

Environics Trust

VIEWSLETTER

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International Women Solidarity

'Promoting Empowerment and Leadership of Women Workers in Asia'

Shefali Sharan

Women empowerment or say giving an authority to women is need of the hour, yet women - especially working women - continue to be deprived and marginalised. They are often forced to participate in the labour markets on an unequal basis with men, suffering low pay, unhealthy working conditions and are deprived of the right to participation.

Asia Monitor Resource Centre's Labour and Gender Programme, initiated in 2013, was intended to examine and address some of these issues. In this connection, a regional meeting with partners from 9 countries was organised in Siem Reap, Cambodia, during 23rd October-25th October 2018. This three day meeting was held to discuss, reflect and share the current state of women workers in the region along with struggles and experiences.



Group photo of participants

Representatives of organizations from Bangladesh, Cambodia, Hong Kong, India, Indonesia, Myanmar, Pakistan, Philippines, Sri Lanka, and Thailand, participated in this workshop and discussed on different issues such as political participation of informal women workers in South Asia, violence against women in Southeast Asia, social protection and women workers in the informal sector, women's leadership and other issues crucial to women.

The three day meet started with a key note from Irene Xavier from Committee for Asian Women. She mainly focused on gender-based violence stating that we don't talk about gender-based violence and measures to tackle gender-based violence

– it is either not been considered as an important part of women workers life or it is a struggle to get a registration done for gender-based violence. Giving example

of Cambodian women workers, she stated that she has worked with them but has not been very successful as they face lot of restrictions. She further explained by giving an example about a woman who approached her through Facebook. She worked as a domestic help but along with household chores she was also doing other works such



as gardening, taking care of children, etc. One day her employer raped her and when he was asked by the agent he simply denied the allegations and continued to harass her in other ways. She wanted to leave the job but was helpless as she was under the debt. She added that this is a very common story of women engaged as workers.

As stated above gender-based violence is not being talked about we need to look at why gender-based violence is still considered as a private matter. We have institutions where women work but are not being taken into consideration. We need to think how we can address gender-based violence more effectively.

Talking about political participation of informal workers, Sujata Mody, Penn Thozhilalargal Sangam, India, shared her experience that how initially she struggled to meet women, they were always introduced by male members of the family. Later she decided to meet women on her own and know their problems. She was successful to form women workers union which deals with community level issues and issue of work, including local leadership which with people connect. The highlight of the talk was that we need to create a separate stage for ourselves.

On the other hand, Ou Tepphallin, Cambodian Food and Service Workers Federation, which works with restaurant workers, coffee shop workers and massage workers presented the condition and scenarios of the workers. The organization tries to mobilize workers at work itself. It has been successful in forming the union which plays an important role and together they have addressed 26 issues.

Arifa from Bangladesh highlighted the wage gap issue in informal sector, the ratio is 20:80. There are no fixed working hours or job security and the workers even deal with mental harassment. The labour laws have not been implemented properly. However, they have formed cooperative with the workers of informal sector.

Coming to women leadership, Chitra from Sri Lanka shared that the trade unions mainly comprise male members. Politics is one major factor in every trade union along with a strong patriarchal society. The religious and social norms prevailing



in the society is another reason which creates hindrance for women to occupy a higher space in the hierarchy.

Sharif from Indonesia talked about the concept of critical education. By critical education he meant that to educate women about daily living such as cooking, stitching and other basic day-to-day activity.

Being one of the participants, Envirionics trust presented its work

mainly focused on social protection schemes and women empowerment mainly aimed at addressing the livelihood of women. I talked about how we started the sanitary napkin-making unit, process of creating awareness about health and hygiene in the different areas where we work, and what are our plans to move ahead.

We had few group activities which helped us in discussing the issues in depth and eventually to form an action plan. One of such activities was where we raised various questions such as how to empower or disempower male domination in trade union/s? What points should be considered while building an educational base in trade union on women's issues? And what is the important element to encourage democratization of union? We were divided in three groups, based on these questions and were asked to hold discussions group-wise, however it turned out to be a collective effort. Some of the answers which came forward through this exercise were - giving equal role or space to women, hearing their opinions, creating awareness among them, etc. While discussing about what should be considered when we build education in trade unions, it emerged from discussion that different and innovative ways to impart education among and within the trade unions, like using audio-video clippings, flip charts, movie screening, etc. needs to be adopted.

To conclude, the three day meeting was indeed a good learning experience where we not only discussed, shared and articulated - about the women-centered issues, how we can do our best to work collectively towards making this world a better place for women, and also to examine if additions or changes are needed in our present plan. Such meetings are a helpful for a fresher like me to look back and understand the subject in detail, learn from the veterans and bring change in my own way.

The Burning Issue

Let's Eradicate Malnutrition Now

Raihanul Sarkar

A recent article in the newspaper regarding the death of children in Yemen due to malnourishment made me wonder what situation in our country is like. Well, the situation is no better than Yemen.

The major malnourished states of the country include Bihar, Jharkhand, Madhya Pradesh, Tamil Nadu, and Uttar Pradesh. Rajasthan and Maharashtra also come in the list of states prominent with malnutrition. With the world's largest programme to combat malnutrition - Integrated Child Development Scheme - India has still proved to be incapable of eliminating this blot. What haunts my mind is that in a country of billions, where 60 per cent of its population continues to be engaged in agriculture, we are unable to meet the food demand in the country. A country famous for being one of the top food-producers in the world is also infamous for being a country with substantial section of population being malnourished. If we look at the statistics, the numbers are disappointing. About 38 per cent of the children under five are affected by stunting and about 21 per cent of children under 5 have been defined as 'wasted' or 'severely wasted' - which means that they do not weigh enough for their height. Moreover, 51 per cent of the women of reproductive age suffer from anemia and more than 22 per cent of adult women are overweight. For the sake of comparison, the percentage of overweight men in the country is much lower and stands at 16 per cent of adult men.

Malnutrition in children is caused due to malnutrition in mothers. Unless there is a healthy mother, there can't be a healthy child. A pregnant woman must be given a highly nutritious meal, but due to poverty and illiteracy, mothers are not taken good care of and therefore their health tends toward malnutrition. Malnutrition should not be considered a disease, rather it is directly linked with people's purchasing power and household economy. It can be very well tackled with the right food intake in the right quantity. The basic problem lies in lack of awareness among wider masses regarding food and nutrition. They eat whatever fills their stomach not knowing whether it is good for health or not. There is no one to tell them about the health benefits of each and every food they eat.

Gender inequality is also witnessed in Indian villages, which is another significant factor affecting malnutrition, especially among girls. A girl is given less food to eat, compared to her male sibling. This bias comes because of a centuries-old misconception that boys need more energy to work out in the field during daytime. A girl is cursed if she eats more because it would make her lazy, while a boy is encouraged to eat more or else he would become weak.

Improper sanitation helps in disease creation. Most villages in our country have open uncovered drains that are breeding ground for various diseases. Majority of the population living in villages defecate in open - near river banks or on the agricultural fields. Rain washes these faeces and drains them into the river or seeps them into the soil. This contaminated water is consumed by people and

animals, creating a havoc of diseases. When we talk about cleanliness, we should not only talk about the cleanliness of our surrounding, but also of ourselves.

Self-cleanliness is of utmost importance because it is we who are the vectors for various diseases. One such aspect of cleanliness that has been neglected from times immemorial is the period of menstrual cycle in reproductive women. Women undergo hormonal changes each month leading to menstruation. Women in villages use clothes as a protection against stains, which they use again and again. Thus, the cloth becomes a breeding ground for deadly bacteria and pathogens which may enter the uterine cavity of the subject and cause uterine infection. To prevent this use of sanitary pads is necessary. They are clean and sterile, and also can be used only once, therefore eliminating the chance of reuse. Communities must be made aware of the benefits of such sanitary pads and their use must be promoted. In urban areas, these sanitary pads are very expensive, and only a few afford to use them. Contrary to popular belief, these pads can be manufactured using simple raw materials and communities can be trained to manufacture these pads for the welfare of the society and also for economical purposes. The Envirionics Trust is manufacturing such sanitary pads that are low cost but highly efficient. The initiative has received tremendous appreciation from all parts of the society.



Using sawdust and wheat straw fragments for Mushroom cultivation

To eradicate malnutrition, the first and foremost goal must be to provide access to nutritious food and clean drinking water for every individual. The Envirionics Trust has been addressing to minimize malnutrition directly and indirectly – directly by promoting mushroom cultivation and indirectly by skill enhancement aimed at income generation. Oyster mushrooms are alternate source of nutritional

food from agricultural wastes. Oyster mushrooms are a goldmine of nutrition. They are easy to grow, require minimum input and can be introduced in our staple diet. These can be incorporated into the government mid-day meal scheme to ensure that children may get adequate nutrition for healthy growth and development. Mushroom cultivation in villages can emerge as a new self-employment opportunity for the villagers. With this, they can fill their stomach as well as their families' stomachs without any gender bias. People can get employed too.

One more initiative to fight malnutrition could be to provide education on the subject of food and nutrition. In every village, we should set up programmes where the importance of food and nutrition will be discussed and people will be enlightened with the health benefits. To provide access to clean drinking water, we can help install efficient and inexpensive water purifier systems in every household. Technology must not be confined to the cities; it must reach the needy and contribute in the uplifting of their lives. With the advancement of science and technology, eradicating malnutrition seems easy and we must pledge to achieve this milestone in another half of a decade.

Air Pollution in India – Crucial Aspects

Santosh



Air pollution has emerged as a major global problem in developing and developed countries, both. In India, the situation has grown far worse in recent times due to various factors - agricultural activities, burning of fossil fuels, mining operation, indoor activities, dust, demolition in the construction industry, forest fires, etc. The visible and measurable impacts of air pollution is at two levels – global atmosphere and human beings. The manifestations of global impacts are reflected in climate changes, acid rain, and ozone layer depletion whereas its ill-effects on human beings are seen in the form of increased air-pollution related deaths (respiratory diseases, heart ailments, cancer, etc.).

The then Minister for Environment, Forests & Climate Change launched the National Air Quality Index (NAQI) in 2014 under 'Swachh Bharat Abhiyan.' It is outlined as 'One Number-One Color-One Description' for the common man to judge the air quality within his vicinity (table 1).

Table 1
Air Quality Indices (AQI) in India

AQI	Remark	Color Code	Possible Health Impacts
0-50	Good		Minimal impact
51-100	Satisfactory		Minor breathing discomfort to sensitive people
101-200	Moderate		Breathing discomfort to the people with lungs, asthma and heart diseases
201-300	Poor		Breathing discomfort to most people on prolonged exposure
301-400	Very Poor		Respiratory illness on prolonged exposure
401-500	Severe		Affects healthy people and seriously impacts those with existing diseases

Source: Central Pollution Control Board, 18 November 2009

Note: Values above 500 are not considered in computation of AQI

Each category corresponds to a different level of health concern:

- **Good.** The AQI value for your community is between 0 and 50. Air quality is satisfactory and poses little or no health risk.
- **Satisfactory.** The AQI is between 51 and 100. Air quality is acceptable; however, pollution in this range may pose a moderate health concern for a very small number of individuals. People who are unusually sensitive to ozone or particle pollution may experience respiratory symptoms.
- **Moderate.** When AQI values are between 101 and 200, members of sensitive groups may experience health effects, but the general public is unlikely to be affected.
 - *Ozone:* People with lung disease, children, older adults, and people who are active outdoors are considered sensitive and therefore at greater risk.
 - *Particle pollution:* People with heart or lung disease, older adults¹, and children are considered sensitive and therefore at greater risk.
- **Poor.** Everyone may begin to experience health effects when AQI values are between 151 and 200. Members of sensitive groups may experience more serious health effects.
- **Very Poor.** AQI values between 201 and 300 trigger a health alert, meaning everyone may experience more serious health effects.
- **Severe.** AQI values over 300 trigger health warnings of emergency conditions. The entire population is even more likely to be affected by serious health effects.

For the sake of comparison, AQI in eight cities in two different states of India and in Delhi, is shown in tables 2 and 3.

Table 2
AQI in three cities of three states

S.N.	State	City	Station Name	Current AQI value
1	Andhra Pradesh	Amaravati	Secretariat, Amaravati - APPCB	214
2		Rajamahendravaram	Anand Kala Kshetram, Rajamahendravaram - APPCB	237
3		Tirupati	Tirumala, Tirupati - APPCB	065
4		Vijayawada	PWD Grounds, Vijayawada - APPCB	071
5		Visakhapatnam	GVM Corporation, Visakhapatnam - APPCB	237
6	Bihar	Gaya	Collectorate, Gaya - BSPCB	313
7		Muzaffarpur	Muzaffarpur Collectorate, Muzaffarpur - BSPCB	420
8		Patna	IGSC Planetarium Complex, Patna - BSPCB	405

Source: Central Pollution Control Board, 7 December 2018, Time: 15:00:00

Table 3
AQI in Delhi

S.N.	State	City	Station Name	Current AQI value
1	Delhi		Mundka, Delhi - DPCC	397
2			NSIT Dwarka, New Delhi - CPCB	191
3			Najafgarh, Delhi - DPCC	324
4			Narela, Delhi - DPCC	346
5			Nehru Nagar, Delhi - DPCC	409
6			North Campus, DU, New Delhi - IMD	316
7			Okhla Phase-2, Delhi - DPCC	363
8			Patparganj, Delhi - DPCC	365
9			Punjabi Bagh, Delhi - DPCC	347
10			Pusa, Delhi - DPCC	348
11			Pusa, New Delhi - IMD	322
12			R K Puram, New Delhi - DPCC	368
13			Rohini, Delhi - DPCC	391
14			Shadipur, New Delhi - CPCB	327
15			Sirifort, New Delhi - CPCB	347
16			Sonia Vihar, Delhi - DPCC	362
17			Sri Aurobindo Marg, Delhi - DPCC	322
18			Vivek Vihar, Delhi - DPCC	367

Source: Central Pollution Control Board, 7 December 2018, Time: 15:00:00

The main factors behind the soaring pollution in Delhi (2) are listed below –

1. National capital shares its border with the states of Haryana and Uttar Pradesh. Stubble burning by farmers in these states has often been blamed for pollution in Delhi. It is estimated that approximately 35 million tonnes of crop residue is set afire in these states.
2. Vehicular emission is another crucial pollutant increasing air pollution and smog. CPCB and NEERI have declared vehicular emission as a major contributor to Delhi's increasing air pollution.
3. As the winter season sets in, dust particles and pollutants in the air become unable to move. Due to stagnant winds, these pollutants get locked in the air and affect weather conditions, resulting in smog.
4. Another reason of air-pollution is over-population in the capital. Over-population only adds up to the various types of pollution, whether it is air pollution or noise pollution.
5. Investing less on public infrastructure is another reason of air pollution. In India, investment in public transport and infrastructure is low which leads to congested roads, and hence air pollution.
6. Large scale construction in Delhi-NCR is another culprit that is increasing dust and pollution in the air. Considering the dipping air quality, a number of construction sites have stalled work, as directed by the Delhi Government.
7. Industrial pollution and garbage dumps are also increasing air pollution and building-up smog in the air.
8. Despite the ban on cracker sales, firecrackers were a common sight this Diwali. It may not be the top reason for this smog, but it definitely contributed to its build up.

In last decade, waste mis-management has emerged as another critical factor increasing air pollution. The amount of untreated waste (municipal solid waste, plastic waste, domestic waste, e-waste, bio-medical waste, etc.) is hundreds of tonnes/day, most of which is dumped on the outskirts of a city, which sooner or later is put on fire.

Air is a heterogeneous mixture of various gases plus smoke, which on mixing with fog is commonly named as 'smog.' CPCB has identified 12 major pollutants in India contributing to air pollution in the country. As far as monitoring of AQ is concerned, Central Pollution Control Board (CPCB) is monitoring ambient air quality in 74 Tier-II cities.

Table 4
Permissible safe limit of important pollutants in India

S. N.	Pollutant ($\mu\text{g}/\text{m}^3$)	Time Weighted Average	Concentration in Ambient Air in Industrial, Residential, Rural and Other area	Concentration in Ambient Air in Ecologically Sensitive Area	Method of Measurement
1	Sulphur Dioxide (SO_2)	Annual 24 hours	50 80	20 80	-Improved West & Gaeke -Ultraviolet Fluorescence
2	Nitrogen Dioxide (NO_2)	Annual 24 hours	40 80	30 80	-Chemiluminescence
3	Particulate Matter (PM_{10})	Annual 24 hours	60 100	60 100	-Gravimetric -TOEM -Beta attenuation
4	Particulate Matter ($\text{PM}_{2.5}$)	Annual 24 hours	40 60	40 60	-Gravimetric -TOEM -Beta attenuation
5	Ozone (O_3)	8 hours 1 hours	100 180	100 180	-UV photometric -Chemiluminescence -Chemical Method
6	Lead (Pb)	Annual 24 hours	0.50 1.00	0.50 1.00	-ED-XRF using Teflon Filter
7	Carbon Monoxide (CO)	8 hours 1 hours	2 4	2 4	-Non Dispersive infrared (NDIR) spectroscopy
8	Ammonia (NH_3)	Annual 24 hours	100 400	100 400	-Chemiluminescence
9	Benzene (C_6H_6)	Annual	5	5	-Gas chromatography based continuous analyzer
10	Benzo Pyrene (BaP) - Particulate phase only	Annual	1	1	-Solvent extraction followed by HPL/GC analysis
11	Arsenic (As)	Annual	6	6	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni)	Annual	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

Source: Central Pollution Control Board, 2009

- 24 hourly or 8 hourly or 1 hourly monitored values, as applicable, shall be complied with 98% of time in a year. 2% of time, they have exceeded the limits but not on two consecutive days of monitoring.
- Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform interval.
- Ecologically sensitive area: is a type of designation for an agricultural area which needs special protection because of its landscape, wildlife or historical value.

More than 1 Crore registered vehicles are being operated in New Delhi. As per the Supreme Court direction, Government of Delhi should act immediately to take vehicles off the roads, if they are more than 10 years old for diesel-run vehicles and 15 years old for petrol-run vehicles. Important government offices may be shifted to some other states. Instead of keeping all central government offices in NCR, some of them must be shifted to other states.

Mitigating air pollution

Some key steps needed to mitigate air pollution can be listed, like -

- The 'Clean Air Campaign', air filtering buses i.e. Pariyayatra (the filters can trap up to 98% of the particulate matter) should be adopted in all the metropolitan cities.
- The manufacturing and import of traditional crackers should be banned within the country, only eco-friendly crackers should be allowed.
- Impose heavy penalty on industries not adhering to emission standards.
- Create awareness among villagers about the ill effects of the pollutants and the activities leading to air pollution.
- People in metropolitan cities are, in general, insensitive to the alarming situation of air pollution and need to be penalized heavily, if found violating the law.
- Use of CNG needs to be promoted in Tier 1 and Tier 2 for smaller cities and villages. Govt. should increase the subsidy on installing solar panels and use of other renewable sources.
- Use energy efficient devices - LED and CFL light consumes less electricity and also help to reduce air pollution by consuming less energy.
- Reduce, reuse and recycle - everyone must understand this concept of reducing, reuse and recycle to save energy and reduce pollution.
- Use public transport - Try to use public transport services to reduce pollution in the air. This will help to save your money and reduce the chances of more air pollution.
- Conserve energy - switch off the lights and fans when not in use. This will help to save electricity which requires a lot of burning fossil fuels.

The Delhi government is planning to install air purifiers, mist fountains as a pilot project to curb air pollution. Ban on sale and usage of pet-coke and furnace oil in 4 states of region. From 1 July 2018, only zigzag-technology compliant brick kilns will be allowed to operate in NCR Delhi. Decision to permanently close Badarpur power plant in July 2018 is a step in right direction.

Government strategies are the initial step but still long miles to go, again comes the point of implementation. Yes, the strategies should be extended to the smaller cities also. Some of the examples where stringent measures should be taken are like the government should take steps to stop thermal power plants and should

implement solar power, so that coal burning and coal mining could be stopped resulting which, carbon monoxide emission and particulate matter can be arrested.

In this regard, India shall take a leaf from China which has taken a conscious decision to bear a significant economic cost to reduce air pollution which included shuttering steel mills, thermal power plants, relocating polluting industries out of cities, creating infrastructure for cycle bikes, keeping vehicles out of certain designated zones in the cities, etc.

References

1. World Health Organization (2018). 9 out of 10 people worldwide breathe polluted air but more countries are taking action. Press Release. WHO, Geneva, 2 May 2018
2. TNN (2017). Top 8 main causes for air pollution in Delhi. E Times, Times of India, New Delhi. 15 November 2017

Celebrating Diwali and Consequences

Air Quality – The impact of Diwali?

Mohit Gupta

The Air quality in the country is fast deteriorating. The air quality in the National Capital Region has deteriorated to such a level that the area has been referred to as a “Gas Chamber”.

Poor air quality across the country prompted the Supreme Court of India to come up with immediate measures to curb rising air pollution due to bursting of crackers. The Supreme Court of India on 31 October 2018, ordered restrictions from partially banning fireworks to setting the time limit on bursting of crackers in the NCR region. The court allowed bursting of crackers only between 8 PM to 10 PM and restricted bursting of conventional firecrackers and allowed only ‘green firecrackers’ to be used on Diwali which are being developed by the National Environmental Engineering Research Institute (NEERI) of the Council of Scientific and Industrial Research (CSIR).

The questions arise

1. Whether bursting of crackers have any effect on the Air Quality and
2. Whether the restrictions put in by the Court effective.



Image 1- Image Credit - ANI

The answer to the second question is an emphatic ‘No’. Although, the citizens were aware of the rising pollution in the NCR region, the festival of Diwali saw large amount of bursting of crackers and violation of the time limit as set by the court. Availability of so-called “Green Crackers” was a mystery for the manufacturers themselves and with only a small window since the order, it can be safely said that almost NONE of the all crackers burst were “Green Crackers”. Personally, the amount of crackers burst was much less than last year. The morning after saw a haze over the entire city with AQI levels above 400 in almost all locations.

The answer to the first question is slightly difficult to answer. “Yes” there is an immediate impact of crackers on the Air Quality. However, how much impact and for how long can only be answered by regular monitoring and identification of other sources of pollution.

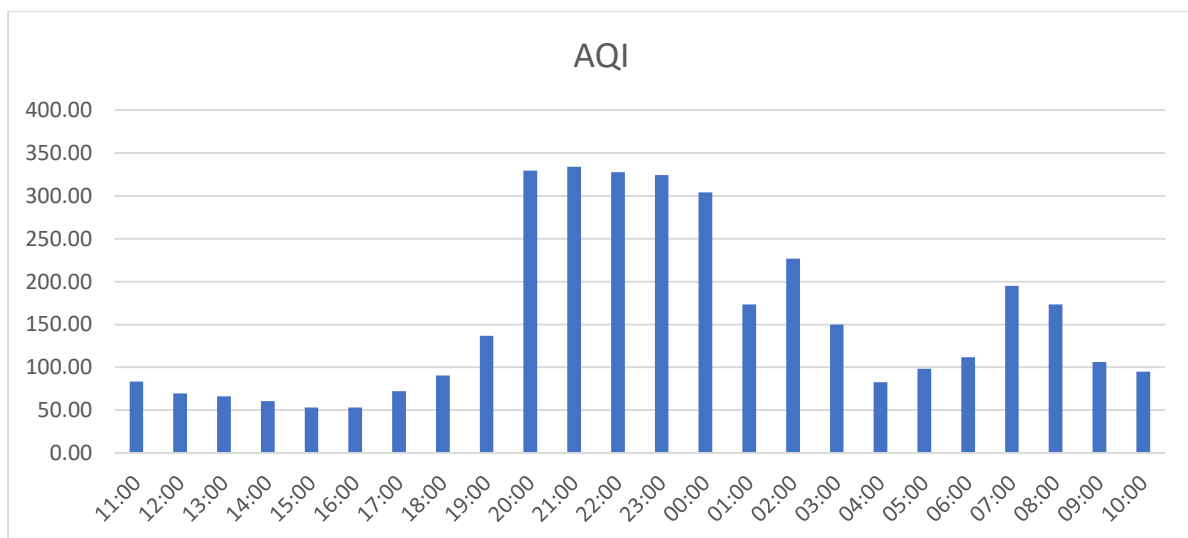
The Low Cost air monitors which have been placed in several cities by Environics Trust recorded the air quality on the day of Diwali. Below are some graphs which will help in answering the first question.



The Air Monitoring Device (left) and showing interior (Right)

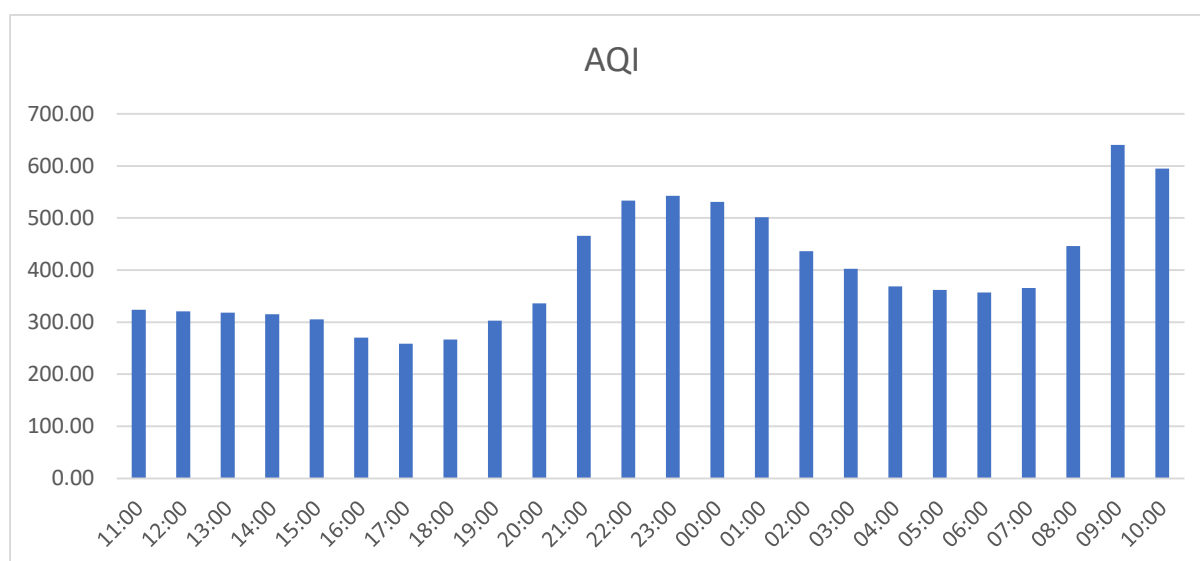
Note – All data is considered for an hourly interval starting from 11 AM on 7 November till 10 AM on 8th November (24-hour period)

Monitor 1 – Location Neb Sarai, New Delhi



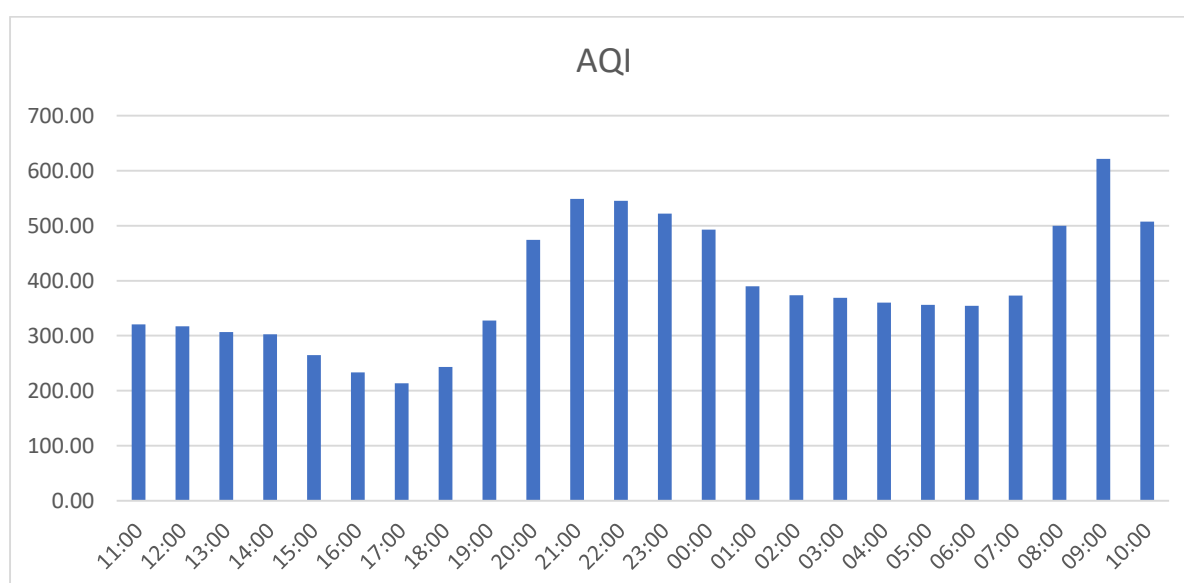
The monitor is placed outdoors. The AQI numbers can be seen to be rising 7PM onwards and reaches a high of 335 at 9 PM. The values remain high till about 2 PM and then start going down.

Monitor 2 – Neb Sarai, New Delhi



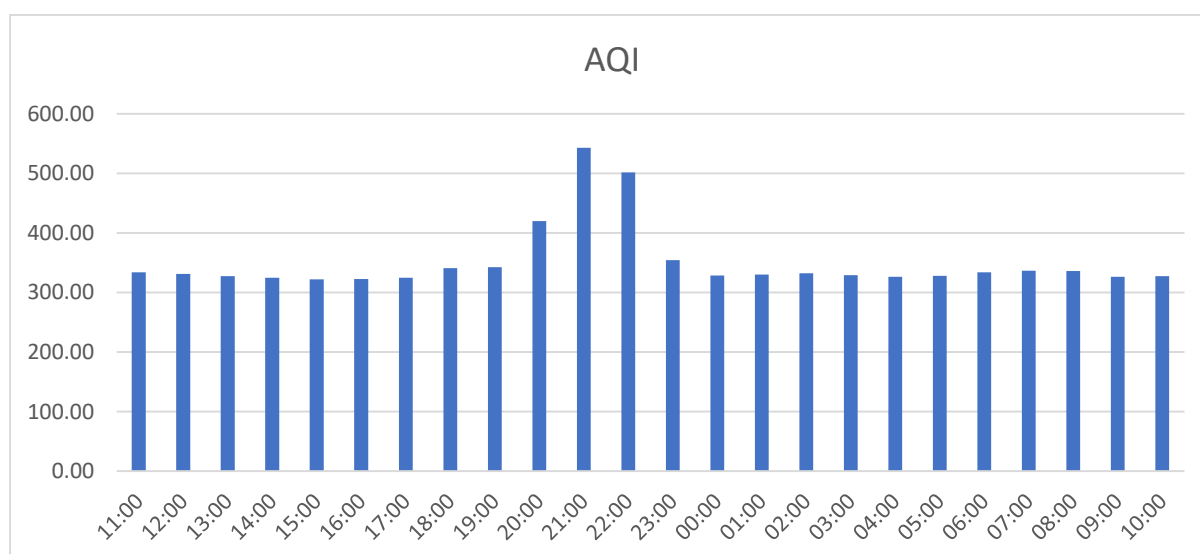
The monitor is placed Indoors. Again, the AQI numbers can be seen to be rising 7PM onwards and reaches a high of 543 at 11 PM. The values remain high till about 1 PM and then decreases.

Monitor 3 – Freedom Fighters Colony, New Delhi



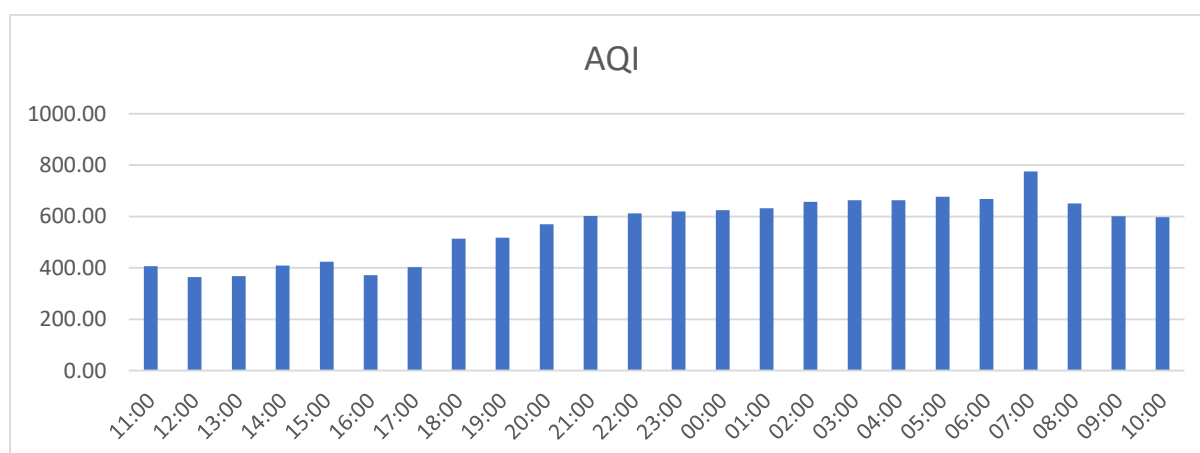
The monitor is placed Indoors. Again, the AQI numbers can be seen to be rising 7PM onwards and reaches a high of 549 at 9 PM. The values remain high till about 1 PM and then decreases.

Monitor 4 – Ravi Shankar Shukla Nagar, Korba



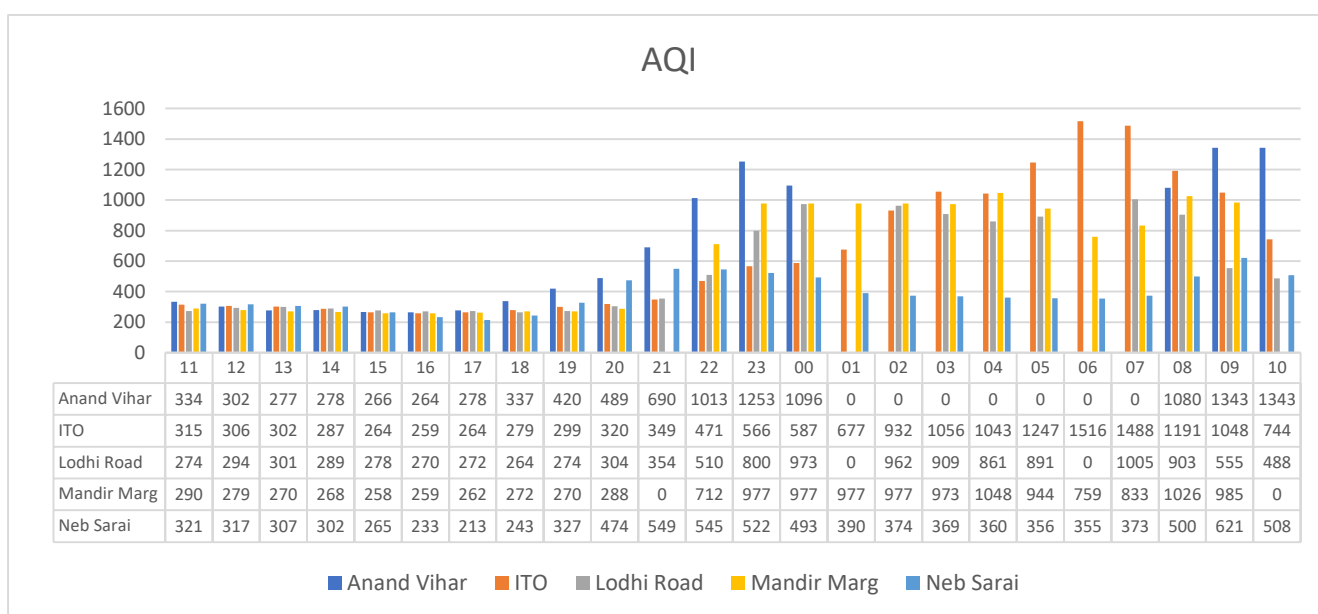
The monitor is placed outdoors. Again, the AQI numbers can be seen to be rising 7PM onwards and reaches a high of 543 at 9 PM. The values remain high till about midnight and then start going down to a regular value around 300.

Monitor 5 – Tatiyaganj, Uttar Pradesh



The monitor is placed outdoors. Again, the AQI numbers can be seen to be rising 6 PM onwards. The maximum value of 775 is recorded on 8 Nov at 7 AM. The AQI remains high through the entire period after 6PM on 7 Nov.

CPCB Monitors Data



Data from four (4) Air monitors installed by Central Pollution Control Board in the Delhi region at Anand Vihar, ITO, Lodhi Road and Siri Fort point to the increase in the air pollution around 7 PM on Diwali day. The air quality index reaches a high of 1516 at ITO at 6 Am on the morning of the 8th.

Further looking at the data, the Air Quality recorded at Neb Sarai seem to be better than that at other locations although even this quality falls in the Severe level.

It can be seen from the graphs above that bursting of crackers definitely have an immediate impact on the air quality especially for the residents nearby. Not only Delhi, but other cities also recorded a rise in AQI values on Diwali day. However, the severity and timeline of this impact is dependent of several factors like the number of crackers, their composition, wind factors and remains a subject of further studies.

Evolution of Map Creation

Through Maps: The Art of Map Creation (2)

Aman Pathak

In the preceding write up, the origin of cartography (the process of map making) and its importance in medieval times was covered. How and why maps originated and how the spread and reach of man diversified the usage, application, and productivity of the medieval maps was under discussion, too.

The manual mapping techniques were employed for the longest period of cartography and they were relatively accurate and certain about the earthly features. There were survey teams and cartographers that drew maps by hands and used navigational devises such as the early compass and the position of the stars.



Figure 1: A form Schneider (one who carves woodcuts) at work in front of a window. In those days, there was no satisfactory substitute for daylight. On Left



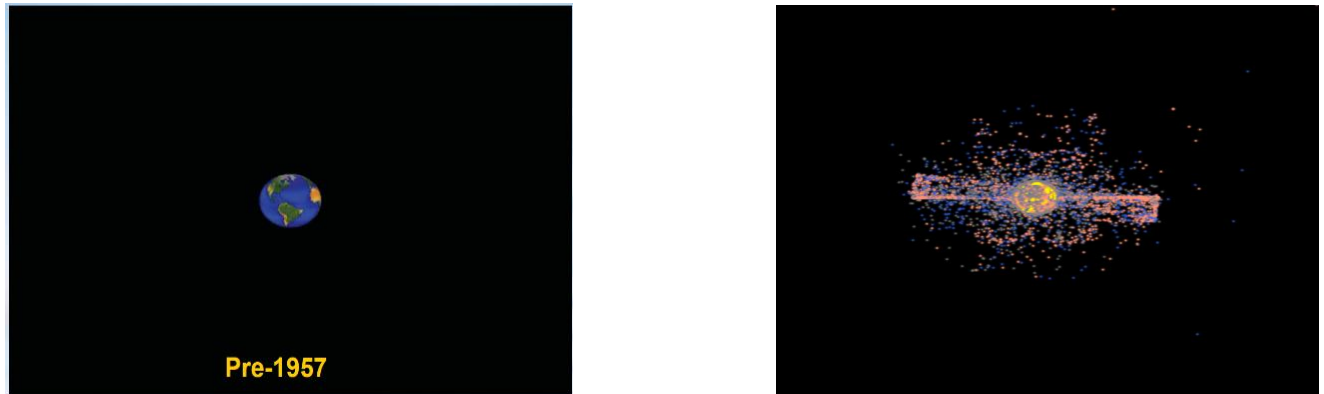
Figure 2: The machine printing (machine power augmented and magnified human muscle power. The result was a major increase in the speed and efficiency of the mapping process, with a commensurate reduction in mapping cost). On Right

“Printing done with copper plate engravings was a tougher work.”

In this write up, focus is on modern maps and their application in addressing contemporary global problems. These maps can help predict, quantify, access, and project, specific issues and their potential solutions. The modern technology relies on digital maps, which utilize software dealing with spatial data (data that represents a space). The spatial data is a common terminology, which is helpful to represent space in many disciplines of science such as engineering, architecture, etc. However, in the case of maps, we would choose the space which better represents the location of the object i.e. ground information. We represent the object location on a digital model of Earth hence it is termed as geospatial location. The software, which processes this geospatial information, called as GIS (Geographic Informatics Systems).

Fig 3

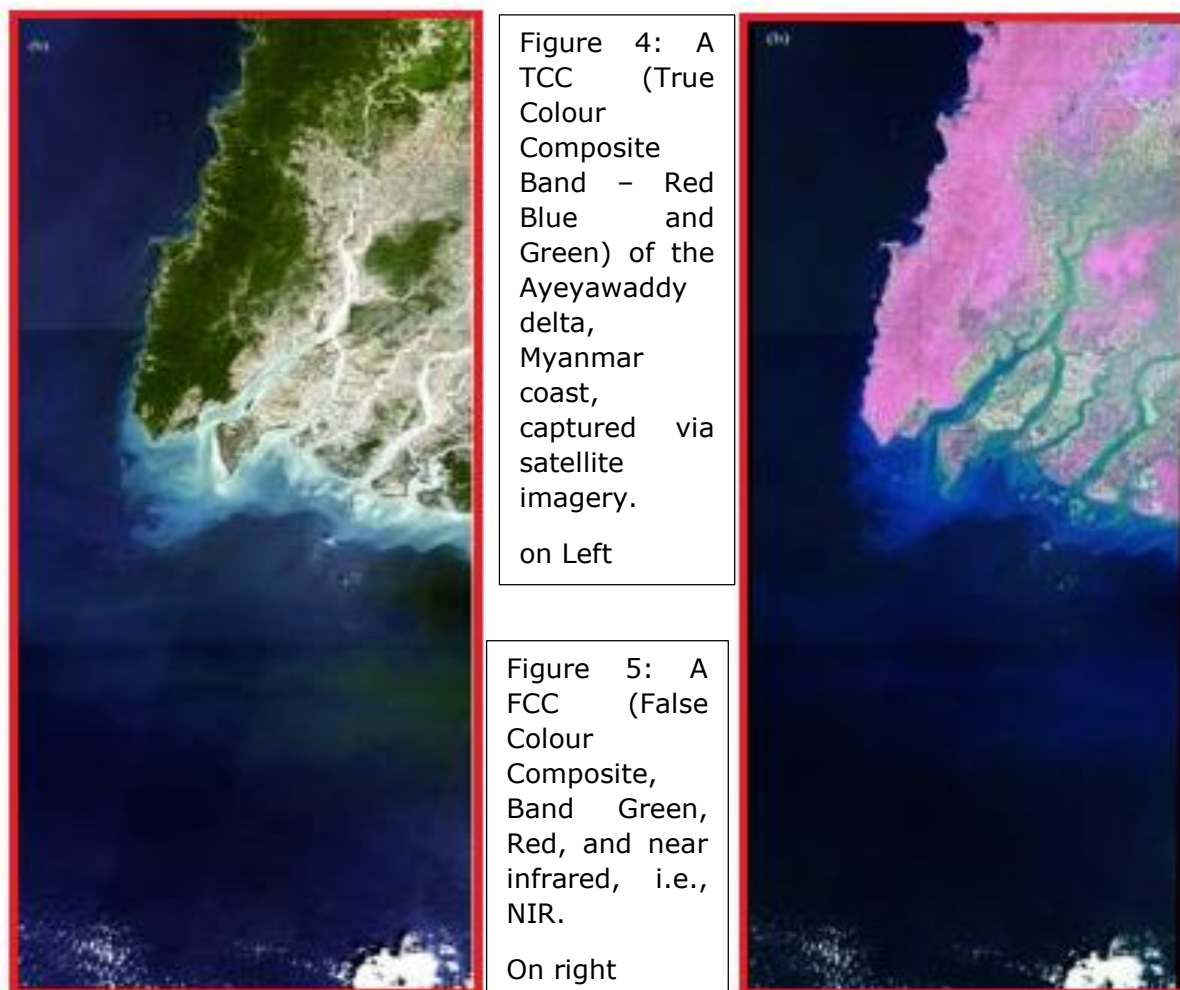
Representative distribution of satellites around earth over time (Pre-1957 & 2018)



Source: Reference No. 3

Geography (the study of the physical features of the earth and its atmosphere, and of human activity as it affects and is affected by these, including the distribution of populations and resources as well as political and economic activities) is an academic discipline, which influences GIS at the root levels. The information about the processes on earth and the general chemical and physical properties of earthly matters is an important key to better GIS practices. With advances in science and technology, cartography depended on light and other sensors, which would capture and project the earthly data to the systems to be processed. GIS majorly utilizes satellite imagery in the modern times, captured by the light sensors. These sensors are adjusted to capture light in specific windows (wavelengths). The data captured in these wavelengths is useful to differentiate ground objects depending upon their chemical composition and behavior with light. To give you an example, more solid objects such as roads and urban settlements tend to reflect more light back to the sensor appearing brighter in satellite imagery whereas, water absorbs most of the light falling on it making it appear darker in the satellite imagery.

We use light sensors to capture vital information of earthly features as light is the only energy that propagates in space. The satellite present above earth's atmosphere depending upon the height, the orbit and whether it is a geostationary (fixed position over a specific location, moving with earth, approximately at 35,000 km) or a medium-Earth orbit (20,000 km) and the sensor specification, the 'swath' (Area of capture) is generally larger which captures more information in a single imagery. The resolution of the image (the ability of an image to differentiate the distance between two objects) makes the image more interpretable and more accurately to decode. This ability to observe earthly features from a specialized sensor saves us money, time and provides a general direction to proceed.



Source: Reference no. 1, for both

These satellites include military and civilian Earth observation satellites, navigation satellites, communications satellite, weather satellites, space telescopes, space stations and spacecraft's in orbit are satellites.

Modern sensors are crucial tools in development of maps and map-making process (cartography) utilized for diverse purposes such as Earth Observation, GPS technology which utilizes sensors to capture location on earth surface from other satellites. In the following images the utilization of various sensor bands (window of wavelength) to see sediment flow in the delta region. The TCC (True Color Composite) is the color we see and perceive our environment and the FCC (False Color Composite) is a combination of specific bands with individual wavelength classes. As seen above in the FCC it is easier to differentiate and observe water bodies and general area with moisture (Light Pink region).

These applications are utilized to observe and calculate the earth features. We at ET (Environics Trust) are working with satellite data to capture land features and focus around our area of interests (AOI). We utilize the satellite image data to generate river basins, observing the changes in land-use features over time, to see changes along river coasts and potential changes from upcoming proposed projects. We see impact of urban settlements, the pattern of resource spread, changes in and around areas of critical status such as national parks, tribal

villages and potentially environment, impact sites, i.e., power plants, mineral mines, coal deposits, shoreline changes, etc. We generate maps from secondary data available with government or private sources and try to align the patterns in these data to plan our primary research objectives to observe changes and their probable causes.

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NGT judgement on Asbestos Shall be mandatory to implement

Pooja Gupta

Introduction

Occupational Health and workers right are the collective indicator of a country's development. A country with more than 81% informal sector workers, needs to fight hard to meet the terms and conditions while complying the norms. The working condition requires high standards and the regulations should be demanding, then only, those into business will treat the workers with respect and sincerity.

Under the United nation's sustainable development goals, **Goal 3.9** refers that by 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination, while **Goal 8.8** talks about protecting labour rights and promote safe and secure working environments of all workers, including migrant workers, particularly women migrants, and those in precarious employment. In **Goal 16.6** which discusses to develop effective, accountable and transparent institutions at all levels are bench marks that each committed country needs to follow. If India needs to achieve these goals it should start addressing its issue and make various arrangements that are practical and can be implemented for the benefits of underprivileged.

One such much needed amendment in the law would be addressing the issue of the usage of asbestos in the country. The working environment **Permissible Exposure Limit** (PEL) for asbestos is **0.1 fibre per cubic centimetre of air as an eight-hour** time-weighted average (TWA), with an excursion limit (EL) of 1.0 asbestos fibres per cubic centimetre over a 30-minute period. The employer must ensure that no one is exposed above these limits.

But a lot of mining activity which were going on in 1980s which already have exposed a huge amount of population residing in the nearby by areas as the safety measures back then were not rigorous. These mines were abandoned long back after the government banned mining in the country but these mines were never scientifically closed and are still vulnerable to erosion, contaminating the areas as far as the wind/ water blows.

The Context

The Mines Department, Government of India, in the interest of health of workers, in 1986 restricted the expansion of existing mines, and imposed further restrictions on the mining of asbestos in 1993. However, the closure and reclamation of these abandoned mines has not been done scientifically yet.

According to the Indian Minerals Yearbook published by Indian Bureau of Mines under Ministry of Mining in October 2012, the production of asbestos stood at 258 tonnes in 2010-11 and increased by about 6 per cent as compared to previous year's record production. Andhra Pradesh and Rajasthan were major contributors.

Various unregulated mining practices across the country were identified and a case was filed in 2012 by Environics Trust with the Hon'ble National Green tribunal seeking directions for scientific restitution of the abandoned mining lease for asbestos.

The Judgement of NGT

On 14th August 2018, the principal bench of National Green Tribunal, chaired by Hon'ble Mr Justice Adarsh Kumar Goel asked four states (the respondents) — Andhra Pradesh, Rajasthan, Jharkhand and Karnataka in the following cases - *Shri Kalyan Ban Singh & Ors. vs. HIL Ltd. & Ors.*; *Envionics Trust vs. Union of India & Ors.*; and *Amar Singh vs. Union of India & Ors.* — to comply with the [judgement](#) dealing with asbestos contamination.

The National Green Tribunal (NGT) directed the governments of Jharkhand, Rajasthan, Karnataka and Andhra Pradesh to scientifically close all abandoned asbestos mines falling within their provinces. Prior to the final judgement, on 29.10.2015, the tribunal contemplated the issue of closing of the asbestos mines in a scientific manner and directed the four states to prepare a list of all abandoned asbestos mines and furnish such list to the Indian Bureau of Mines. The said States were directed to formulate a programme of inspection of each mine, which was reproduced in the final order too.



Abandoned Asbestos Mines fenced only with tweaks in Rajsathan

In the order, Justice Goel has asked the Ministry of Environment, Forests and Climate Change (MoEFCC) to collect data from the respective mining departments and state pollution control boards regarding all the mines operating in these states, whether mines which were operational have ceased to operate and the measures taken to reclaim closed mines. The tribunal also asked for health survey along with the analysis of ambient air and water quality around these mining

areas. Further, the bench has also asked the states to list the number of industries processing asbestos in these states. The bench has aforesaid that, it is undisputable that asbestos mining activity is hazardous and causes serious environmental and health hazards, including diseases such as cancer.

Specific Recommendations for Jharkhand

- (1) Adoption of suitable schemes for not disturbing the streams/river flowing nearby area.
- (2) Notifying the local people about the restrictions and precautions against exposure to Hazardous Asbestos dust through display board. The display board should be provided near the dump area showing the hazards associated with asbestos in local/ Hindi language with danger sign so that no person goes inadvertently to the dump site.
- (3) The dump site should be properly fenced with barbed wire.
- (4) Retaining wall should be made all along the foothill of the dump to prevent run off in the adjoining area.
- (5) Coir matting may be put over to the dump area and considerable amount of soil may be spread over it. Seeds of plant of local species/shrubs/grass may be sprayed over it for its stabilization.
- (6) A series of Check Dams of suitable strength may be constructed in the downstream of the seasonal nallah from the foothill of the dump upto the road about 500 meter to contain/arrest the flow of asbestos mixed waste material.
- (7) Massive plantation around the dump area as well as at the foot hill should be done to arrest air borne dust moving away from the dump site. The revegetation strategy should be use plants which are native to the area and the site should eventually return to the forest common to the region.
- (8) Grasses and legumes facilitate phytoremediation of metalliferous soils. Phytoremediation relies on suitable plants with metal scavenging properties, Grass legume cover namely *Cynodon dactylon*, *Sorghastrum nutans* and *Acacia concinna* and *Cajanus cajan* may be planted along the waste dump and agricultural land as a barrier.
- (9) Regular medical surveillance of the local community may be provided involving physical examination that includes a chest roentgenogram and pulmonary functions tests for early detection of lung cancer and impaired lung function.
- (10) A general hydro-seeding of the Asbestos mixed dump area may be undertaken operating remotely from a helicopter as a slope is very steep.
- (11) Since the Roro hill falls under the Protected Forest, hence restoration should be carried out under the supervision of Forest Department Govt. of Jharkhand.

At some places, even after shutting down all the operations in all areas where the asbestos were mined the scientific closure of such mines is yet to be done. The lack of concern by the state in this regard is poignant and no efficient measures have been taken place to ensure the safety of the communities residing in the nearby areas.

The State of Rajasthan filed an affidavits on 24.02.2015 stating that the mines have been closed and rules have been complied. **But at in the recent visit earlier in 2018, presented a different scenarios. Many sites were identified at various places where the mines were abandoned without out any scientific closure.** At some places the barbed wire were the only safety measures taken by the government/ project proponent. Children were seen playing in and around those abandoned mines, some were even seen playing with the raw fibre. The latent period of asbestos to show effect is 10-15 years, and as per an article published on BBC, it is said that the children are at greater risk as compared to adults in case of asbestos contamination. As it is known that asbestosis takes greater time period to develop hence kids are likely to suffer by the time they are young adults. Hence it can be said that a five-year-old is five times more likely than an adult of 30 to develop mesothelioma, a type of cancer linked to asbestos, if they are exposed to it at the same time.

Necessity for Implementation of the Judgement

The scientific closure is particularly needed as the fibre are prone to air dispersal and can contaminate human lungs once in contact. So, we seek your assistance as per the judgement passed by the Hon'ble court to comply by the required measures needed for the scientific closure of the mines and identification of the victims. As Rajasthan has already set a bench mark with state pneumoconiosis board, we are looking forward for a concrete and appropriate action plan for scientific restitution of the mine sites and surrounding areas. The order passed by the chair has to be implemented and the concerned authorities has to take the responsibility to do the needful.

Social Audit in Delhi

Social Audit

Sunil Hembram



Public hearings at Haiderpur, Delhi, as a part of Social audit

The social audit can be explained as the process of monitoring and evaluation of the government initiatives or schemes for the society to examine the quality of work done on the ground. The communities have rights to get involved in the audit process in order to verify the quality of works done and to keep a track if benefits have reached to the beneficiaries or not.

A transparency in the entire process needs to be brought and hence a way out needs to be secured for vulnerable communities, when extractive industries affect the communities due to their exploiting nature. As per World Bank, about 3.5 billion people live in countries rich in oil, gas or minerals. With good governance and transparent management, the revenues from extractive industries can have an impact on reducing poverty and boosting shared prosperity, while respecting community needs and the environment. The industries such as captive power plant, aluminum plant, sponge iron plant and mining, produce enormous pollution apart from generating huge revenues. The social audit can be used as a tool in case the industries or mining companies are violating the norms.

Concerned about the safety, occupational health and welfare measures of workers in the unorganized sector, the National Campaign Committee for Central Legislation on Construction Labor (NCC-CL), a non-registered committee, appealed against the non-implementation of the Building and Other Construction Workers Act 1996 in an ongoing PIL (WP civil NO. 318 of 2006).

It may be relevant here to recall that for the safety, welfare and justice of workers, the parliament enacted two laws - Building and Other Construction Workers Act

1996 (the BOCW Act) and Building and Other Construction Workers Welfare Cess Act, 1996 (The CESS Act).

Building and Other Construction Workers, Act 1996

This Act is primarily aimed to provide better working conditions for the workers involved in building and other construction works. The Act stipulates to provide safety, health and welfare measures and for other matters connected therewith or incidental thereto. It is an effort to address the condition of workers during and after the works. It is enacted to provide social and economic justice.

The Building and Other Construction Workers' Workers Cess Act, 1996

The Welfare Board of building and construction workers is collecting Cess on the construction cost from employer under this Act of 1996 and the fund is utilized for the welfare of laborers.

On 19 March 2018, Hon'ble Supreme Court delivered a judgment directed the Ministry of Labor and Employment department to constitute a sub-committee to conduct social audit of the BOCW welfare board. The sub-committee conducted a meeting on 8th August, 2018 in the office of Director General Labor Welfare (DGLB). In this meeting, a framework on the guidelines for conducting audits was prepared. The final draft has to be prepared by Comptroller and Audit General (CAG) with the reference of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).

The building and construction activities, considered as unorganized sector, engages largest numbers of workers which may include even children. Since many decades, the workers have been deprived of social and economic benefits, as enshrined in the related enactments. Neither Central Government nor the Union Territory Administration has effectively implemented acts.

The sub-committee as directed by the apex court in its judgment, was constituted in Delhi for conducting social audits. Thus, NCC-CL in collaboration with other civil society organizations was assigned to conduct social audits in Delhi, as a pilot, so that the complete process of conducting social audit can be implemented in a more practical manner across various states.

स्थानीय पारिस्थितिकी

वन्यजीवों और आजीविका की पहल

बच्ची सिंह बिष्ट

पाटा नैनीताल जिले के रामगढ़ ब्लॉक का एक गांव है जिसके मूल ग्राम पंचायत सतबूंगा है। सतबूंगा ग्राम सभा में पाटा, सकार, लोधिया और कापुवा गांव आते हैं। यह रामगंगा बेसिन (या बड़े जलागम) का क्षेत्र है जो शारदा जलागम से लगा हुआ है और यहाँ की भौगोलिक-पर्यावरणीय-परिस्थितिकी लगभग मिलती जुलती है। सतबूंगा का अर्थ है सात पवित्र चोटियों वाला उपजाऊ भू-भाग। सतबूंगा ग्राम सभा की वन पंचायत नैनीताल जिले की सबसे बड़ी वन पंचायत है। 850 हेक्टेयर का भू-भाग यहां के लोगों/निवासियों की पुश्तैनी विरासत है और यहां के लोगों की ईंधन, चारा, कृषि यंत्र, पशुओं के लिए बिछावन की जरूरतों को पूरा करती है। वर्तमान में इस के सरपंच श्री गंगा सिंह हैं जो पाटा में रहते हैं। यहाँ फल और सब्जी उत्पादक क्षेत्र है यहां से सेब, आड़ू, पुलम, नाशपाती के अलावा मटर, गोभी, आलू, बीन्स की फसल होती है।

पाटा के साथ ही गल्ला ग्राम पंचायत है जिसके पास 150 हेक्टेयर की वन पंचायत है, गल्ला छोटी ग्राम सभा है और पाटा सतबूंगा से इसके खेत तथा जंगल की सीमाएं मिली हुई हैं। गल्ला फल, सब्जी उत्पादक गांव है। इस क्षेत्र की तीसरी छोटी ग्राम पंचायत लोद है, जो वन पंचायत विहीन है। यहां के निवासी गल्ला और पाटा के जंगलों पर अधिक निर्भर रहते हैं। इस क्षेत्र का सबसे बड़ा गांव सूपी है जहां 350 हेक्टेयर वन पंचायत है। जिसकी कुछ सीमा सतबूंगा से मिलती है। सूपी रामगढ़ ब्लॉक की सबसे बड़ी ग्राम सभा है। यहां 10 से अधिक गांव-तोक, इंटर कॉलेज, चार प्राथमिक विद्यालय और छह आंगनवाड़ी है। 2 क्षेत्र पंचायत सदस्य चुने गए हैं। सूपी अनाज, फल, सब्जी का बड़ा उत्पादक गांव है। सूपी के पास आरक्षित वन क्षेत्र का बड़ा भू-भाग है। इन सभी जंगलों में बांज, बुरांश, काफल, खरसू समेत, चौड़ी पत्ती वाले पेड़ हैं। इसके अलावा इन जंगलों में बेशकीमती जड़ी बूटियां पाई जाती हैं।

चीड़ के जंगल बढ़ रहे हैं और सालाना अधिकतर इन्हीं वनों में आग लगती है। अधिक चीड़ के जंगल होने से जैव-विविधता न के बराबर होती जा रही है। इन जंगलों में वन्य-प्राणियों, पक्षियों, कीट, मृगों के रहने खाने और प्रजनन करने के लिए वनस्पति आवरण खत्म हो चुका है। साथ ही खुले जंगल वन्य प्राणियों के सुरक्षित पनाहगाह नहीं हैं।

इन तमाम कारकों के चलते वन्यजीव सघन वनों तथा मानव बस्तियों में भोजन व पेयजल के लिए आने लगे हैं फिर वहीं पर अपनी निर्भरता बना लेते हैं। सघन वनों, नदी तटों तथा सुरक्षित पनाहगाहों में मानव हस्तक्षेप अत्यधिक बढ़ा है। सड़कों, नई बसावटों ने वन्य जीवों को अत्यधिक असुरक्षित बना दिया है। इसके चलते उत्तराखंड में मानव-वन्यजीव संघर्ष तीव्र हो गया है। सरकारी संरक्षण की नीतियों

ने वन्य प्राणियों के लिए कई सुरक्षित स्थान तैयार किए हैं परंतु वन्य प्राणियों के भोजन, जल, प्रजनन और प्रवास की व्यवस्थाएं करने में आयोजन निष्फल साबित हो चुके हैं।

उनकी खेती को बंदर, सूअर, साही बर्बाद कर रहे हैं। सीमित आबादी में बाघ का आतंक रहने लगा है, जिसके कारण पलायन को और बढ़ावा मिला है। उत्तराखंड की अधिकांश वन भूमि विभाग के पास है। खासतौर पर उत्तराखंड के खेतों की जोतें बिखरी, असिंचित और खाने कमाने के लिए पर्याप्त नहीं है, इसलिए सदियों से लोग पलायन कर रहे हैं लेकिन यह पलायन पुरुषों द्वारा सीमित समय के लिए होता है। गांव में महिलाओं बच्चों के साथ रहती हैं क्योंकि दूध अनाज फल-सब्जियों का स्वयं उत्पादन कर लेती हैं।

पलायन पूरे परिवार के साथ पूरी तरह से इन 17 वर्षों में अधिक हुआ है। इसके पीछे एक बड़ा कारण वन्य प्राणियों द्वारा लोगों की फसलों को पूरी तरह खत्म कर देना रहा है। लोगों, जनसंगठनों, जिम्मेदार लोगों ने इस समस्या को सरकार के हर एक स्तर पर सुलझाने का आग्रह किया। सरकार और उसके विभाग अपनी मौलिक सोच की कमी, रुढ़िगत निर्णय लेने के तरीके तथा वैश्विक व्यापारिक दृष्टिकोण की साजिश के चलते ऐसे कोई उपाय नहीं खोज पाए जिससे वन्य प्राणियों के द्वारा खेती किसानों को हो रहे नुकसान को कम किया जा सकता था।

पलायन अनाज उत्पादक गांवों से अधिक हुआ है। ये कार्य धन से नहीं मन से ही किया जा सकता है। पूरे हिमालय का अपना परितंत्र अभी खतरे में पड़ गया है। उसके साथ ही मूल निवासियों, मूल जंगलों और मूल जल स्रोतों पर भी हमला हुआ है। इसे समझना ज़रूरी है। ये भी कि जंगल लगाने से अधिक बचाने से अपने को पनपा सकते हैं। जंगल नदी का मायका है। किसी महिला को पसंद नहीं है कि दिन-रात जंगलों में जाकर लकड़ी घास चारा काटना पड़े। ये पारिवारिक मजबूरी है। अब उत्तराखंड के मूल निवासियों को थोड़ा अपनी पहचान और अस्मिता को लेकर अधिक समझदार और जागरूक होने की ज़रूरत है। हिमालय फिर से सूखे की चपेट में आ गया है। अब हरेक नदी में पानी घटने लगा है। हमारे फल पट्टी के किसान बागवान मटर की खेती भी करते हैं। मटर भी इतनी महंगी है कि यदि समय पर पानी नहीं मिला तो लागत वसूली भी मुश्किल हो जाएगी। समझदार बागवानों ने अपने लिए जल संचय टैंक बना लिए हैं। जिनके पास टैंक हैं, उनको कोई खास परेशानी नहीं हो रही है। कुछ ने तो 60 से 70 हजार लीटर पानी का संचय कर लिया है। जो लोग सरकारी कार्यक्रमों के भरोसे हैं या फिर अभी भी आलस से भरे हैं, उनकी हालत खराब होने वाली है। अब बरसात की ओर मुंह ताक कर रोने वाले लोगों के लिए मुसीबत लाज़मी है। मेहनतकश लोगों को कायर की तरह किसी के आने के इंतज़ार में देखना दुखद है। कोई बाहर से आकार हमारे लोगों के लिए आजीविका और बुनियादी संसाधनों की व्यवस्था नहीं कर सकता है। गाँव की धूल और मिट्टी से सने लोग धरती के असली नायक हैं। अपने पर विश्वास करके जब पानी जंगल खेती और जन के लिए सृजन होगा तो स्वाभिमान जगता है। आत्मविश्वास फल पट्टी के अलावा उस हरेक व्यक्ति को ज़रूरी है जो बरसों से राज और समाज की अवहेलना का शिकार हुए हैं। हिमालय का पानी, जंगल, ज़मीन, खेती हमारी है। यहाँ के लोग अपनी मेहनत से इसे सजा सकते हैं और बाँट सकते हैं। बहुत से ऐसे कार्य शेष हैं, जिनको किया जाना इसलिए ज़रूरी है ताकि पहाड़ में आबादी जीवित रह सके।

Report

Asia Tax and Women's Labour Campaign Planning Meeting

(28-30 November 2018, Hanoi)

Arun Kumar Singh

As is now customary, participants were given five minutes to talk to individual sitting next to one, and then each participant introduced each other. After this organizers welcomed participants and expressed their expectations from this meeting as follows –

- Learning - Gender and tax
- Sharing - Experiences with each other in one's country
- Planning - Strategy at national, regional and global level

Hoang Phuong Thao, Country Director ActionAid Vietnam gave an introductory address putting the meeting in perspective of the following –

- Tax and Non-tax barriers
- Vietnam is No 2 in Asia in terms of attracting investors consequently regulations have been weakened to attract investment.
- AAI is focusing on public services quality and accountability. Countries like Bangladesh and India have done a lot of work on this – others have not done as much.



Marcello from AAI said that AA is developing a new global campaign. This is a coordinated collective initiative – not just an ActionAid campaign. He started by giving an overview of “*Global Campaign on Women's Labour, Decent Work and Public Services*” He said that the work focused on paid and unpaid labour to women engaged in domestic, agriculture and social fields. He said the keys to achieve it are embedded in following three elements –

- Recognize, Reduce and Redistribute work load on women
- Right to work and to work
- Incorporate all women engaged as labour in formal and informal sector

He also mentioned that the campaign goals should be –

- Building collective power and voices
- Challenge neoliberalism
- Advocate for progressive policies/programs at all levels

Marcello further identified strategies which demand more concerted work by Campaign alliance and National Campaign Development Process –

- Gender based violence (GBV)
- Macroeconomic policies' impacts on women
- Extension of social protection at global and national levels
- Minimum living wages to address pay-disparity and pay-gap
- Women in public services and provision of care need special attention
- Adherence to human right conventions

He further elaborated on areas of international engagements, like –

- Commission for Status of Women 2019
- Agenda 2030 and SDGs
- ILO
- Human Rights Council and OHCHR
- IMF and World Bank

He further suggested a few important points for the campaign in 2019 -

- Launch Alliance and Joint Declaration
- Online and offline crowd-funding
- 2-pager on '*Why Campaign and Why Now*'
- Popular educational material – video, leaflet, pamphlet etc.
- Mobilization during key international moments and events in respective nations by participants through meetings, marches, etc.
- Petition signing initiatives
- Case studies and their result be popularized
- Postings in mainstream media and social media
- Launch campaign on 8 March 2019

Soren from AAI talked on "*Fiscal Spaces for Public Services.*" He began by mentioning AA's work on tax justice which began in 2003 by forming Tax Justice Network in UK which was also followed by Christian Aid in 2004-2005. Some of the major campaigns of AA were –

- Why SABMiller should stop dodging taxes in Africa (AA UK 20120)
- East Africa racing to bottom (AAI 2011-2013)

He said that results in these efforts led to initiate Tax Power Campaign in 2012-2013, with following tenets, describing–

- It works in 18 countries, major concentration in Africa
- Focus on corporate taxation
- Tax incentives and their impacts
- Tax treaties between rich and poor countries as a tool of exploitation (Mistreated 2016). For example, OECD, an association of 35 countries frames tax rules, which though are not binding in written words but almost mandatory to implement otherwise the bilateral and multilateral assistance to non-implementing nation will suddenly difficult to get.
- Issues related with global governance, accountability and transparency
- Size, Share, Sensitivity, Scrutiny
- Revenue sources for governments: aid, tax, fees and fines, royalties, investments/loan repayments, bond sales, inter-governmental payments, etc.

He talked about the progressive taxation tenets of which are - VAT, Excise Tax, Taxation of informal Sector, Trade Tax, Wealth Tax, Property Tax, Capital Gain Tax, Personal Income Tax and Corporate Income Tax.

Continuing with the fiscal spaces, he elaborated on the constraints of national budget and reasons behind it –

- Poor prioritization:
 - due to low level of citizens' participation,
 - military expenses,
 - debt-based expensive infrastructure,
 - ever-expanding governance structure
- Debt:
 - First priority payment (primary reason of crisis in Africa)
- Economic Orthodoxy:
 - Austerity curbing public spending
 - Privatization/liberalization
 - Low inflation/deficit
- WTO related issues
 - Privatization
 - Liberalization
- Recolonization
 - Earlier British, French, Spanish and Portuguese
 - Now it is primarily China (since last 20 years)
- Debt Crisis
 - Earlier it was through SAP by World Bank and IMF
 - Now it is more complex with China pushing nations in debt crisis
- In the end he stated that we should always keep on scrutinizing policies of some critical multilateral banks and international organizations like, IMF, WB, OECD, Main MNCs, TNCs, Finance Ministries development ministries, executive, African Union, European Union, other regional bodies, etc.

During the discussion, Sabri from Action Aid Bangladesh said from developing countries' point of view some other issues need to be added like, corruption, personification of issue, national goals and Law Makers' goals. He also referred to 'Fiscal Debt', an Action Aid report. He said IMF's 'conditionality' and 'devaluation of currency' aimed to limit spending and inflation control failed to achieve their objectives.

Arun K Singh from Environics Trust India spoke about SAP pursued religiously by WB and IMF. He said owing to mounting pressure from borrowing nations over SAP, World Bank was forced to appoint an in-house impact assessment team. It conducted detailed analysis in 105 countries implementing SAP. The findings revealed that in 95 countries results were negative, in 5 countries there was no change and in only 5 countries positive results were noted. However in the very next line, report specifically says that in these last 5 countries internal fiscal policies and financial regulations of each country was more responsible for the success of SAP, rather than WB and IMF policies. Arun K Singh raised the issue of privatization and pointed out that it is an integral part of WTO legislation and all 180 members must change their programs, policies and laws in congruence with WTO legislation otherwise face cross penalties and trade barriers from other

member-nations. He said that it was under this policy that city water supply in Berlin was privatized, in spite of running in profits and subsequently post-privatization it sank with heavy debt. He gave another example of South East Asian financial crisis in mid-late 1990s. IMF tried to stabilize economy of 5 countries by infusing more than US \$ 220 billion yet failed to tackle it, because the roots of this crisis were political and only political solution were needed to resolve it.

Joy Hermander, Global Alliance for Tax Justice, began by saying Asia is the global factory often called "continent of labor", "factory Asia", "informalization of labor", etc. she gave a snapshot of women at work

- women are more likely to be unemployed than men
- women are overrepresented as contributing family members
- women represent less than 40% of the total employment
- women spend more time on unpaid care work

Regarding the 'unpaid care work' she said -

- Unpaid work is important for paid economies to function
- 3 R: Recognize, Reduce and Redistribute care work
- SDG 2015 target "recognize and value unpaid care and domestic work through the provision of public services"
- Fiscal policies, role of state

Joy Hermander specifically stated that women's cheap and unpaid labour is providing huge subsidy to global economy.

She then covered the issue of paid employment -

- Gender differences exist in paid employment: women earn less than men, more women in informal employment
- Women are not likely to bear a large share of PIT but indirect tax impact women more than men
- Gender differences in household decision- making
- Gender differences in property rights and asset ownership
- Gender bias in tax systems:
 - Explicit gender bias (when tax systems explicitly treats women and men differently)
 - Implicit bias (when tax systems seems to be treating women and men equally, but actually have unequal impact)
 - VAT/GST imposed on goods mostly used by women
 - Personal tax on single-headed house hold adversely affects women
 - Tax collection at source too affects women more, as their income is more irregular

Joy also talked about reducing tax burdens on women -

- 3 R UCW: tax credits for UCW, provision of GRPS
- Reducing regressivity of taxation while ensuring substantive equality: VAT refunds for low-income groups; lower PIT for single-headed households

She concluded by emphasizing the need to make tax system gender-neutral.

Arun Kumar Singh, Environics Trust, India, began by saying WTO now decides the major economic choices for its 180 member-nations, impacting lives and livelihood of millions of traditionally-skilled workers. For example, introduction of synthetic

fiber in India, mandatory under WTO legislation, relegated thousands of handloom workers jobless overnight. He then discussed the introduction of GST, aimed at uniform tax structure throughout the country and how it has played its role affecting women workers adversely. The *Zari-Zardari* (a special kind of embroidery) work in which tens of hundreds women of Bareilly district (Uttar Pradesh, India) are engaged, have been stuck by thunderbolt of GST. Because under the GST regime, raw material required is taxed at 18% and then the finished product too is taxed at another 18%, thus it is no more cost-effective.

He continued to show how the well-intended women incentives become a threat to the women in India. In India, many states have introduced provision that any property – house, land, shop, etc. – if registered under wife's name then 10% to 20% rebate/concession will be given in registration tax/fee. However, in almost all cases the property papers continue to be in the possession of husband and cases have also come to light where wives have been found dead in mysteriously, as after her death husband become the rightful owner.

He also mentioned the case of sanitary napkins which are taxed at 18% under GST and this posed a grave threat to many self-help groups (SHGs) involved in sanitary napkin units at small level. Under the nation-wide anger and protest, the government reduced it to 8% but it does not solve the problem of SHGs, as they have to compete with the sanitary napkins manufactured by big companies – obviously it is an uneven playing field!

He further brought the issue of number of income-tax filers in India. It was 5.43 crore (54.3 millions) in 2016-17 which increased to nearly 6.84 crore (68.4 millions) in 2017-18. The numbers may look impressive but within the overall population of 1320 million/1.32 billion (most recent UN estimate as on 17 September 2018), it remain a very poor percentage. It is not officially known how many women are among the tax-paying category. He also discussed the conditions of women engaged as agricultural labour which are most vulnerable among women workers.

In the last, he pointed out the manner in which financial incentives to women are shown in the budget. For example, if in a particular year incentives of Rs. 630 Crore is given to women spread over various categories, then in the budget it will be placed under '*Revenue Forgone*'! It surely reflects gender bias in the budget.

Sabri from Action Aid Bangladesh presented the tax landscape of Bangladesh and covered ActionAid's tax works and its relevance -

- UCW: so far as standalone initiative, focus on behavior change of community and local level advocacy, need for Tax- women interface study



- Decent work: campaign for gender-friendly and safe workplace; campaign for labor-friendly budget, road show in spirit with 16 DOAs
- Policy conference on inclusiveness and GRPS: safe cities for women, inclusive and GRPS, governing PS, financing PS
- Citizen's Tax Tribunal: hearing one focus on implication of VAT on people; hearing to impact on corporate tax avoidance

Saroj from Action Aid Nepal talked about taxation in Nepal -

- Nepal levies a wide variety of taxes like: income tax, VAT, exercise duty, custom duty, and property related tax
- CIT: 30%, some special priority sector: 20%
- VAT rate: 13%
- Source of revenue
- Percentage of tax incentives by cluster
- Facts related to women's labor and decent work: minimum wage rate: NPR 13,450/month = 117 USD

Prakarsa, Indonesia presented an overview of situation in Indonesia -

Need assessment survey on decent work (youth and women):

- High school graduates have no relevant skills to find job
- Training does not guarantee job placement
- 2/3 employees are underpaid
- Employees have no bargaining power on wage
- 40.79% employees do not have a work contract

Job security: self-employee (informal worker)

- 50% of self-employees earn lower minimum wage

Tax Justice: Why increasing tax for rich matters?

- Identify and calculate how much loss for illicit financial flow

Central government is spending by function, which is progressive but insufficient.

Towards the end, the representative from Prakarsa said that we are also engaged on illicit financial flows and are working to carry research aimed at identifying which cooperation/s are involved in illicit financial flow and then publish it to make public pressure. Transparency and accountability issues needs to be addressed.

Action Aid Indonesia also made a presentation, highlights of which are given below in bullet points.

- AA Indonesia has not worked on tax issues
- Social spending good but not enough
- 2nd lowest tax ratio in Southeast Asia

However, he pointed out to the programs which are women-oriented, like -

- Ensure the decent toilet for girls
- Works with healthy cadre: monitor maternal and child health, do public education, increase involvement of fathers in child health centre
- Emergency response on earthquake in Palu: provide safe and secure space for women to meet and talk, provide psychosocial support for women, provide legal support and advice for GBV cases
- Case study research: advocacy process on Indonesian Migrant Workers Law

Strong legal framework

- Philippines second country in Asia to practice gender-responsive budgeting
- Second country that ratified convention on domestic workers
- Strong law on sexual harassment in the workplace

The realities are that despite the strong laws, the patriarchal culture is still strong. Discrimination still takes place. Women's labour force participation hovers around 25-30%. In the workplace, the glass ceiling is still there – even in the bureaucracy where there is strong employment of women. So even women in the formal economy, we see participation is not equal at all ranks. Women also have a disproportionate share in the informal economy. Women's share of land and property titles is less than 30%. Women's participation in decision making at state level hovers 22-31% and doesn't mean lawmaking structures are gender responsive.

Strong trend of women in vulnerable employment – feminization of migration and care work. Women's groups in Philippines are among those that have raised the issue of international division of labour where countries in the South are the providers of care all over the world.

Women's situation in Philippines was described in two sections – first covering the labour force and second in relation to tax issues and the highlights of both the sections are given below.

Factors to look at on women's labour force participation:

- High fertility rate – only recently adopted a reproductive health law.
- One of the highest rates of teen pregnancy, and fastest rates of HIV/AIDS, especially among youth
- Issue of access to essential and critical public services is very important
- GBV against women – 1 in 5 – higher in poorer areas and among Indigenous populations.
- Women spend 2.5 hours more than men on reproductive care work.

Tax issues in focus

- Tax/GDP ratio expected to raise to 60% this year. PIT is at 35% which is up, CIT is 30% (although there are many incentives so many pay less), VAT is 12% as is sales tax.
- New law TRAIN: Tax Reform for Acceleration and Inclusion. Recent protests against this law and the VAT. Includes deceptive provisions – e.g.: widened coverage of businesses not included in tax exemptions = but left an open window for review of the exemptions. Health cards will also be taxed.
- Corporate tax abuses
- Gender budgeting law says 5% budgets must be set aside for gender responsive outcomes. But in practice this doesn't happen.
- Women in Special Economic Zones is also an issue – women workers have very basic issues to prioritize – right to unionize; wage increases

The primary issue that emerges is how to link tax justice campaigns with the issue of reducing the tax burden on women.

Action Aid Australia talked about the country position covering the following –

Mainstreaming gender considerations in trade: engaged in submission to CPTPP inquiry, submission to Pacer Plus inquiry

GRPS:

- Engaged in beneficiary ownership, mandatory disclosure
- Hope to engage in the future: limiting tax avoidance of large Australian companies operating in low income countries

ILO negotiations:

- Advocate government support ILO convention on against GBV at workplace

Migration scheme

Un Binding Instrument on Business and Human Rights

Implementation: support 110 activists around countries- activist network

Regarding the ILO Convention against GBV at workplace, Marcelo shared the on situation mapping.

Situation in Myanmar was described by a pair of young social workers and the key points of their talk are summarized below -

- Most revenue comes from two main kinds of tax – income tax and commercial tax (80% of revenue)
- ActionAid Myanmar conducted research on education financing. Found that the general population has low awareness on tax compliance.
- 2017-18 Fiscal year: spending on social welfare and resettlement very low – only 0.25%
- In Myanmar, just beginning to popularize the concept of gender budgeting, GRPS, unpaid care work and decent work.
- Many organizations are advocating on women's rights and women's leadership – only 16% of women in parliament.
- Have had a lot of success working on GBV.
- Now we are seeing many cases coming up through social media – online and offline.
- National Strategic Plan for Advancement of Women: organizations contributing to and monitoring government's commitment.
- Working on Safe Space for Women (E.g.: Safe City Campaign nearby garment factory)
- Also working on living wages

In the last, Program Manager, ActionAid Vietnam Thuy presented an overview of the national scenario of women's position and the salient points of her talk are summarized below.

- In last 25 years Vietnam has transformed from the poorest country to a middle income country
- Economic growth has been accompanied with tax growth, hand in hand
- Tax incentives in Vietnam are difficult to quantify and hence impacts of tax incentives too are difficult to assess
- Corporate tax incentives are of not much help

- Tax and gender responsive services are required in Vietnam
- Debt over Vietnam is increasing at a faster rate
- Tax and women labour: US \$ 40 million Garment sector mostly employing women, but its share to national tax revenues is barely 0.1%
- Regarding unpaid care work ActionAid Vietnam has prepared three reports (2016, 2017 and 2018) which are available at its website
- Lack of public services has resulted in the increased unpaid care work
- Priority on decent work and GRPS in CSP VI 2018-2023
- Initiatives to end GBV
- Promoting social rights for migrant female workers in Vietnam
- CPTPP (Trans Pacific Partnership – a multilateral body) should look into and take care of the issues concerning women and tax

After the day long deliberations, common themes which emerged are listed below

- Low wages
- Gender-responsive public services
- Unpaid care work
- Legal framework – tax justice and women's rights
- Social protection
- How tax, women's labour, decent work link to SDGs
- GBV at the workplace
- Informal workers
- Binding treaty on business and human rights
- Women in vulnerable employment: restricted spaces for women workers organizing



Chalking out strategy for future

The next two days were solely devoted to a number of group exercises based on the issues which emerged on the first day. A crucial step in the last day was to chalk out a strategy and action plan for the coming year, as well as immediate tasks till 8 March 2019, culminating with International Women's Day.

On the last session of the last day, all participants were divided into two groups and were told to design a one-page newspaper, focussing on women's issues and the final outcome was the preparation of two newspapers by two groups.