urban areas of Delhi. Hundreds of farm labourers get seasonal livelihood on mushroom and paddy fields in villages like Tiggipur, Sugarpur and Palla.



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The research team also interacted with many terrace farmers in Delhi. We found that men and women doing terrace farming are primarily interested in this as a meaningful hobby. The terrace farmers do not aim for raising revenues but increasing the nutrition value and quality of their food. Terrace gardens are also a way to maintain a closer relationship with nature. In many cases, terrace gardeners also compost their kitchen waste which they use as an input in their terrace farms.

Another feature of urban farming in Delhi is the complicated and exploitative nature of land governance. Existing farming in certain parts of Delhi is deemed unlawful. For example farming in the Yamuna floodplains (or what is technically referred to as 'Zone O') is banned after an order by NGT, apparently as one of the measures to rejuvenate the river Yamuna. Many tenant farmers and their families have been living in the floodplains and tilling those lands for more than 40-50 years. Almost all of these farmers use groundwater, and not polluted river water, for irrigation (irrigation and fertilizer needs are anyway minimal as the floodplains land is of highly fertile and rich quality) and, therefore, neither are the vegetables grown on the floodplains toxic nor do the farming activities contribute in polluting the river water. This has also been validated by the findings of a recent study conducted by the Central Pollution Control Board (CPCB) on the directive of the NGT. It is yet to become clear whether this hard evidence would bring dignity and protection from exploitation for the floodplains farmers. All this while, the real polluters and the respective government authorities continue to maintain the status quo. A passing mention must be made of the arbitrariness of the demarcation of Zone O in the Master Plan of Delhi due to which certain permanent structures built on the river bank (such as Yamuna Bank metro station and rail yard, and Akshardham temple) are not considered encroachments while the farmers with their hutments and tarpaulins are seen as encroaching in an ecologically sensitive area.

Similar has been the fate of dairies which have been pushed outside the expanding administrative boundaries of Delhi through one master plan after another. Moreover, even the small-scale animal rearers now find it extremely difficult to continue their traditional occupation because it is becoming extremely difficult for them to shelter the animals in tightly compartmentalized dwellings. It might come as a surprise to many that there are a lot many fishermen in Delhi, all migrants from West Bengal, who fish in the northern, cleaner stretch of the river. Though they get a licence issued from the Delhi state government, they have been struggling for a long time to register their union as fisher people's union. Reluctance to recognize the farming and allied activities as legitimate urban livelihood is all-pervasive.

There is an uneasiness among the urban farmers about what the future holds for them. Governance and political leadership structure have largely ignored the voice of this community unduly for too long. With the state pushing for real estate-friendly policies such as land pooling, it is very difficult to assume a conducive environment for urban agriculturalists anytime soon unless the community gets more organized.

It is very common to presume the cities as inherently against nature, sustainability and harmonious life. However, the initial insights of our study in Delhi, one of the most densely urbanized megaregions in the world, have expanded the horizon of our understanding of urban spaces and the politics of possibilities. We are now better informed about the variety of manners in which people are already contesting the direction of urban development. We are now more hopeful that together we can work out ways to get rid of the deadly cages of the modern cities and create spaces where an urban ecological society can thrive beyond scarcity, alienation, and resignation.

*-Nishant, is a member of People's Resource Centre and helped organize Farming The City-2020*





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## GUEST WRITER

### THE CHETHA LADY FROM VIZAG

*Usha Gajapathi Raju- A member of UAC, tells her remarkable story that started from a cyclone destroying her plants. She is now rebuilding her city- greener and cleaner. Usha not only grows her own food but also conducts workshops for people teaching them about waste segregation, composting and urban farming.*

Gardening is my passion, it makes me feel one with Mother Nature. I find getting my fingers dirty in the soil a very therapeutic experience. And, the upside is that my house below remains cool because of the garden on top! I grow all that I need in my terrace garden, using only the fresh compost that I get from my kitchen waste to nourish them. No chemical fertilizers and pesticides for my beautiful veggies. Growing my own food also encourages me to follow eco -friendly practices such as rainwater harvesting, reusing discarded containers, upcycling waste as useful planters/ pots and converting my kitchen waste to fresh earthy smelling compost. I initially started with flowering plants, and a few leafy vegetables on the terrace.



This journey of converting myself into an organic terrace gardener was not easy; there were several struggles including one with nature that destroyed the garden completely during several cyclones. On October 12th, 2014, super cyclone Hudhud devastated my little terrace garden along with the entire city of Visakhapatnam. I was in tears when I saw the destruction of the city's green cover. That day I decided that I must do something positive to contribute to the environment. After the cyclone,

I immediately started rebuilding my terrace garden by upcycling discarded water cans, thermocol boxes, cartons – anything that could hold soil just to minimize their entry into the city's landfill and the sea. I have started upcycling old buckets for home composting, vermicomposting and often ended up picking vegetable waste from the city's Rythu Bazaars and dry leaves from roads and parks.



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Within 2 months every effort that I put in resulted in a very good harvest of tomatoes and other vegetables. When I shared the pictures of my produce and my experiences on social media, friends and aspiring gardeners suggested me to conduct workshops. That's how I ended up guiding many people in the city about gardening and home composting. In association with the Federation of Resident Welfare Associations of Vizag, municipal corporation and Rythu Mitra, I have conducted over 150 + workshops in the past 5 years all over the city to spread awareness among our citizens regarding the importance of segregating dry and wet waste at home. On a lighter note people started calling me the Chetha Lady...

Today I grow all kinds of green, leafy and other vegetables including lettuce, brinjal, lady finger, tomatoes, cauliflower, drumstick, carrots, sweet potato, colocasia, potato and radish, spring onions, garlic, ginger, mustard, turmeric and fruits like custard apple, passion fruit, dragon fruit, guava, sapota etc. Today, I harvest around 60% of my vegetables and fruits from my terrace garden and share the excess produce with my helper. There is nothing that can beat home grown food in terms of freshness and taste.

I follow the natural farming methods of crop rotation, companion planting, pruning and allowing natural predators to visit my garden by not using any pesticides and chemical fertilisers. These methods help me in pest management and reduce my workload in the garden.



## THE GROWER'S CORNER



*Photo: Putta Praveen Kumar from Secunderabad shares photos of his rooftop garden where he grows ,tomatoes, sweetcorn, rhizomes, eggplants, as well as onion and green pepper plants in waste bottles, covers, trays, pots, tubs. Last year, 5 kg of paddy was also grown in these bottles.*





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## ACKNOWLEDGEMENT

This Newsletter is a result of the joint effort of volunteers from the Urban Agriculture Community. We thank Magadhi and Mohini for their contribution in editing this inaugural volume. Anubhav Pradhan was kind enough to do the proofreading and we appreciate his generous assistance. Sincere thanks to Avikal Parahsari for creating such an elegant and beautiful design for the newsletter. We thank Nishant, Rajendra Ravi and Madhuresh for their consistent support and guidance to this initiative. We also acknowledge the enthusiastic support of all those who presented and participated in Farming the City webinar. Lastly, we cannot thank enough People's Resource Centre and Institute for Democracy and Sustainability Delhi for providing us with the logistic and institutional support.

बीजपत्र - शहरी खेती पर मासिक पत्रक शहरी खेती करने वालों, इसपे शोध करने वालों और इसमें रुचि रखने वाले लोगों को अपने अनुभव, विचार और लेख साझा करने के लिए आमंत्रित करता है।  
आप हमसे साझा कर सकते हैं-  
-घर, छत या बालकनी में खेती करने सम्बन्धी अनुभव जो आपके या आपके दोस्तों/सम्बन्धियों के हों  
-शहरों में खेती करने या खेती को प्रोत्साहित करने से जुड़े सामुदायिक प्रयासों पर संक्षिप्त रिपोर्ट  
-शहरी खेती से जुड़े तकनीकी और सिद्धान्तात्मक सवालों पर विचार-विमर्श  
-इनसे जुड़े शोधकार्य, लघु नोट या टिप्पणियाँ

### कैसे भेजें?

आप अपने लेख, तस्वीरें और वीडियो  
beejpatra@gmail.com पर हमें भेज सकते हैं। आपके लेख/वीडियो अंग्रेज़ी या हिंदी में हो सकते हैं।

### बीजपत्र टीम में जुड़ें

शहरों को बेहतर, रहने लायक, हरा-भरा और आत्मनिर्भर बनाने के मकसद से हम कुछ लोगों ने मिलकर 'शहरी खेती समुदाय' की शुरुआत की है। हम लोगों का मानना है कि शहर मकानों और मशीनों के जमघट से कहीं बेहतर हो सकते हैं। शहर में रहने वालों के लिए शहर ज्यादा और बेहतर खाना उगा सकता है, साफ हवा और पानी दे सकता है और शहरी जीवन में सौंदर्य को निखारा जा सकता है। बीजपत्र इसी दिशा में एक कदम है। बीजपत्र के जरिये हमारा प्रयास है कि शहरी खेती के ज्ञान, अनुभव और उसकी संभावनाओं को आपस में और समाज के साथ साझा किया जा सके। हमें उम्मीद है कि ये हमें एक आंदोलन की ओर ले जाएगा है जिसमें शहरों के बारे में सोचने के तरीके बदलने के साथ-साथ शहरों में भी मौलिक बदलाव लाया जा सकेगा। हालांकि इस पत्रक के संपादन के लिए हमारे पास छोटी-सी टीम है लेकिन अगर आप दिलचस्पी रखते हों तो इसे इस प्रयास को और आगे बढ़ाने में मदद जरूर करें।

'Beejpatra: a leaflet on urban farming' invites urban cultivators, researchers and enthusiasts to share their experiences and ideas on urban agriculture. You can share with us-

- Your experiences (or experiences of your friends/relatives) of farming in the house, terrace or balcony
- Brief report on a community initiative of farming or encouraging farming in cities
- Discussion on technical and theoretical questions related to urban farming
- Original research work, short notes, or comments related to urban farming

### How to send

Send your articles, photos and videos to us at beejpatra@gmail.com. Your articles/videos can be in English or Hindi.

### Join Beejpatra Team

In order to make cities better, livable, green and self-reliant, some of us together have started an 'urban farming community'. We believe that cities can be much better than the gathering of houses and machines. For the city dwellers, the city can grow more and better food, can provide clean air and water and can enhance beauty in urban life. The cotyledon is a step in this direction. It is our endeavor through the cage to share the knowledge, experience and potential of urban farming with each other and with the society. We hope that this will lead us to a movement in which along with changing the way we think about cities, there will be a fundamental change in cities. Although we have a small team to edit this leaflet, but if you are interested, it should help in furthering this effort.

**Initiative supported by: People's Resource Centre, Delhi, India**

