

COMMUNITY CHARTER ON CLIMATE CRISIS

A Case Study from Baigachak of Chhattisgarh

Presented by

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AGRICULTURE IN BAIGACHAK OF CHHATTISGARH

- Traditionally Baigas are hill tribes practiced 'Shifting Cultivation' called 'Bewar'
- During one rotation of 'Bewar' they were able to grow 12 varieties of food grains, 5 varieties of pulses, 3 varieties of oil seeds and at least 21 varieties of vegetables and leafy grasses.
- Just after, Forest Act 1864, the practice of Bewar was completely prohibited but due of very specific biodiversity conservation practices the Bewar was allowed in Baigachak. A government ordinance was issued by Commissioner of Jabalpur (Mahakosal) giving this exemption to all villages which fell under Baigachak
(GO No 2860/1221/13 May/1890 by I K Laure).
- Over a twenty year period from 1868 to 1888 British administrators had used "compulsory and conciliatory" methods to end Bewar and settle Baigas.
- In 1930 Ketu Baiga sparks the revolt against British rule and raising the slogan for 'Bewar Swaraj'.

PERCEPTION OF CLIMATE CRISIS

- The Ban on Bewar Agriculture resulted in a great loss of bio-diversity as well as food security in Baigachak.
- The increasing rate of de-forestation (initially by Forest Development Agency and later by Mining operations) drastically affected the rainfall pattern in Baigachak.
- The uneven rainfall badly affected the traditional agricultural system.
- The increasing temperature (after deforestation) also resulted in high incidences of diseases and disorders in crops as well as in human beings
- The quantum of forest produce drastically decreased because of low rainfall, extreme temperature and (un-timely hot winds)
- The massive mining operations (mainly Bauxite) caused loss of ground water table and ultimately life and livelihood of Baiga community
- The new water demanding crops (like Rice, Maize and Arhar; and recently Sugarcane and Soybean) introduced by State is also a reason of uncertainty of livelihood

CHANGE IN RAINFALL PATTERN

- The average rainfall in Eastern/South Eastern Region (including Chhattisgarh) was decreased by 18% this year.
- The UNEP (United Nations Environment Programme) observed that desertification can occur even in sub-humid climates and in Chhattisgarh state in the districts like Mahasamund and Kawardha.
- In the Northern Hills (including Maikaal Hill Range), it was observed that the day temperatures are significantly increasing during October and November, while the same are decreasing trend in winter especially in March.
- In the Northern Hills agro climatic zone of Chhattisgarh, it was observed that the day temperatures are significantly increasing during August and September resulted in decreased crop production during Kharif (rainy) season. It was observed that if maximum temperature is increased by 1 degree celsius during reproductive stage in Rice yield decreased by 3-4 Qt/Ha.

THE SCALE OF LOSS

The impact of gradual crisis resulted in.....

- increasing temperature (by 8 ana)
- short period of winter (by 8 ana)
- erratic rainfall (by 12 ana)
- depleting water table (by 8 ana)
- loss of soil moisture (by 12 ana)
- loss of flowering and fruiting in Jungle (by 12 ana)
- lost birds and wildlife (by 12 ana)
- increase in disease and disorders in crops as well as in human beings (by 8 ana)
- increase in social erosion (by 12 ana)

CROP DIVERSITY IN BAIGACHAK

The practice of Bewar starts with temperature, wind flow and available soil moisture, because they don't plough the landthey believe that how they can plough in the hearts of Mother Earth.....

Month	Crop	Cultural Practice
January-February (Paus)	Badra Bhejra Dholre	Threshing and Storage
February-March (Magh)		Drying and Storage
March-April (Fagun)		Cleaning the land for Bewar Spreading green leaves on land
April-May (Chait)		Drying the green leave for Bewar
May-June (Baisakh)	Donger Kutki Madia Kang Salhar Sanwa Raseni Kutki Jujhru Urd Dingra Khirkanda Jwar Kurthi	Burning the dry leaves & shrubs Broadcasting the seeds
June-July (Jeth)	Kundru	Sowing Intercultural operations- nidai
July-August (Ashadh)	Juawr	Sowing Intercultural operations- nidai

August-September (Sawan)	Bhadeli Sawan Kheksa	Harvesting starts
September-October (Bhado)	Bhadeli Sawan Raseni Kutki	Harvesting
October-November (Kunwar)	Donger Kutki Madia Kang Salhar Sawan Jhunjhru Urd Dingra khirkanda	Harvesting
November-December (Kartik)	Juwar Garnurawans Purpuri Sawan	Harvesting
December-January (Aghan)	Urd Bedra Dholre	Harvesting & Threshing

The main Food materials grown during Bewar

Month	Flowers & Leaves	Fruits	Tubers	Mushrooms
January (Paus)			Badain Kanda	
February (Magh)			Kaniha Kanda Sedu Kanda Donchi Kanda Badai Kanda	
March (Fagun)	Girul Bhaji	Bhilwa Mahua		
April (Chait)	Dowe Bhaji	Bhilwa Mahua		
May (Baisakh)	Kevlar Bhaji Kakti Bhaji Piper Bhaji Amla Bhaji Kariya Bhaji Lamer Bhaji Kachnar Bhaji Tinsa Bhaji	Tendu Char Sure Aam Dumer Piper Bar Bel Sihar Kachnar Amode	Rabi Kanda Baichandi Kanda	

June (Jeth)	Cheraute Bhaji Lamer Bhaji Kachnar Bhaji	Saraimundi	Ravi Kanda Ludangi Kanda	
July (Ashadh)	Cheraute Bhaji Bramherkash Niraboda Bhaji Akoti Bhaji Cherauta Bhaji Konjiyare Bhaji Kusum Bhaji Kacchar Bhaji Bans Kareel	Bhui Kusum Jamun Mainher	Ravi Kanda Ludangi Kanda	Sarai Pihari Lal Pihari Baichandi Pihari Tuma Pihari Putte Pihari Rajbhodo Pihari Putu Pihari Bela Pihari
August (Sawan)		Ghui Bhatkatiya		Bans Pihari
September (Bhado)		Bhatkatiya		Bans Pihari
October (Kunwar)		Ameda Aaonla Boir	Tikhur Kanda	Ghantakhut a
November (Kartik)		Aaonla	Tikhur Kanda	Birsor Pihari
December (Aghan)				Birsor Pihari

The Diversity of Food Materials during Bewar

Roti	Bhat	Pej	Dal	Sabji	Oil
Madia Jowar Purpuri Makka	Donger Kutki Jowar Salhar Kang Katki Kang Makka Sikia Sawan Lanji Kutki	Donger Kutki Jowar Makka Lanji Kutki	Baigni Rahar Rawans Mandwa Badra Junjhru Kurthi Urd	Geethkanda Mirchi Kochaikanda Kheera Bhejra Dayngra Semi Patali Kumhra Torai Amta Dodka	Tilli Amta

The Food Matrix during Bewar Agriculture

Crop/ Fruit/ Flower/ Forest Produce/ Herbs	Food	Reserved Food	Medicinal	Social purposes	Total
Madia	10	10		10	30
Jowar	10	10		7	27
Makka	6	10		10	26
Purpuri	6	10	5		21
Donger Kutki	10	10		10	30
Salhar	10	8		8	26
Kang	10	6	5	8	29
Sikia	8	6		6	20
Sawan	8	8	6	6	28
Baigni Rahar	8	10		2	20
Rawan	6	8	5	8	27
Badra	8	8		5	21
Jhujhru	5	10	3	6	24

Kurthi	8	10		8	26
Urd	6	10	8	6	30
Gheetkanda	5	10	8	8	31
Kochaikanda	8	8	8	6	30
Kheera	10	5	5		20
Amta	6	10	10	10	36
Tilli	10	10	10	8	38
Aam	6	10	6	10	36
Char	-	10	6	10	26
Mahua	8	10	10	10	38
Tendu	6	10	6	7	29
Cherauta	5	10	10	4	29
Gond	-	10	10	10	30
Bel	-	10	10	10	30
Imle	5	10	7	7	29
Dhulia	-	-	10	10	20
Muslee	-	-	10	10	20

THE RESOURCE MAP

MAP I. (After 1980)

- Total ban on Bewar agriculture created loss of crop-diversity
- Forced to grow crops like rice, maize and arhar
- Use of chemical fertilizers completely spoiled their soil
- Loss of mixed forest which is replaced by plantation of teak and bamboos
- Loss of forest produce
- Loss of wild life

MAP II. (After 2000)

- Large scale mining operations created crisis of food grains
- Promotion of cash crops like sugarcane and soybean
- Loss of water table drastically
- Loss of forest produce
- Loss of wild life
- Massive deforestation

THE VERDICT

- ❖ Legalize shifting cultivation in selected areas of primitive tribes, which ensures the protection of seeds, flora and fauna conservation and its multiplication for the larger benefit of society.
- ❖ Revisit the Environmental Impact Assessment Notifications (2005 & 2009), which is grounded on violations of environmental ethics and social concerns and allows one-way clearances for massive industrialization and mining without honoring local governance.
- ❖ Ban on bio-fuel projects on areas of primitive tribes and forest dwellers, which causes serious damage to food security by propagating monoculture.
- ❖ Ban on World Bank funded forestry projects i.e. Social Forestry, Protected Area, Joint Forest Management, Community Forest Management etc., which destroys biodiversity.
- ❖ Revisit the Business Standardization procedures (like ISO 9001, 14000), which considers only business benefits and violates socio-environmental concerns of human beings.
- ❖ Honor constitutional commitment (Tribal Self Rule, 1996) given to primitive tribes for taking their consent before any mining, industrial and (so called) developmental projects which affects the life and livelihood of entire tribal communities.

Thanks

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