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# Focus on Problem Area & Sub-Areas

DEP302 : Systems Design Project

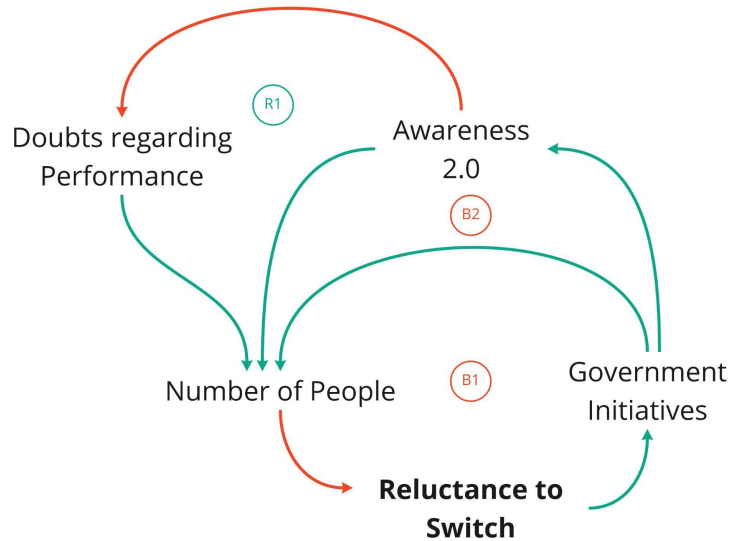
**Padma | Report 03**

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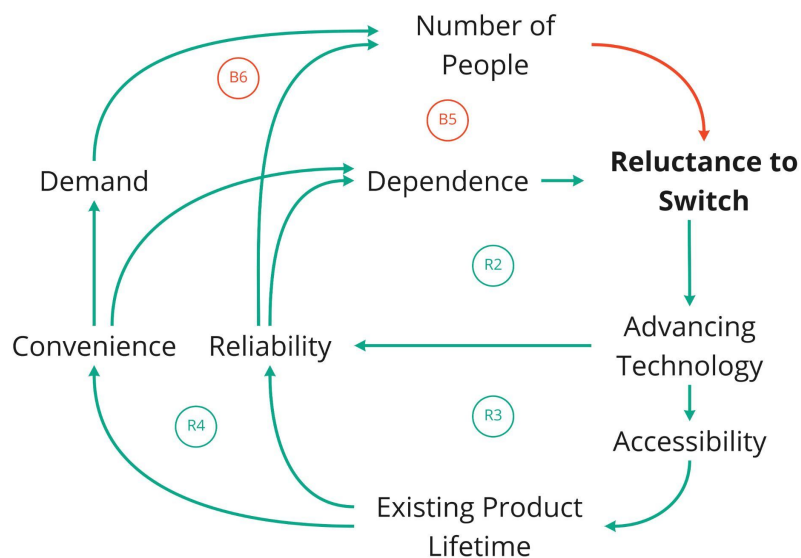
We were asked to revisit and retouch our causal loop diagrams to identify stronger loops. We also created a new one based on the areas of focus which we had come up with. Here we have looked into people's reluctance to shift and the factors influencing it.

### 4.3.1 The Role of the Government



The first half of the loop addresses the role of the activities and aid from the government in increasing the number of people shifting to sustainable options. **(Balancing Loops)** Government Initiatives like raising the right kind of awareness, issuing subsidies, introducing new villages for households on the way to becoming sustainable, etc, **(Reinforcing Loop)** would naturally rid people of the doubts they have, mainly regarding the efficiency and durability of the alternatives. This, in turn, increases the number of users. This increase in the number of users aids the spread of the word, further leading to a reduction in the reluctance to shift.

### 4.3.2 The Role of the Existing Methods



This half of the loop stresses the key factor for people’s reluctance to shift. **(Reinforcing Loops)** People have used the methods and related products for years now and this has led to a lock-in right there, because of the amount of trust that has been built over the years. This had led to advancing technology to come up with newer lines of existing products which have gone through years of rework and improvement. This, in turn, leads to easy accessibility due to the availability of a vast variety in stores and service options. This further increases the lifetime of existing products resulting in an increase in convenience and reliability. This leads to dependence, and later, a lock-in and **(Balancing Loops)** rise in demand, hence increasing the number of users causing a reduction in people’s reluctance to switch in the long run.

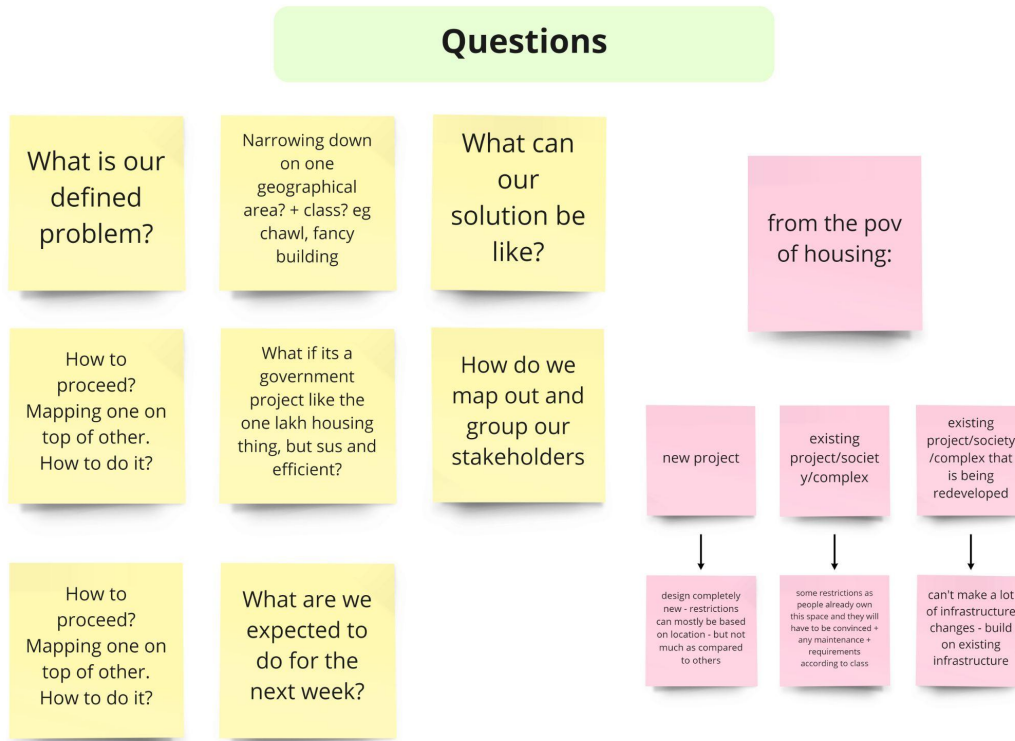
#### 4.4 Analysing Feedback



We looked into the feedback that we had received on Monday, once again since we were a little lost on how to proceed. We discovered the Environmental Performance Index where the countries of the world are rated based on their takes and actions on the environment. We also found the main attributes that are considered for the assessment, namely, Performance, Air Quality, Sanitation, and Drinking Water, Biodiversity and Habitat, Ecosystem Services, Fisheries, Climate Change, Pollution and Emission, Agriculture, Water Resources, and Methodologies. We also looked into the Gross National Happiness of Bhutan as suggested and discovered their four pillars, namely, Good Governance, Sustainable Development, Preservation and Promotion of

Culture and Environmental Conservation. We were not shocked to find India to be in the 168th position.

## 4.5 Questions



We were extremely clueless on how to proceed at this point as we could understand how to lay the mapping that we had done during week two over the work that we had done during week one. This gave rise to a few questions which we intended to clarify during our feedback.

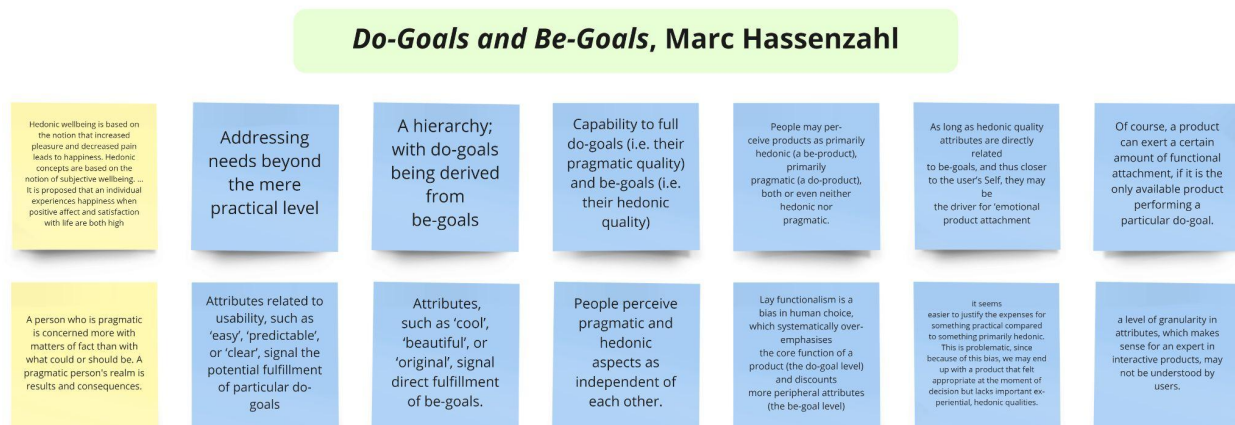
- What is our defined problem?
- Do we narrow down on one geographical area?
- Do we also consider class?
- What can our solution be like?
- How do we proceed?
- How do you map one variable on top of the other?
- There could be three types of housing, namely, new projects, those under renovation, and already existing housing, each coming with different constraints. How do we pick one to work with?
- What if it's a government project like the one lakh housing project, but sustainable and efficient?
- How do we map out and group our stakeholders?
- What are we expected to do for the next week?

## 4.6 Feedback received during the session on Thursday

- Our focus area has become too broad, that's why we have issues. Define the problem.
- Ideally, we could focus on metropolis areas (agrees with focusing on chawls)

- Decide on one (don't pause)
- Start with creating a subsystem
- Look up the paper by Marc Hassenzahl on "be goals" and "do goals"
- Do goals is mainly what people will do, their actions and be goals is making them believe, the goal of living in a clean environment, the abstract entity like the quality of life.
- Going with something unfamiliar is a little risky and we don't have time for that.
- Slums are different from chawls. They are random and unorganized making it harder for intervention.
- There is no such thing as a blank canvas for a new project. A Completely new hypothetical solution does not exist.
- Most of what we do will be a buildup of something existing.
- When asked about considering a completely new society or an existing one, he told us to not consider the inability to make changes in the infrastructure as constraints. Look at the constraints as possibilities of interventions. Constraints could be the reason why the system is behaving the way it is.
- "There is no such thing as creating a new system when it comes to Systems Design. It mainly deals with making Interventions to an existing system."

#### 4.6.1 Do-Goals and Be-Goals, Marc Hassenzahl

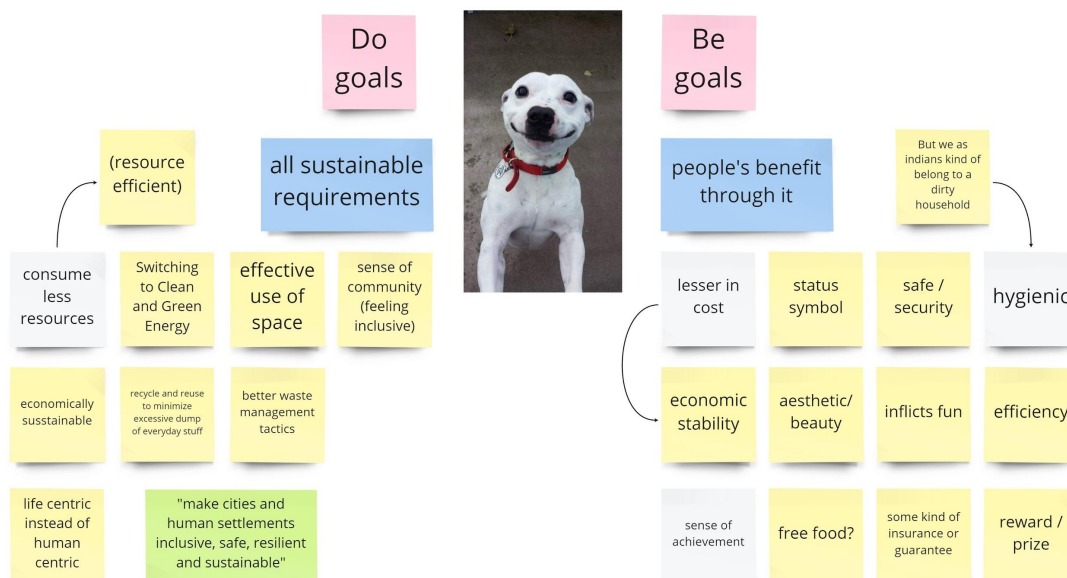


#### A Brief Summary of the Paper:

- Addressing needs beyond the mere practical level
- A hierarchy; with do-goals being derived from be-goals
- Capability to full do-goals (i.e. their pragmatic quality) and be-goals (i.e. their hedonic quality)
- Hedonic well-being is based on the notion that increased pleasure and decreased pain leads to happiness. Hedonic concepts are based on the notion of subjective wellbeing. ... It is proposed that an individual experiences happiness when positive affect and satisfaction with life are both high.
- A person who is pragmatic is concerned more with matters of fact than with what could or should be. A pragmatic person's realm is results and consequences.

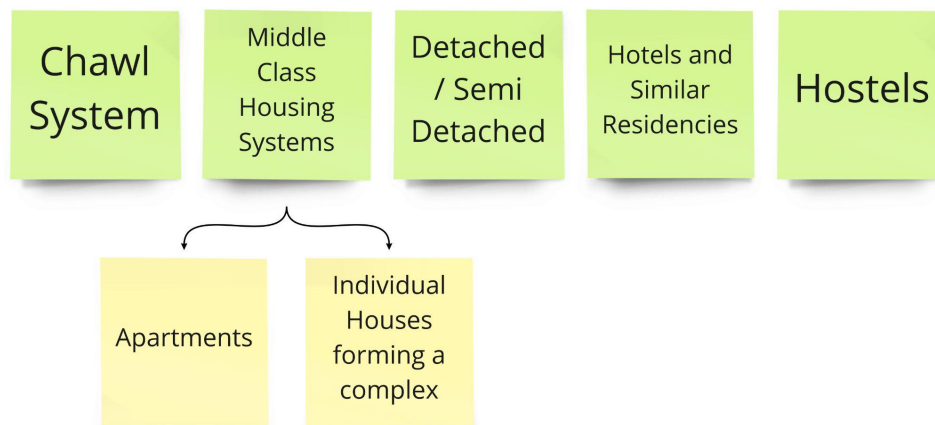
- Attributes related to usability, such as 'easy', 'predictable', or 'clear', signal the potential fulfillment of particular do-goals
- Attributes such as 'cool', 'beautiful', or 'original', signal direct fulfillment of be-goals.
- People perceive pragmatic and hedonic aspects as independent of each other.
- People may perceive products as primarily hedonic (a be-product), primarily pragmatic (a do-product), both, or even neither hedonic nor pragmatic.
- Lay functionalism is a bias in human choice, which systematically over-emphasizes the core function of a product (the do-goal level) and discount more peripheral attributes (the be-goal level)
- As long as hedonic quality attributes are directly related to be-goals, and thus closer to the user's Self, they may be the driver for 'emotional product attachment'
- Of course, a product can exert a certain amount of functional attachment, if it is the only available product performing a particular do-goal.
- It seems easier to justify the expenses for something practical compared to something primarily hedonic. This is problematic, since because of this bias, we may end up with a product that felt appropriate at the moment of decision but lacks important experiential, hedonic qualities.
- a level of granularity in attributes, which makes sense for an expert in interactive products, may not be understood by users.

So our do goals were quite apparent, where we basically listed down our possible sustainable requirements from an individual lifestyle and in context of housing. Coming to be-goals, (it was a little tricky) we realised that since we would want most people to be on board with these do-goals, we looked at how people could relate to them, (as in what would unintentionally make people go for them). So we decided to list out what possible benefit people could have from these options and hence put down under be-goals. Our next step would involve trying to connect the two sides based on how it could be relevant.





## 4.7 Further explorations before the Definition of our Problem



We tried to narrow down the types of housings that we would like to consider and maybe narrow them down further. We tried to go a little deeper into each of those to understand the scope of intervention and existing sustainable aspects if any.

- **Chawl System:** We were able to find a lot of information regarding Chawls online, but one major drawback was that none of us have ever been to Chawl. So there was no first-hand experience and a lot of difficulty for primary research. However, we found a lot of already existing sustainable practices that the residents of a Chawl follow. The most important ones included the use of limited resources even though the population of chawls is tremendous, their exchange of culture, and their way of living in harmony with animals. We thought we could refer to the Chawl System while coming up with interventions for the subsystem we decide to go ahead with.
- **Middle-Class Housing Systems:** Like the Professors had mentioned during our feedback session, this was an area that we had proper knowledge about since we all come from middle-class housing societies. But the main issue that we faced here was the fact that the houses were so varied that you can come up with further subsystems within this topic itself.
- **Detached / Semi-Detached:** This was not a system of housing. It was more like a type of house. The house, whether detached or attached depends on the mindset of occupants. This could be considered but could not be considered as a system of sorts.
- **Hotels and Residencies:** They are also considered residential buildings but the fact that people live here only for an extremely short period of time made the focus suddenly shift to a business point of view. Whatever intervention we make would immediately be considered as a way to attract people and promote the business rather than the creation of a sustainable environment.

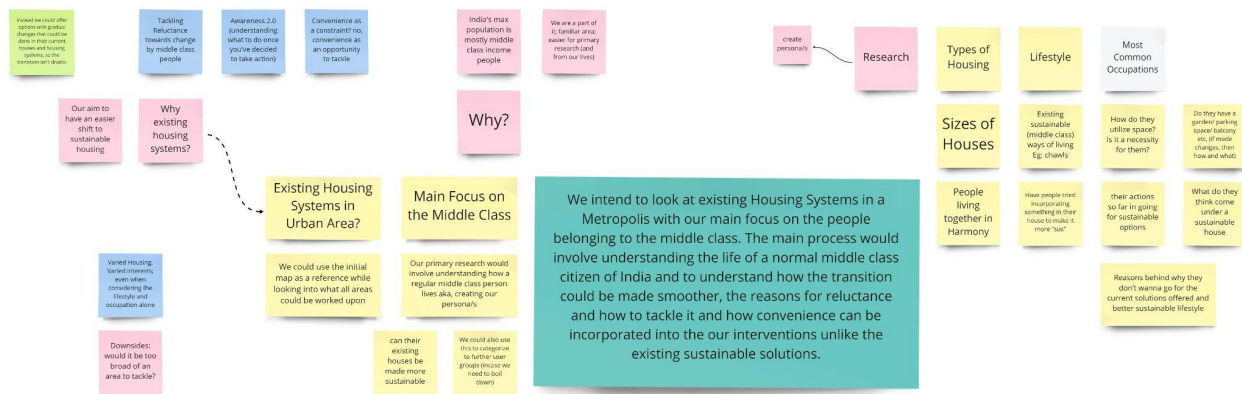


- **Hostels and Co-living Spaces:** There is a small difference between the two regarding the levels of comfort and the rules and regulations but they are basically the same. Even though we have the first-hand experience with hostels, our area would be more focused on the management and not the occupants alone. So we are a little stuck here as well.

We realized that the more we research about it, the sustainability of Different Housing Systems keeps underlining the parent line, "**Sustainability comes at the sacrifice of Convenience.**"

## 5. Defining Our Boundaries

### 5.1 Condensing our Research Information



### Main thoughts

- What all are the existing Housing Systems in Urban Areas?
- The Main Focus should stay on the Middle-Class Population.
- We could use the initial map as a reference while looking into what all areas could be worked upon.
- Our primary research would involve understanding how a regular middle-class person lives aka, creating our persona/s.
- Can their existing houses be made more sustainable?
- We could also use this to categorize further user groups (in case we need to boil down).
- Downsides: would it be too broad of an area to tackle?

### 5.2 Deriving Possibilities

- We could offer options with gradual changes that could be done in their current houses and housing systems, so the transition isn't drastic
- Our aim to have an easier shift to sustainable housing
- Tackling Reluctance towards change by middle-class people
- Awareness 2.0 (understanding what to do once you've decided to take action)
- Convenience as a constraint? no, convenience as an opportunity to tackle

### 5.3 Compiling a Brief

*“We intend to look at existing Housing Systems in a Metropolis with our main focus on the people belonging to the middle class. The main process would involve understanding the life of a normal middle-class citizen of India and understand how the transition could be made smoother, the reasons for reluctance and how to tackle it and how convenience can be incorporated into our interventions, unlike the existing sustainable solutions.”*

### 5.4 Research Areas

#### 5.4.1. Understanding the Chawl System

##### **Background**

- Chawls as an urban translation of the rural wadi housing type - *wadis* have some spatial similarities to chawls in that the rooms are arranged along a common corridor with toilets outside the living areas.
- One joint family would live in one wadi but gradually as the population in Mumbai increased, various rooms were occupied by different families.
- Vernacular buildings are climate responsive

##### **Characteristics of a chawl**

- Buildings having rooms of nine feet by nine feet used as multifunctional areas
- Typically have two to four stories with ten to twenty units of around 150- 200 sq ft each on each floor
- Each unit has one or two rooms and opens in a common corridor
- Toilets are outside the units. The overall placement of the toilets differ from chawl to chawl but typically, four to five toilets are located towards the end of the chawl
- One common bathing area or a common washing area.
- Every unit also has one bathing area called ‘mori’
- The living room is typically used for entertaining, studying, sleeping, sitting, watching TV, chatting and so on
- The kitchen is used for cooking, dining, bathing, sleeping, sitting, changing and storing

##### **Desirability**

- Housing affordability combined with location to make the chawls desirable for their residents. It is very difficult for the residents to afford any other apartment type of housing in the same locations. Old chawls are seen next to tall multistory apartment buildings.
- The Rent Control Act has frozen the rent rates to the rates of the 1940s and this makes living in chawls very affordable.
- The residents do find using the common toilets awkward and inconvenient, especially the women, but they have become accustomed to this condition.

##### **Maintenance**

- Residents of chawls have maintenance funds which shows that the residents are willing to take care of the chawls in which-ever way they can.
- In the past, all residents on one floor had one electric meter and the final bill was divided between residents. After the use of electrical appliances increased, every dwelling unit had its own meter. Only the light fixtures in common areas are taken care of by the landlord.
- Lack of initiative from landlords for maintenance is related to the high labor and material costs in the city as against low rents the tenants pay their landlords. The residents therefore form funds for maintenance, security and garbage.
- Municipal water was available from the common tap only for an hour every morning. Every member of the family had to stand in a queue with drums to fill with water. Residents at Naigaon chawl contributed extra money in the maintenance fund and put up a tank in the open space around the building and by the help of a pump would fill individual tanks

### **Social Aspects**

- The internal courtyards form a very significant part of the chawl complexes from a social as well as spatial point-of-view.
- Residents of chawl feel secure when they can see their children playing within the community in the internal courtyard and not on the street, by stepping in the corridor, they are almost in their homes but are in touch with the rest of the community outside.
- Common corridor is a very interactive space. It is used for sitting, sleeping, reading, storing and playing. The families often make a sitting cabinet with storage in it and keep it in the corridor. This can be used by a family member to sleep on, in case a guest comes.
- All the neighbors are like family and they know that with one call for help, everyone would be there. This is the reason many of the participants do not lock their houses. The residents know their neighbors so well that they even know when they normally use the toilets and adjust their own use accordingly.
- Many women who don't work outside the home come together and babysit for those who are working. Since all the resident families are known, the mothers keep their children with these women without hesitation.
- Most of the children in the respective chawls go to the same school, they study together and go to school together. They would talk across their corridors and discuss homework.

### **Environmental Aspects**

- They have common toilets, washing areas, and spend most of the time in common spaces like the corridor. The behavior of the residents reduces the consumption of water, electricity and other energy. The sitting area in the open corridor also provides natural ventilation, reducing the need to use fans thus saving electricity.
- There is a lot of exchange of items between families. Anything not of use to one family is used by the other. This reduces wastage and promotes optimum use of available resources.
- The chawls also go close to the concept of co-living which is considered a sustainable way of living.

## 5.4.2 Understanding Apartments

### Background

- Old style of Mumbai houses began to disappear and in response to the ever-increasing demand for accommodation, builders divided the houses into many compartments without any consideration for light and ventilation
- Lakhs of unsold or unoccupied high-end apartments and millions of poorer citizens living in squalid and dehumanised housing - locked up funds worth Rs 13 lakh crores, resulting in huge unpaid loans to banks
- Despite discounts and freebies offered by builders and relentless seductive advertising promising unimaginably utopian lives to buyers, the number of unsold apartments has hit its highest mark

### Maintenance

- Housing complexes have a fixed amount that they need to pay each month as the maintenance charges. These can be different from household to household depending on the facilities availed by them
- There is a committee that looks after the maintenance grievances and allocates funds whenever and wherever required
- Generally the majority of the members are considered to make any decision.

### Social Aspects

- In the book A Pattern Language: Town-Buildings-Construction, the authors refer to Dr. Cappon's clinical experiences which relate mental health to high rises which says that mothers often become restless if they cannot see their young ones playing on the street.
- Dr. Cappon also says that living in high rise buildings deprives children of kinetic activity leading to lethargy and antisocial behavior.
- In A Pattern Language: Town-Buildings-Construction the authors suggest how buildings can be configured to create successful social spaces. Every building, for example, needs a space where people are still in the building but are in touch with the outside and windows are not enough.
- As Friederike Schneider mentions in his book Floor Plan Manual: Housing, in contemporary housing “floor space is typically dedicated to achieve a maximum of pure dwelling-unit floor space” and is not used for common spaces that 64 create social connections between neighbors.

### Environmental Aspects

- Because of concretisation, open soil patches are covered and water can't seep into the ground. Groundwater is already depleting at an alarming rate and this makes it even more difficult for water to seep into the ground
- Generally people living in apartments are financially in a better position and have enough to fulfill their needs. They have more purchasing power and tend to choose to live a comfortable life which some times may not good for the environment
- Sometimes to maximise area available to develop buildings, trees in vicinity are killed

- Some housing complexes have gardens. While these are mostly for beautification, they trees and plants selected can be such that they support the entire housing ecosystem

### 5.4.3 Conclusion

- The chawls provide the middle class with affordable living, security, friendly neighbors, play areas for children, social interaction and a future outlook based on sharing and maximizing assets.
- Location, close-knit community social support systems and affordability are the three main reasons why the residents of the chawls want to continue to live there. Some chawl residents earn enough to afford a slightly bigger place in the suburbs but are too attached to the location and the people in the chawl to move elsewhere.
- Combination of shared spaces and spatial optimization enable affordable lifestyles that are highly functional within the crowded and expensive city of Mumbai. The spatial configuration of the chawl creates opportunities for the residents to come closer as one social unit.
- By comparing these two types of housing we realised that convenience is also a major factor that affects the adoption of sustainable practises.
- The lifestyle in chawls is more sustainable but is also very inconvenient, but the residents don't have much choice as there are no other affordable options and they get used to it over time. People who have a choice would prefer a life of convenience.

### **Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable**

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

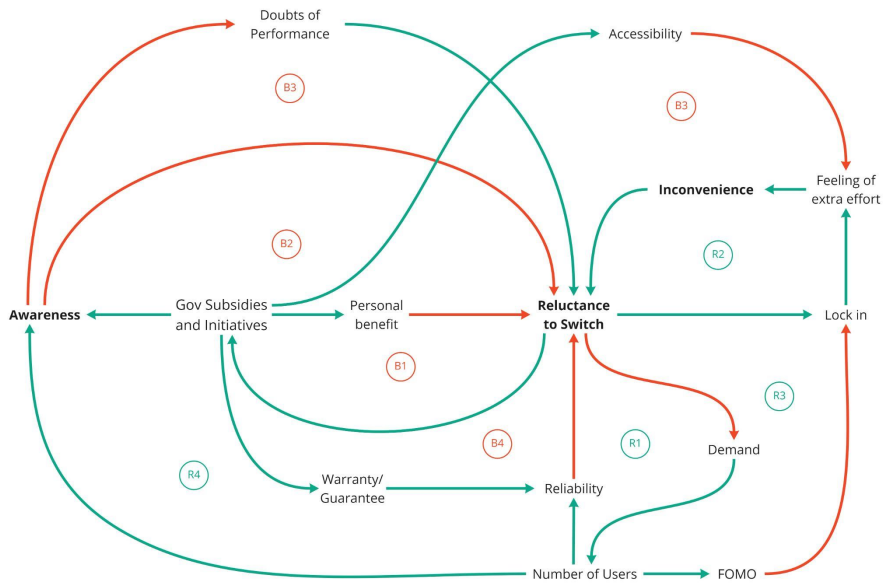
11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials



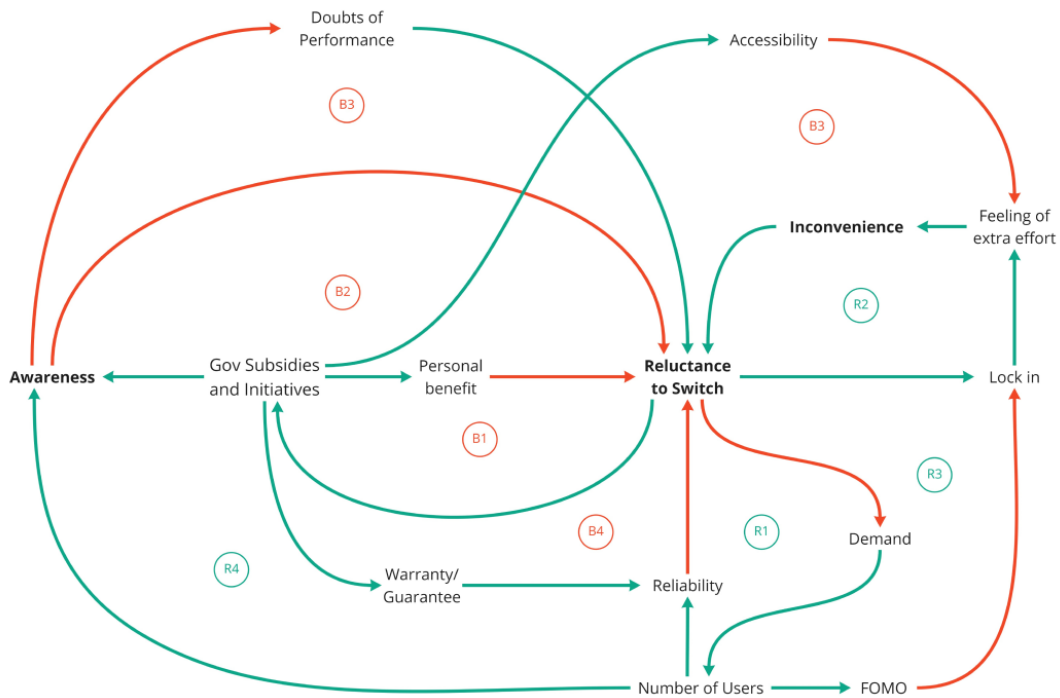






We realise how reluctance and inconvenience reduce their demand, and hence it's mass production and the no. of users decrease, which ends up increasing perceived cost and decrease in awareness.. (and hence the loop).

**6.1.3 Parent Causal Loop 3** - Involves effects of variables like Personal benefit, Accessibility, Lock in, Inconvenience, Reliability and Awareness



The third diagram looks at this situation from the perspective of human resources.

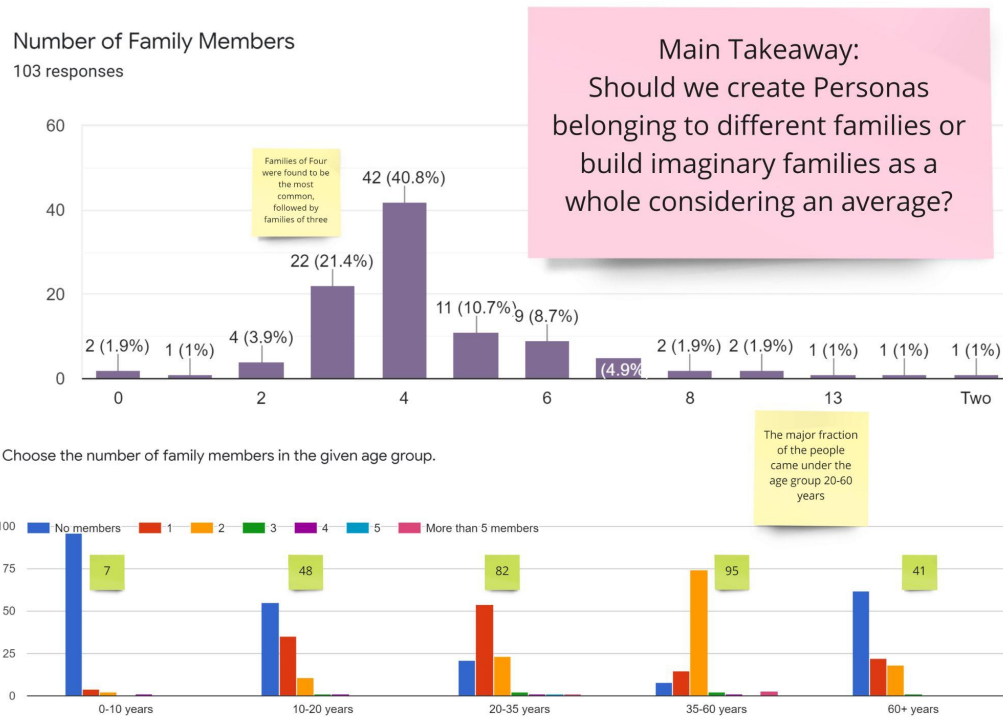
With reluctance among the public, there is more of the government's involvement as initiatives hence creating awareness, clearing possible misconceptions and doubts. While on a more personal level, Reluctance creates a "lock in" in our head, which makes us unable to change from our current state of mind, hence leading to inconvenience.

## 6.2 Primary Research

We created a [Survey](#) on Google Forms to understand people's take on Sustainability. It was focused on the housing of people belonging to the Middle Class.

### 6.2.1 The Demographics

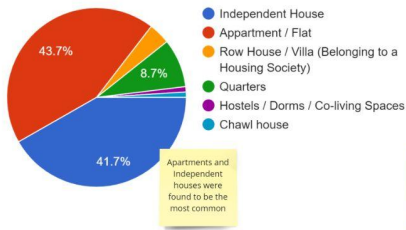
- Families of Four were found to be the most common, followed by families of three
- The major fraction of the people came under the age group 20-60 years
- There were
  - 7 people belonging to 0 - 10 years
  - 48 people belonging to 10 - 20 years
  - 82 people belonging to 20 - 35 years
  - 95 people belonging to 35 - 60 years
  - 41 people older than 60 years



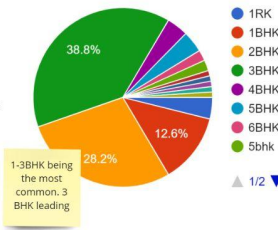
The major question at this point was whether to create Personas for different kinds of people belonging to different families or build imaginary families as a whole considering an average?

## Understanding the Utilization of Space

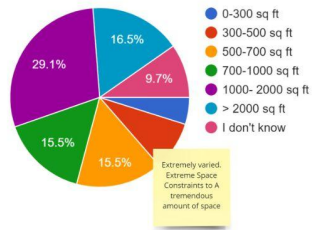
What type of a house do you live in?  
103 responses



BHK (Bedroom, Hall, Kitchen)  
103 responses



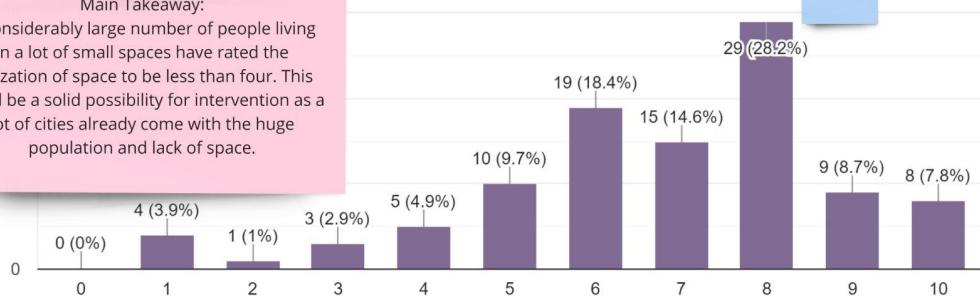
Area of your house  
103 responses



How efficiently do you think you use the available space in your house?  
103 responses

103 responses

**Main Takeaway:**  
A considerably large number of people living in a lot of small spaces have rated the utilization of space to be less than four. This could be a solid possibility for intervention as a lot of cities already come with the huge population and lack of space.



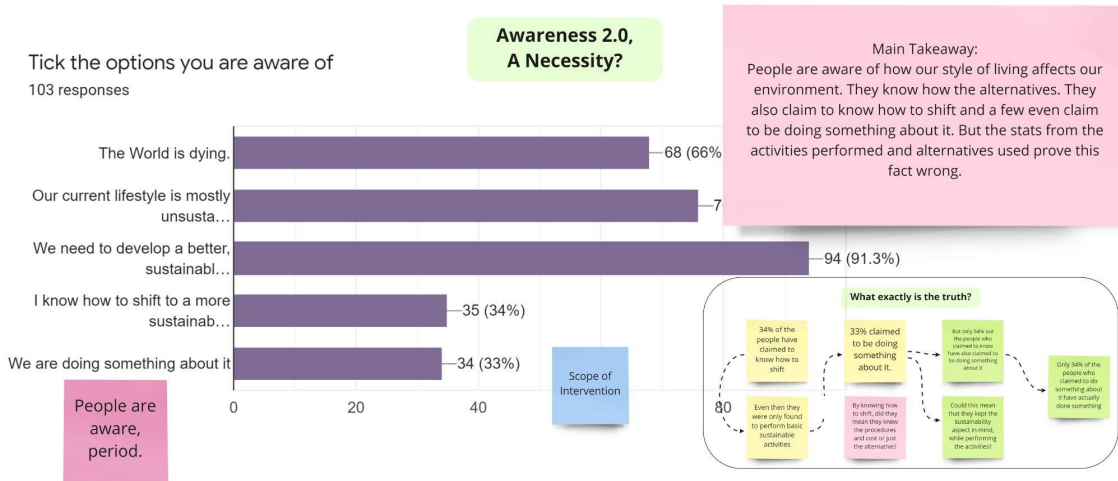
Smallest					Condensing the specifications to identify the extremes					Largest				
1RK	0-300 sq ft	Apartment / Flat	Apparently Zero	2/10	1RK	300-500 sq ft	Apartment / Flat	5 Members	8/10					
1BHK	0-300 sq ft	Independent House	7 Members	1/10	1BHK	700-1000 sq ft	Independent House	6 Members	10/10					
2BHK	300-500 sq ft	Independent House	4 Members	1/10	2BHK	>2000 sq ft	Apartment / Flat	8 Members	9/10					
3BHK	500-700 sq ft	Apartment / Flat	4 Members	1/10	3BHK	>2000 sq ft	Apartment / Flat	10 Members	9/10					

### 6.2.2 Current Housing and Space

- Apartments and Independent houses were found to be the most common
- 1-3BHK being the most common. 3 BHK leading
- Extremely varied. Extreme Space Constraints to a tremendous amount of space

A considerably large number of people living in a lot of small spaces have rated the utilization of space to be less than four. This could be a solid possibility for intervention as a lot of cities already come with a huge population and lack of space.

## 6.2.3 Analysing their Awareness



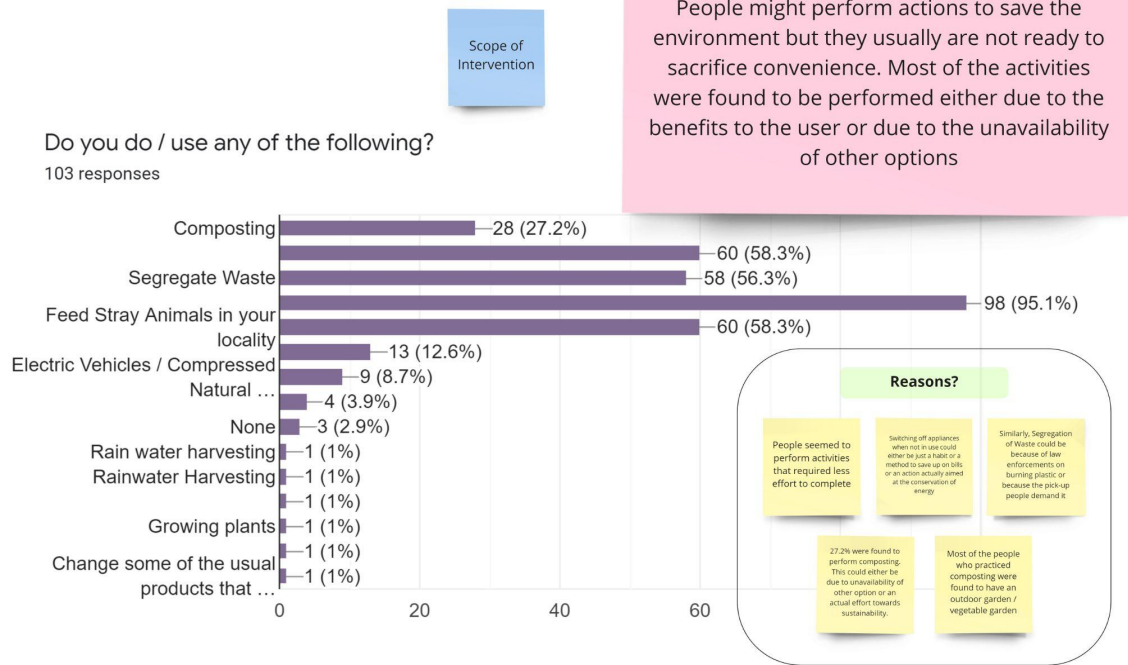
- **People are aware, period.**
- 34% of the people have claimed to know how to shift
- Even then they were only found to perform basic sustainable activities
- 33% claimed to be doing something about it.
- By knowing how to shift, did they mean they knew the procedures and cost or just the alternative?
- But only 54% out of the people who claimed to know have also claimed to be doing something about it
- Could this mean that they kept the sustainability aspect in mind while performing the activities?
- Only 34% of the people who claimed to do something about it have actually done something

People are aware of how our style of living affects our environment. They know the alternatives. They also claim to know how to shift and a few even claim to be doing something about it. But the stats from the activities performed and alternatives used, prove this fact wrong.

## 6.2.4 Understanding the Nature of their Actions

- People seemed to perform activities that required less effort to complete
- Switching off appliances when not in use could either be just a habit or a method to save up on bills or an action actually aimed at the conservation of energy
- Similarly, Segregation of Waste could be because of law enforcements on burning plastic or because the pick-up people demand it
- 27.2% were found to perform composting. This could either be due to the unavailability of other options or an actual effort towards sustainability.
- Most of the people who practiced composting were found to have an outdoor garden / vegetable garden

## Understanding the Nature of Actions

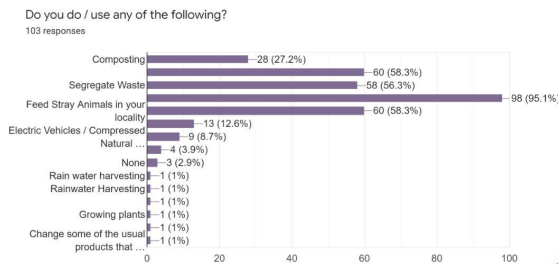


People might perform actions to save the environment but they usually are not ready to sacrifice convenience. Most of the activities were found to be performed either due to the benefits to the user or due to the unavailability of other options.

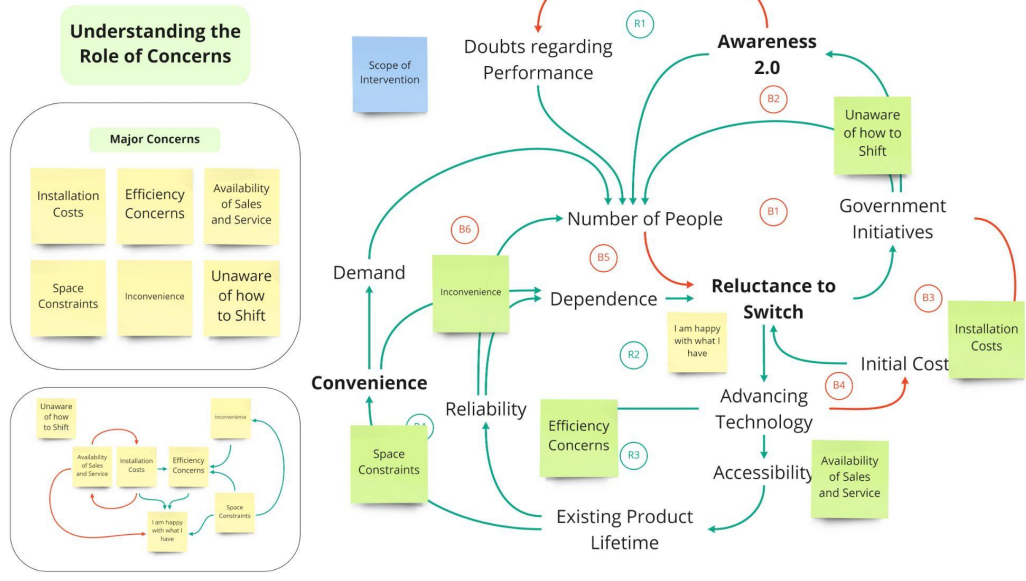
### 6.2.5 Understanding the Role of Concerns

- The major Concerns were
  - Installation Costs
  - Efficiency Concerns
  - Availability of Sales and Service
  - Space Constraints
  - The Lack of Convenience
  - Lack of Awareness on How to Shift

It is clearly understood that the responders are not fully aware of what it is like to be a user of a sustainable product. They are mostly concerned about post-purchase efficiency and installation costs while, in most cases, they are not exactly a big deal. For example, people are worried about installation costs when there is a possibility that in a couple of years they would have saved enough to reciprocate.



**Main Takeaway:**  
It is clearly understood that the responders are not fully aware of what it is like to be a user of a sustainable product. They are mostly concerned about post-purchase efficiency and installation costs while, in most cases they are not exactly a big deal. For example, people are worried about installation costs when there is a possibility that in a couple of years they would have saved enough to reciprocate.



### 6.3 Deriving Possibilities of Intervention

We then moved to exploring the factors that would influence our possible interventions, for example, how our interventions would age (considering how it is a gradual process), understanding how people would perceive these changes, how we can make it more life centric (also includes social factors), looking at the surrounding environment, their financial status and finally, their own home space.

We then tried to explore possible areas, mostly looking into the home space in particular. as we mapped out rooms, activities that take place in a house, common dedicated spaces, categories of objects at home. We also considered the governance aspects, along with the locality, preservation of culture and environmental conservation.

### 6.4 Personas

With the data in place, we created three persona groups. We tried to cover the most common types of housing, financial status, age groups and level of awareness.



## 6.4.1 Household One



The first household consisted of an upper-middle-class family of four living in a 3BHK apartment. Here we had the least number of constraints.

### - The Family

- Family of 4
- Have enough and a Little More
- 3BHK, 800sq.ft apartment on the sixth floor
- Based in Nashik, but lives in Mumbai
- Four Members : Grandmom, Son, and his Wife, Teenage Daughter
- Has one Car for the whole family, parked in the common parking space
- Three Bedrooms, one for Grandma, one for the couple (bath-attached), and one for the daughter
- Daughter's room doubles as a guest room
- There are two bathrooms in total
- Have a balcony which is also used as a mini garden and laundry space
- Three smartphones, one cell phone, a TV, a PC, a WM, a refrigerator and a microwave for the whole house

### - G, Grandmom, 75

- Retired Government School Teacher
- Entitled to Pension
- Mother to S and D and Grandma to GD
- Capable of managing her own things
- Minor Case of Asthma, On medication for blood pressure
- Knows how to make calls and use basic appliances
- Interests : Gardening, Cooking, Watching Serials.
- Insists on keeping switching lights and taps off after use as she is concerned about bills
- Wears Saree, day and night

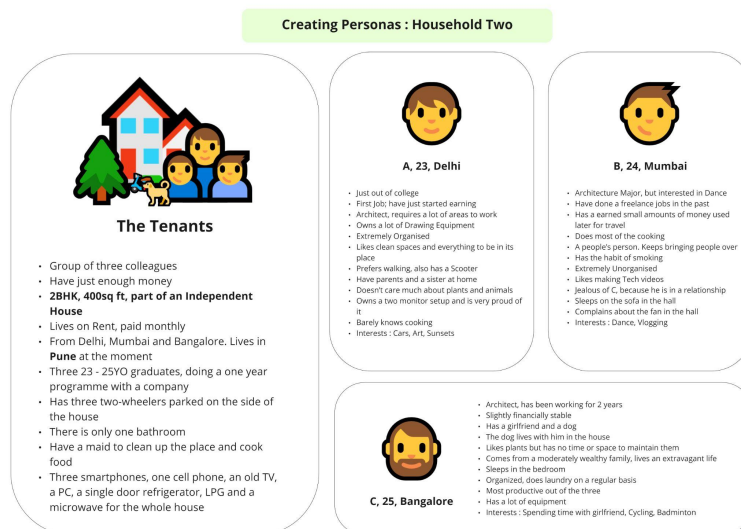
### - S, Son, 52

- Owns a Small Business
- Main income through profit made
- Sales depend on the season



- Sometimes brings a few products home from work for storage/quality checks
  - Tries his best to not spend money on unnecessary things
  - Husband to D and Father to GD
  - Almost never home, always on calls
  - Loves to Order food and Eat Out
  - Interests : Sports, Home Decor, Long Drives
  - Has a lot of Relatives who keep coming over
  - Prefers an ultramodern lifestyle. Has built a decent home
- **W, Wife, 47**
    - Teacher at a Primary School
    - Earns a small amount, though enough to sustain basic monthly needs
    - Have Virtual Classes these days
    - Wife to S and Mother to D
    - Has enough technological knowledge to operate smartphones, PC's and appliances
    - Extremely lazy, works only because she has no other choice
    - Craves husband's attention but understands that he is busy
    - Helps G with chores and gardening
    - Hates catering to visitors, but always has to
    - Interests : Home Decor, Traditional Fashion, Movies
- **D, Daughter, 16**
    - 11th Grade student
    - Goes to a school 3km away, on a school bus
    - Classes are virtual this year
    - Daughter to W and S, and Granddaughter to G
    - Good at Studies and has a room to herself
    - Likes to go on trips with friends and invite them over
    - Doesn't like spending a lot of money
    - Want a dog but the apartment is not dog-friendly
    - Interests : Dance, Art, Indoor and Outdoor Games

## 6.4.2 Household Two



The second household consisted of three employees of an architecture firm living in a small 2BHK independent house along with a pet. They have just started earning and don't have a lot of money to spare.

- **The Tenants**

- Group of three colleagues
- Have just enough money
- 2BHK, 300-500sq ft
- Lives on Rent, paid monthly
- From Delhi, Mumbai and Bangalore. Lives in Pune at the moment
- Three 23 - 25YO graduates, doing a one year programme with a company
- Has three two-wheelers parked on the side of the house
- There is only one bathroom
- Have a maid to clean up the place and cook food
- Three smartphones, one cell phone, an old TV, a PC, a single door refrigerator and a microwave for the whole house

- **A, 23, Delhi**

- Just out of college
- First Job; have just started earning
- Architect, requires a lot of areas to work
- Owns a lot of Drawing Equipment
- Extremely Organised
- Likes clean spaces and everything to be in its place
- Prefers walking, also has a Scooter
- Have parents and a sister at home
- Doesn't care much about plants and animals
- Owns a two monitor setup and is very proud of it
- Barely knows cooking
- Interests : Cars, Art, Sunsets

- **B, 24, Mumbai**

- Architecture Major, but interested in Dance
- Have done a freelance jobs in the past
- Has earned small amounts of money used later for travel
- Does most of the cooking
- A people's person. Keeps bringing people over
- Has the habit of smoking
- Extremely Unorganised
- Likes making Tech videos
- Jealous of C, because he is in a relationship
- Sleeps on the sofa in the hall
- Complains about the fan in the hall
- Interests : Dance, Vlogging


- **C, 25, Bangalore**

- Architect, has been working for 2 years
- Slightly financially stable

- Has a girlfriend and a dog
- The dog lives with him in the house
- Likes plants but has no time or space to maintain them
- Comes from a moderately wealthy family, lives an extravagant life
- Sleeps in the bedroom
- Organised, does laundry on a regular basis
- Most productive out of the three
- Has a lot of equipment
- Interests : Spending time with girlfriend, Cycling, Badminton


### 6.4.3 Household Three

Creating Personas : Household Three




**The Family**

- **1BHK, 300sq.ft Apartment** on the third floor in Saki Naka
- Two single beds in the bedroom, a sofa and a gaddi
- Two couples
- Unaware of the consequences on the environment
- Have to work hard to make the end meet
- Most of the work is done in the hall
- Small Kitchen with just enough space to manage all the meals
- Have all the means in the hall
- Laundry is hung on the small grilled balcony
- Have a makeshift Puja Room in Hall
- Two Smartphones, Two cell phones, one single door refrigerator, a CRT TV, LPG




**L, Big Brother, 32**

- Works at a construction site
- Gets Daily Wages
- Educated till 8th Grade
- Hardworking
- Does other work for additional money
- Married to Hospital for work
- Very Conservative
- Comes back late at night
- Main source of income for the family
- Not particular about pricing, rents and keeping the family debt free




**M, Big Brother's Wife, 30**

- Used to work as a maid
- Strained going because of baby
- Educated till 8th Grade
- Acts in house
- Like watching TV when alone in the house
- Does the majority of the whole household
- Vegetarian
- Follows Religion
- Not allowed to do things other than taking care of the household and going to temple
- Knows a little bit of natural medicine




**N, Younger Brother, 30**

- Carpenter
- Works under a contractor
- Gets paid depending on the work done each day
- Sometimes runs out of work and has to depend on brother
- Lends car to his brother
- Works as a driver on free days
- Educated till 8th Grade
- Vegetarian
- Knows a little bit of technology



**O, Younger Brother's Wife, 29**

- Works as a maid
- Goes to three different houses during different times of the day
- Educated till 8th Grade
- Likes to study, very bright student
- Interested in learning new things
- Likes little things that make the house pretty
- Interested in fashion and jewelry
- Does little chores as a side thing through-out official
- Smart enough to take care of groceries for the household



**P, Big Brother's Baby, 1**

- Uses Diaper only when going out
- Needs attention at all times
- Tends to choke on things
- Minor health issues due to lack of hygiene and dust

The third household consisted of a family of five which is not financially stable. They are not well educated and live in a small 1BHK apartment.

#### - The Tenants

- 1BHK, 0-300sq.ft Apartment on the third floor
- Two single beds in the bedroom, a sofa and a gaddi
- Two couples
- Unaware of the consequences on the environment
- Have to work hard to make the end meet
- Most of the work is done in the hall
- Small Kitchen with just enough space to manage all the meals
- Have all the means in the hall
- Laundry is hung on the small grilled balcony
- Have a makeshift Puja Room in Hall
- Two Smartphones, Two cell phones, one single door refrigerator, a CRT TV, LPG

#### - L, Big Brother, 32

- Works at a construction site
- Gets Daily Wages
- Educated till 8th Grade
- Hardworking,

- Does other work for additional money
- Moved to Mumbai for work
- Very Conservative
- Comes back late at night
- Main source of income for the family
- Very particular about paying rents and keeping the family debt-free
  
- **M, Big Brother's Wife, 30**
  - Used to work as a maid
  - Stopped going because of baby
  - Educated till 4th Grade
  - Runs the house
  - Like watching TV when alone in the house
  - Does the laundry of the whole household
  - Vegetarian
  - Extremely Religious
  - Not allowed to do things other than taking care of the household and going to temple
  -
  
- **N, Younger Brother, 30**
  - Carpenter
  - Works under a contractor
  - Gets paid depending on the work done each day
  - Sometimes runs out of work and has to depend on brother
  - Looks up to big brother.
  - Works as a cleaner on free days
  - Educated till 10th Grade
  - Vegetarian
  - Knows a little bit of technology
  -
  
- **O, Younger Brother's Wife, 29**
  - Works as a maid
  - Goes to three different houses during different times of the day
  - Educated till 8th Grade
  - Likes to study, very bright student
  - Interested in learning new things
  - Excellent Cook,
  - Likes little things than make the house pretty
  - Interested in Fashion and Jewellery
  - Stitches Clothes as a side thing, though not official
  - Earns enough to take care of groceries for the household
  - Knows a little bit of natural medicine
  
- **P, Big Brother's Baby, 1**
  - Uses Diaper only when going out
  - Needs attention at all times
  - Tends to chew on things
  - Minor health issues due to lack of hygiene and dust

## 6.5 Feedback Received post Week Three Presentation

- Haven't done Ideation yet but analysis was pretty detailed.
- Work has been nicely done, but can't get a sense of where it is going.
- We probably know where we are going but are finding it difficult to compile and put into words
- There is a lot of material and now it is time to derive a coherent picture
- The foundation and framework has been nicely done. Now focus on specific personas and specific scenarios.
- Don't take money constraints way too seriously. The reason why someone could be living in a not so well off place could also be because of reasons other than money constraints.
- Re-check our assumptions regarding people's way of living.
- Bring in the coherence.
- The do goals and be goals make a lot of sense.
- Try mapping out a day in the life of 3-4 people belonging to different types of housing societies.
- Consider the type of house as well, whether it is under construction or new or old or refurbished.

## References

About Chawls

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