



Amchi Maharashtra Amcha Sahyog

The Marathas and May Day any contradiction ?

Edited by Viren Lobo/ Sunil Dubey

On behalf of **IELA**

(The Political Ecology of Water and Land Use Management - any lessons to be learnt ?)



Real Face of Maharashtra ?

Forward

The title and cover page covers many concepts, not all relating to Maharashtra. It is to set the stage for a multifaceted discourse where the written word is not sufficient to capture complexities, hence the use of imageries behind which many stories lie. The lesser known one is the connection between the wolf and pastoralism and between pastoralism and a migratory life style which is gradually becoming the dominant way of life for human beings, yet not recognised as such. Hidden inside of this is the wealth of grasslands not very well recognised by planners and more often than not dismissed in favour of sedentary agriculture. The rapid depletion of the ground water in many parts of the country and in drylands in particular is evidence that nature's response to climate and man's historical response to nature is bypassed in the glitter of production and productivity, more like moths attracted to a flame.

Is it accidental that dry regions have some of the highest year round wind speeds (though coastal regions can boast of higher wind speeds for part of the year) ? The temperature differentials across the globe cause the wind and sea currents with vegetation and Evapo Transpiration (ET) acting as dampeners. Trees as wind breaks, fire breaks have been the traditional responses to nature's fury sought to be channeled for more productive use of the land. Concrete jungles, dams, massive wind towers now replace this age old wisdom of mankind as Capital tries to bend nature to its will. Despite this massive transformation of countrysides, one still sees that nature's elements require to be respected. Be it the landscaping or the kind of machines brought into use by man, nature has the ultimate say.

Even as man sought to conquer world's beyond this earth, an invisible (to the naked eye) virus laid mankind low for a greater part of two years and still counting. Even as man acquired the power to overcome the curse of the tower of Babel, the nano world unfolded many of its mysteries as well, pointing to a duality required in mankind's response to nature and the harnessing of its bounty for the benefit of the human race. In this also came the recognition that the biodiversity being destroyed came at a price which the human race would find difficult to pay.

While Pro Choice is the fundamental pre-requisite for Pro Life and Ahinsa philosophies to have real meaning in today's world, mankind as a whole is running out of choices. The anti Club of Rome lobby says a resounding NO. It cites the remarkable and periodic discoveries/ inventions by the human race to make it's point. Namely that the end of petroleum and coal does not signal the end of the Human race. Recycling technologies and renewable energy provide answers hitherto undreamed of. So how come philosophies based on Pro Life, Ahinsa, Vegan exist simultaneously with increasing Xenophobia, Nationalist Jingoism, Racism ? These the antithesis of the Globalized and shrinking world ?

NO means NO says Amitabh Bachan in the movie Pink. A movie highlighting a number of preconceptions related to women. The foremost being that a women who stays away from the home late at night, mixes freely with boys is loose and available for the taking. In fact reality

is just the opposite. It is only by knowing the meaning of NO means NO can women enjoy the limitless freedom we all dream they can have.

This case study on Maharashtra will trace many aspects of fabric of society we have woven so far. Among them will also be the stark contradictions we face as a society. Water shortages in some of the regions having among the highest rainfall in the State and extravagance in the use of water in some of the most water scarce regions of the State. The policy of conversion of bagasse into electricity, promoting cultivation of sugar cane in the drought prone regions of the State is one such. We will also examine closely why it is not drought that resulted in suicides but the vagaries of the market. A sign that while civilization has come to terms with nature, there are forces released by Capitalism which we are powerless to control.

Decentralization of governance coupled with the possibility of decentralization in the production of electricity makes a different look at landscapes possible. All of this would not have been possible for Institute for Ecology and Livelihood Action (IELA) without engaging actively with the Provincial Apostolic Plan (PAP) of the Pune Jesuits and with Social Centre and Xavier Institute of Natural Resource Management (XINRM) in particular. The case study of Ahmednagar taken up by us is our way of giving back in some measure what we have received.

We hope this report provides the impetus for a qualitatively different nature of action research. One learning from the past, rooted in the present and with an eye to the future.

Viren Lobo

Managing Trustee IELA

Background

The inspiration for this report emerges from the collaboration with XINRM to develop the Institute on the unique footing of the theory and practise of NRM. This provided IELA with the space to develop its understanding gathered from over 36 years of practise in the field of its founder and managing trustee and similar experience of the organisations he has worked with over the years leading to the development of a National team dealing with many aspects of the issues related to ecological governance. The collaboration builds on the work done by the CEO, HABITAT who herself has more than 20 years of field experience in the field of ecology and the relevance of community knowledge in rebuilding broken threads. According Joint Managing trustee of IELA, himself having more than twenty five years of experience in the field of Environmental Sciences was entrusted with the task of developing this collaboration with XINRM at the academic level so as to absorb the plethora of field experience of IELA and its partners.

The presentation made by IELA to the Management of XINRM on 10th September http://ielaind.org/wp-content/uploads/2017/05/Advisory-Meeting-of-XINRM_VL.pptx outlined the thrust IELA could give to XINRM based on its field experience. At this meeting, IELA argued about the relevance of the Millenium Assessment tools as a way develop an integrated understanding on natural resources and devise optimal solutions to meet the multiple needs of the different stakeholders in the landscape. While IELA could not do the comprehensive assessment of Ahmednagar District as planned, it did manage to develop a perspective for Maharashtra covering different facets of the Natural Resource question. This understanding will be covered in different Chapters of this report based on the slide presentations made to the students of XINRM on the same.

The report <http://ielaind.org/wp-content/uploads/2021/01/Participatory-Action-Research-for-Ecologically-Sound-development-in-a-Tribal-Region-of-Gujarat.pdf>, prepared in 2017, was a culmination of ten year long journey post the understanding developing in SPWD about the need to look at different ecosystems in their totality to understand the logic of production based on the life support systems and ecological system services provided within. While being anthropocentric in nature, it stresses that nature has ways of speaking to us, if only we care to look deeply into the ecological interactions and their relation to the sociocultural and economic history that develops in its wake.

The presentation <http://ielaind.org/wp-content/uploads/2019/09/wildedible.pdf> by the same author points to a different way of looking at food security. It has been the basis for the framework dealing with the question of empowerment of women covering aspects of SDG 2, 3, 5 and through this developing an integrated approach to SDGs 1-6 and other SDGs as well.

The presentation made by Dr Sunil Dubey at the HRLN conference on 24th of July 2021 http://ielaind.org/wp-content/uploads/2017/05/Status-of-Bioresources-of-Rajasthan-Some-facts-IELA-with-HRLN_24th_25th_July_2021_Udaipur.pdf shows very sharply how the Aravalis not only defines the Desert, it defines the climate and human geography of India too.

The presentation also highlights the relevance of animal husbandry in making hostile terrains like the desert habitable.

It is this understanding that was brought to bear while dealing with multiple and complex variables that define the Ecological Management of Natural resources in Maharashtra and Ahmednagar in particular. For purposes of simplicity, two major historical developments have been taken to provide the contextual framework for Maharashtra.

The first being the rise of the Maratha Empire simultaneous to the downfall of the Mughal Empire. Prof Ajay Dandekar while pointing out the pastoral roots of the Deccan showed the relevance of cattle raids by pointing to stone memorials in honour of warriors who gave their life during these raids. His thesis was that the Maratha King Shivaji made a break from these pastoral roots by getting his Coronation done by a Brahmin from Varanasi.

The second being the incorporation of Mumbai (then Bombay) into Maharashtra while creating the States of Gujarat and Maharashtra. Despite Mumbai having people speaking Kutchi and Gujarati, it was given to Maharashtra on the grounds of its multicultural origins stemming from industry and the large labour force working in the City. May Day was therefore selected as the date for creation of both Gujarat and Maharashtra based on the struggles of the Samyukta Maharashtra Movement and the Mahagujarat movement. Keeping this in mind, this report regarding Maharashtra will try to address both the ecological and industrial drivers that have made Maharashtra what it is today.

Dedication

Fr. Bacher & People led Watershed Development¹

Fr. Hermann Bacher SJ

12 October 1924 – 14 September 2021

Coming from God's own beautiful land of Switzerland, Fr. Bacher made Ahmednagar district his home, when our people were in a desperate and hopeless situation, struggling to live off their dry barren fields in the rain shadow areas. In the true Jesuit spirit of the *magis*, Fr. Bacher was never content with the *status quo*. True to his name, which means BREAD in our local language, our people saw in him God's gift of life-giving bread for the hungry in the desert. Through the watershed programme, he brought alive Isaiah's prophecy: *'I will make rivers flow on barren heights, and springs within the valleys. I will turn the desert into pools of water, and the parched ground into springs.'*

Fr. Bacher brought the watershed programme to our village communities, transforming dry barren lands and rebuilding broken lives.

Shantabai, a widow in Mendwan, expressed very beautifully how Fr. Bacher's work changed their lives and their community in simple words:

Today, we all have enough to eat, and we eat from the same plate!

We, the Pune Province Jesuits, thank God for the gift of Fr. Bacher to our Province and our people. We have been touched by the fire in his heart, his compassionate commitment and his tireless striving to bring a more abundant life to those living on the margins of society.

We remember with love and are deeply grateful to him for the seeds of transformation he planted and nurtured, building people, local communities, programmes, organizations and institutions that continue to grow and bear abundant fruit.

We thank Fr. Bacher for showing us how to respond creatively and courageously to the cry of the earth and the cry of the poor;

how we take care of our common home as one human family; and how we must work together to ensure that no one is left behind.

May the good Lord bless Fr. Bacher a hundredfold for his inspiring life, witness and mission; for his cheerful, generous and compassionate giving,

for the difference he has made in our lives and the lives of so many at the margins, who now look to the future with hope because he chose to take the road less travelled.

May God grant him the fulness of life and peace! RIP

Stan Fernandes SJ

Socius, Pune Jesuit Province

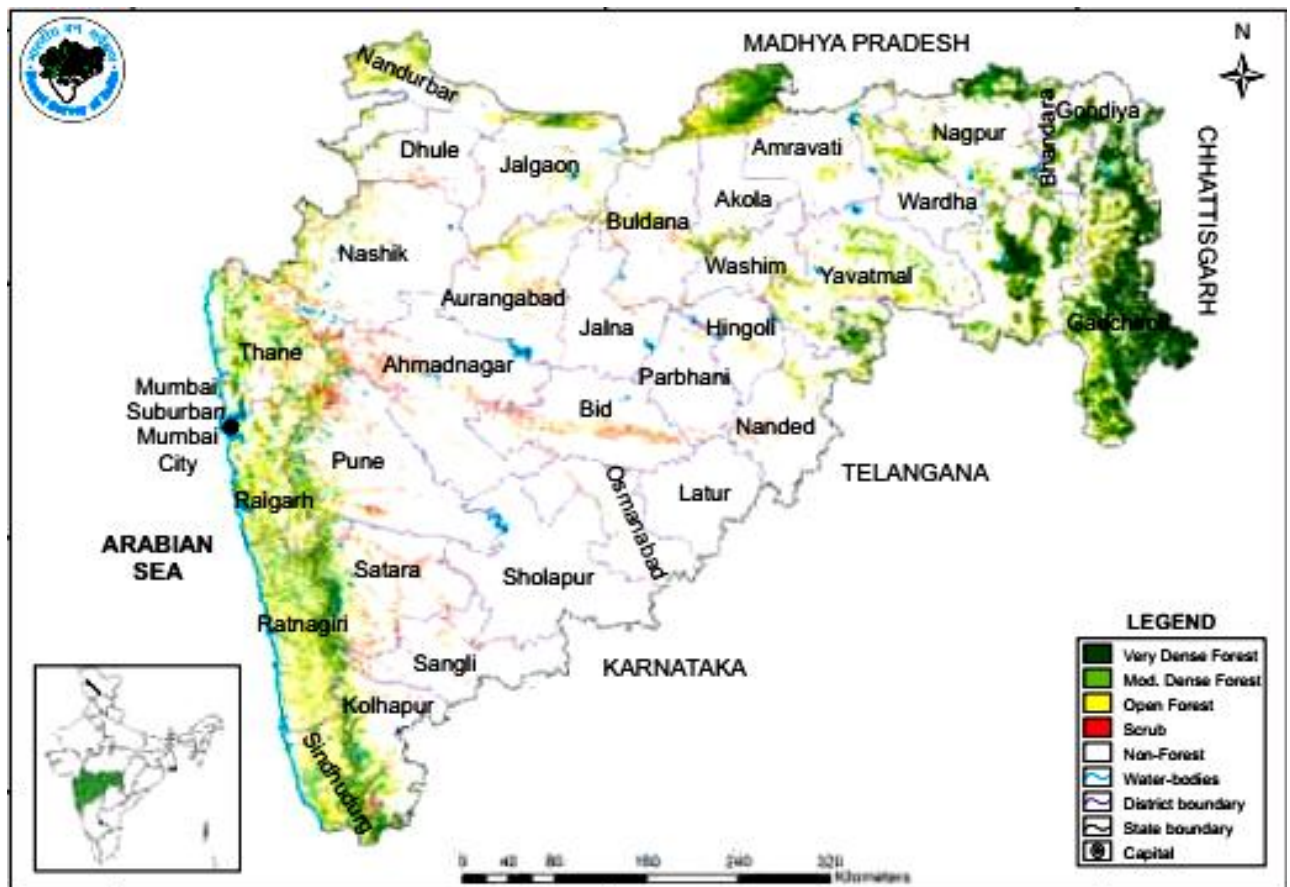
Sanjeevan Ashram, Pune 411001

020-26162181; 9860791697

¹ A title given to him due to his pioneering work in this field

Part II

Forests of Maharashtra



FSI Forest Map of Maharashtra

Maharashtra Land Use Scenario (Source: FSI SFR 2019)

Land Use Types	Area (ha)	Percentage
Total Geographical Area	30,771,000	
Forests	5,201,000	16.91
Land not available for cultivation	3,209,000	10.43
Permanent Pasture and other grazing lands	1,249,000	4.06
Land under miscellaneous tree crops and groves	249,000	0.81
Culturable wasteland	919,000	2.99
Fallow land other than current fallows	1,188,000	3.86
Current fallows	1,399,000	4.55
Net area sown	17,344,000	56.39

Source: Land Use Statistics, Ministry of Agriculture, Govt. of India (2014-15)

As will be seen from the map, the forests of Maharashtra are all located in the regions surrounding Western Maharashtra and Marathwada which is in the drought prone region of the State. A large area under agriculture is in Western Maharashtra and Marathwada as also grazing areas which will include partially area under crops as well (except for year round agriculture).

Maharashtra Forest Scenario (Source: FSI SFR 2019)

- Forest cover in Maharashtra is 50,777.56 sq km (16.50% of the total geographical area of the state)
- Forest Cover of Ahmednagar District is 266.89 sq km (1.57% of the geographical area of the District.

Table: Forest Cover of Maharashtra (sq km)

Class	Area (sq km)	% of Geographical Area
Very Dense Forest	8,720.53	2.83
Moderately Dense Forest	20,572.35	6.69
Open Forest	21,484.68	6.98
Total	50,777.56	16.50
Scrub	4,256.49	1.38

Table: Estimation of dependence of people in forest fringe villages on forests in Maharashtra

Fuelwood (tonnes)	95,39,132
Fodder (tonnes)	15,71,36,100
Bamboo (tonnes)	1,28,673
Small Timber (Cu m.)	8,62,138

The details provided here indicate that the nature of dependence on the biodiversity and its relevance to forest cover/ forest density is a neglected parameter. Lack of attention to this dimension has led to the undermining of life support systems in general and the biodiversity in particular. While not indicated specifically here, the nature of dependence of small ruminants on shrubs and bushes is ignored as it is generally taken for granted. Given the nature of the animal husbandry practices in the State and large populations of small ruminants, sub optimal policies on land use are being practised which will be explored in later sections of the report.

Part II

Water Resources of Maharashtra



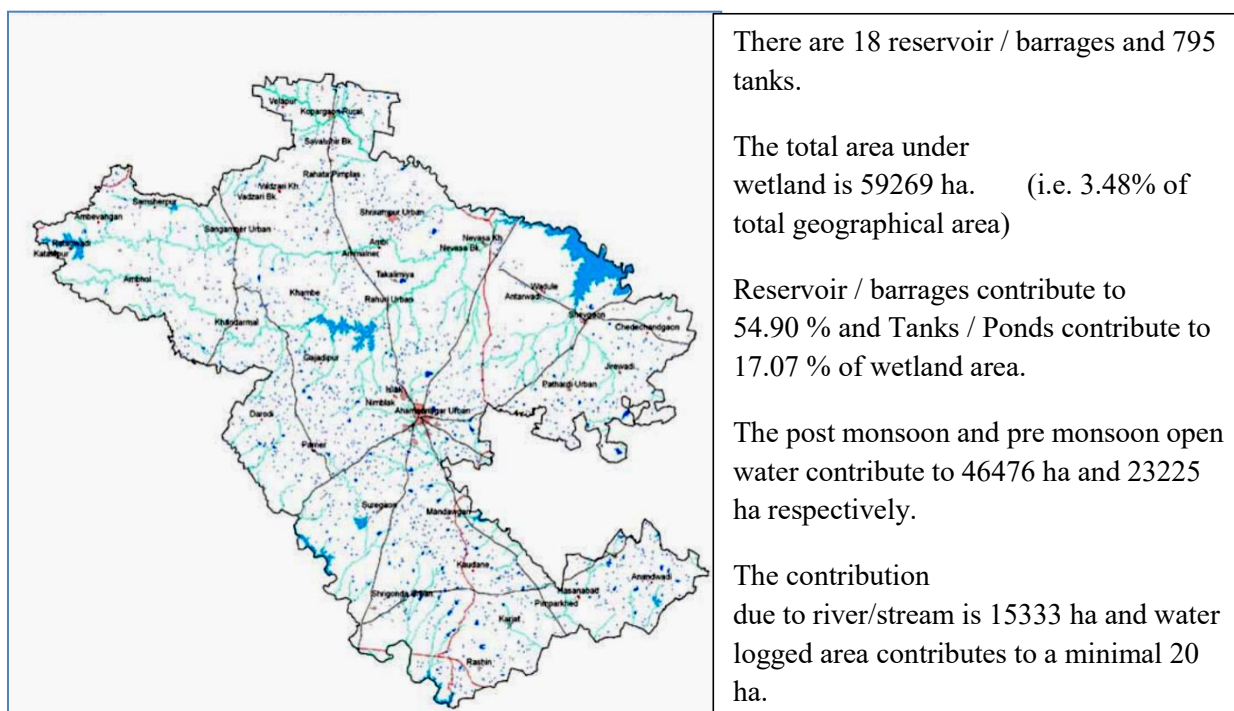
Water spread post monsoon is 2.58% of the Geographical area of the State

Extent of Surface Water Bodies (Wetlands) in Maharashtra

There are total of 44714 wetlands including 759 reservoir/barrages, 15845 tanks, 39 lakes/ponds and 3501 rivers and streams apart from other categories of coastal wetlands. The total area under Inland and Coastal wetlands is 1014522 ha. (i.e. 3.3% of total geographical area)

Wetland area covered by Reservoir/barrages >36%; Tanks/Ponds – ~21% ; Rivers / streams ~30%; Creeks - >3%; Mangroves - ~ 3%

Extent of Surface Water Bodies (Wetlands) in Ahmadnagar District



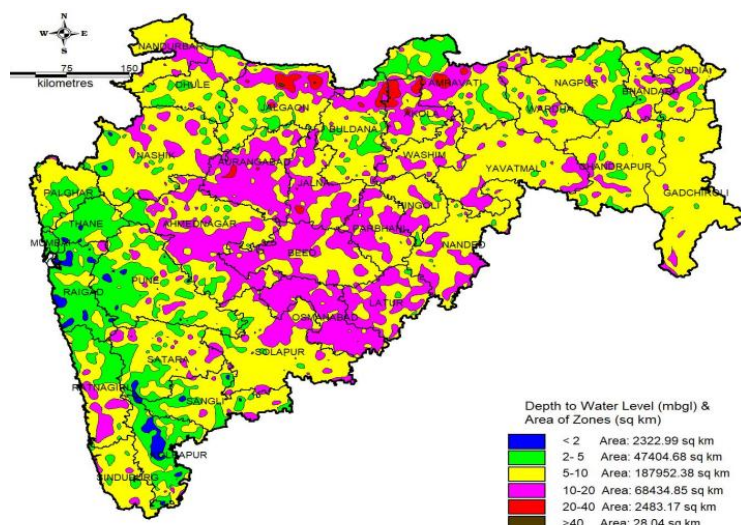
Post Monsoon Water Spread in Ahmadnagar

Area Estimates of Wetlands in Ahmadnagar (area in ha)

Source: National Wetland Atlas – Maharashtra, 2010)

Sr. No.	Wettcode	Wetland Category	Number of Wetlands	Total Wetland Area	% of wetland area	Open Water	
						Post-monsoon Area	Pre-monsoon Area
	1100	Inland Wetlands - Natural					
1	1106	River/Stream	619	15333	25.87	6546	1008
	1200	Inland Wetlands -Man-made					
2	1201	Reservoirs/Barrages	18	32540	54.90	30615	19016
3	1202	Tanks/Ponds	795	10118	17.07	9298	3186
4	1203	Waterlogged	2	20	0.03	17	15
		Sub-Total	1434	58011	97.88	46476	23225
		Wetlands (<2.25 ha), mainly Tanks	1258	1258	2.12	-	-
		Total	2692	59269	100.00	46476	23225

Ground Water Depth to Water Level in Maharashtra (May 2020)



Source: CGWB Year Book of Maharashtra & UT of D&NH, 2020-21

Note the level of depletion of ground water in the comparatively drier regions of the State.

Status of ground water Maharashtra State -

As per long-term trend (May 2011- May 2020) in water level during pre-monsoon it is observed that 59% of the GW monitoring wells have shown declining trend.

As per long-term trend (October 2011 – October 2020) in water level during post-monsoon 62% of GW monitoring wells have shown rising trend.

As per analysis of Decadal Water Fluctuation (Premonsoon-2010 to Premonsoon-2019) TO Premonsoon 2020, of ground water monitoring wells, it is found that 63% wells have shown rise in water level and 36% have shown decline in the water level. (CGWB Year Book of Maharashtra & UT of D&NH, 2020-21).

Out of the state's total geographic area of about 3.08 sq km the groundwater level has fallen in around 1.5 lakh sq km.

Over 9000 sq km area (including parts of Yavatmal, Chandrapur, Amravati, Akola, Beed and others) the fall in GW has been more than 4 meters.

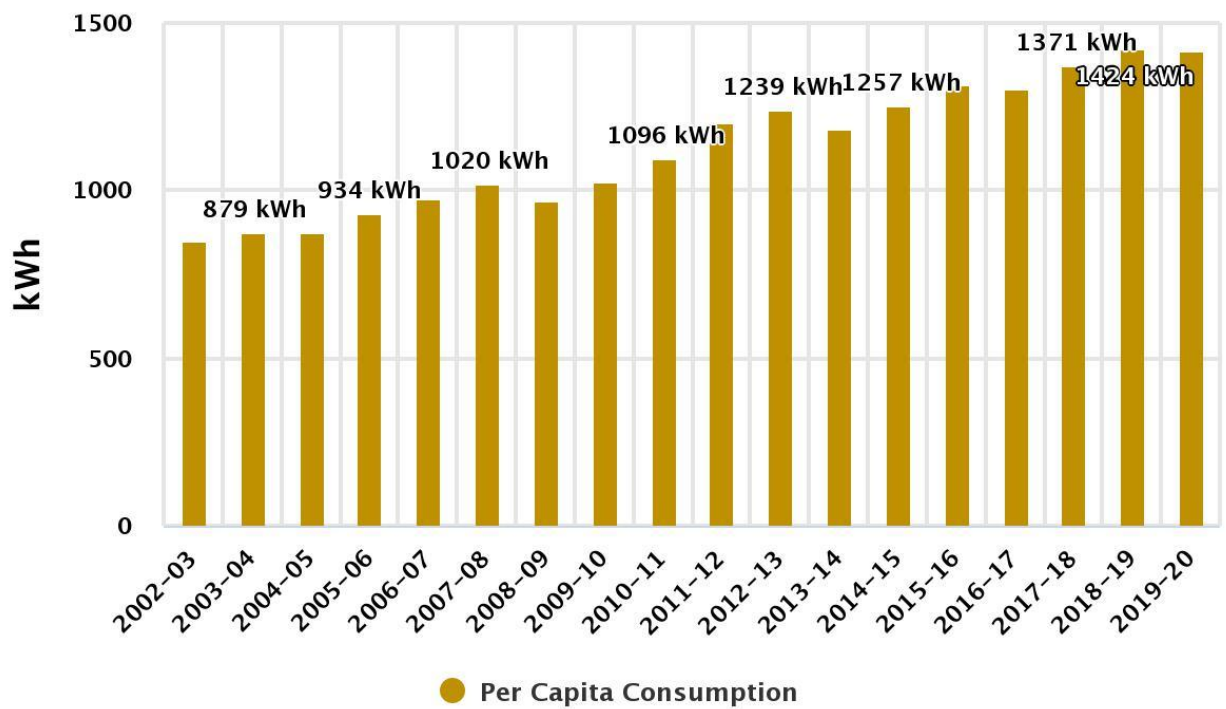
Over 28000 sq km area of the state has seen GW level fall of 2 to 4 meters.

Over 1 lakh sq km has seen 0 to 2 meters GW level fall.

Part III

Energy in Maharashtra

Per Capita Consumption (kWh)



Per Capita Consumption (kWh)

Category Per Capita Consumption

2010-11 1095.99

2011-12 1204.38

2012-13 1239.33

2013-14 1183.12

2014-15 1257.09

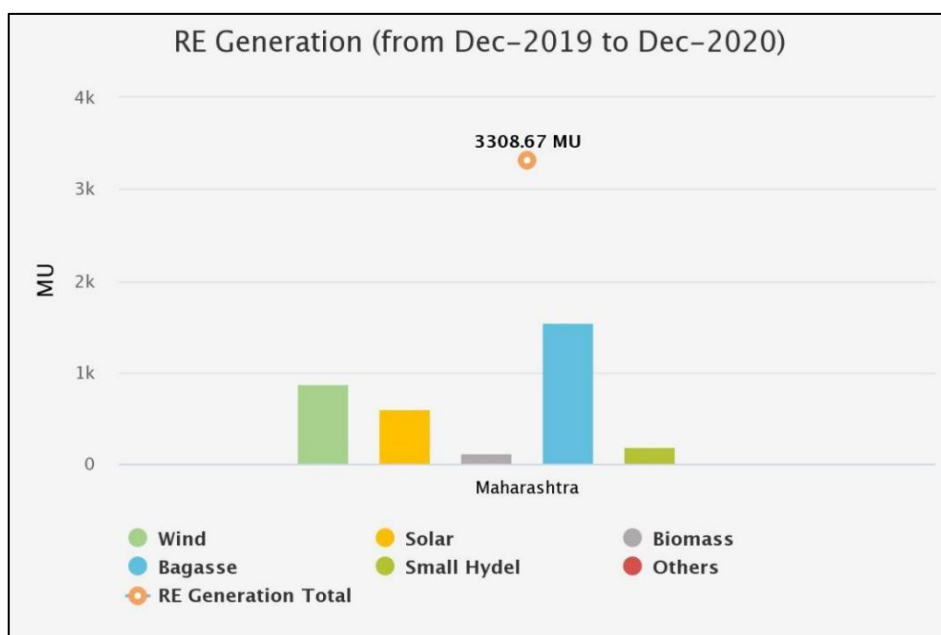
2015-16 1317.66

2016-17 1307.30

2017-18 1370.99

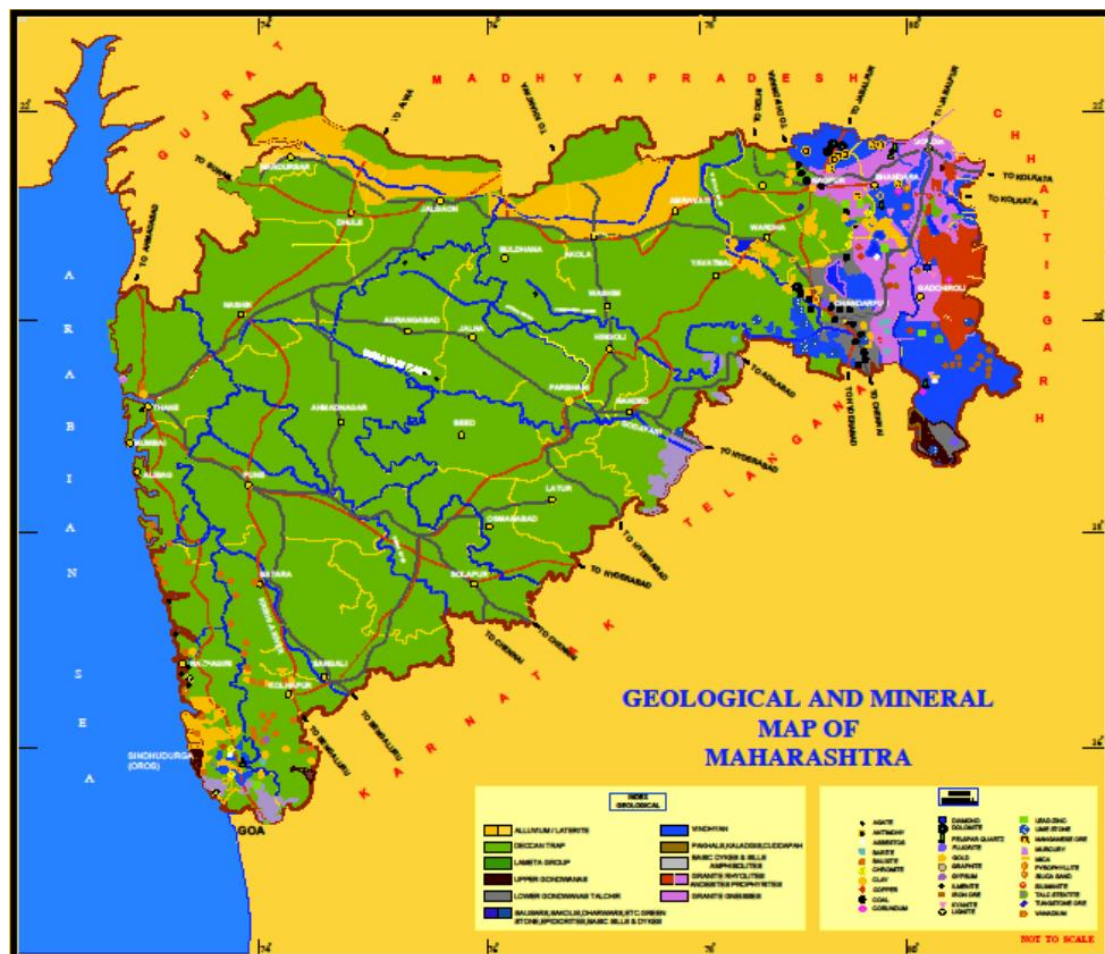
2018-19 1424.27

2019-20 1417.73



Note the % of energy from bagasse

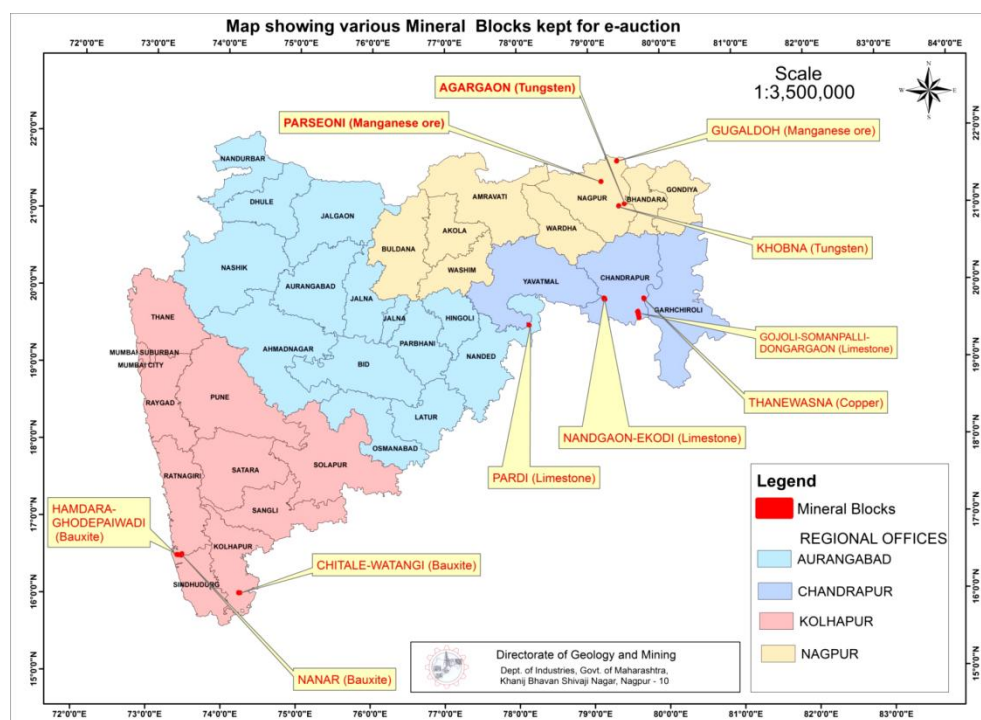
Minerals



Note the dominance of minerals in Vidharbha Region any relationship with ecological instability there ?

Mineral blocks ready for e-auction

1. Agargaon Tungsten Block
2. Thanewasna Copper Block
3. Gugaldoh Manganese Block
4. Nanar Bauxite Block
5. Hamdara-Ghodepaiwadi Bauxite Block
6. Nandgaon-Ekodi Limestone Block
7. Khobna Tungsten Block
8. Chitale-Watangi Bauxite Block
9. Parseoni Manganese Block
10. Pardi Limestone Block
11. Gojoli-Somanpalli-Dongargaon Limestone Block



Important mineral occurrences in Maharashtra (District-wise):

Bauxite - Kolhapur, Raigad, Ratnagiri, Satara, Sindhudurg & Thane;

China Clay - Amravati, Bhandara, Chandrapur, Nagpur, Sindhudurg & Thane;

Chromite - Bhandara, Chandrapur, Nagpur & Sindhudurg;

Coal - Nagpur, Chandrapur & Yavatmal;

Dolomite - Chandrapur, Nagpur & Yavatmal;

Fireclay - Amravati, Chandrapur, Nagpur & Ratnagiri;

Fluorite & Shale - Chandrapur;

Iron ore (haematite) - Chandrapur, Gadchiroli & Sindhudurg;

Iron ore (magnetite) - Gondia;

Kyanite - Bhandara & Nagpur;

Laterite - in Kolhapur;

Limestone - Ahmednagar, Chandrapur, Dhule, Gadchiroli, Nagpur, Nanded, Pune, Sangli & Yavatmal;

Manganese ore - Bhandara, Nagpur & Ratnagiri;

Corundum & Pyrophyllite - Bhandara;

Quartz & Silica Sand - Bhandara, Chandrapur, Gadchiroli, Gondia, Kolhapur, Nagpur, Ratnagiri & Sindhudurg;

Quartzite - Gondia & Nagpur;

Sillimanite - Chandrapur.

Production and the Value of Production in Maharashtra for the year 2018-19

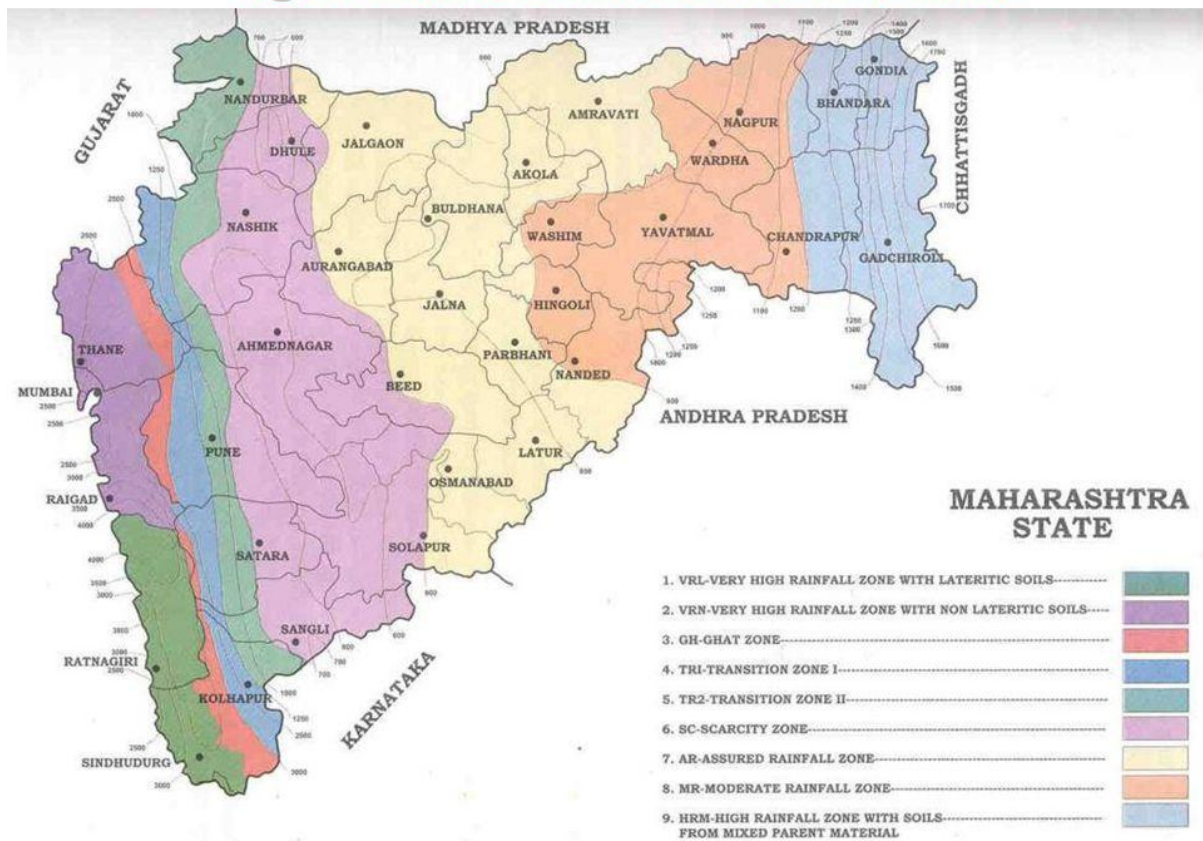
Mineral	Unit	Quantity			Value in Rs. '000		
		Quantity	% share in India	% change over 2017-18	Value	% share in India	% change over 2017-18
Bauxite	t	1424864	6.02	-29.77	721898	4.20	-24.44
Chromite	t	0	0.00	-100.00	0	0.00	-100.00
Coal	'000t	49818	6.84	18.00	0		
Fluorite(graded)	t	1079	100.00	-17.88	8483	100.00	-1.89
Iron Ore	'000t	660	0.32	-29.79	888797	0.20	-13.63
Kyanite	t	4889	100.00	-37.46	15228	100.00	-34.58
Limestone	'000t	14991	3.95	5.93	3267651	3.85	4.25
Manganese Ore	t	761424	27.00	4.10	8225757	36.23	13.56
Minor Minerals*					45940600	6.41	8.47
Sillimanite	t	13404	19.42	319.66	49907	8.92	357.69
Sulphur	t	46967	5.27	-20.27			

Source: MCDR Returns, Coal Controller's Organisation, Economics & Statistics Div., Min. of Petroleum & Natural Gas; *Data on Minor Minerals received from their respective State Government

Part V

Agriculture in Maharashtra

Agro-climatic zones of Maharashtra



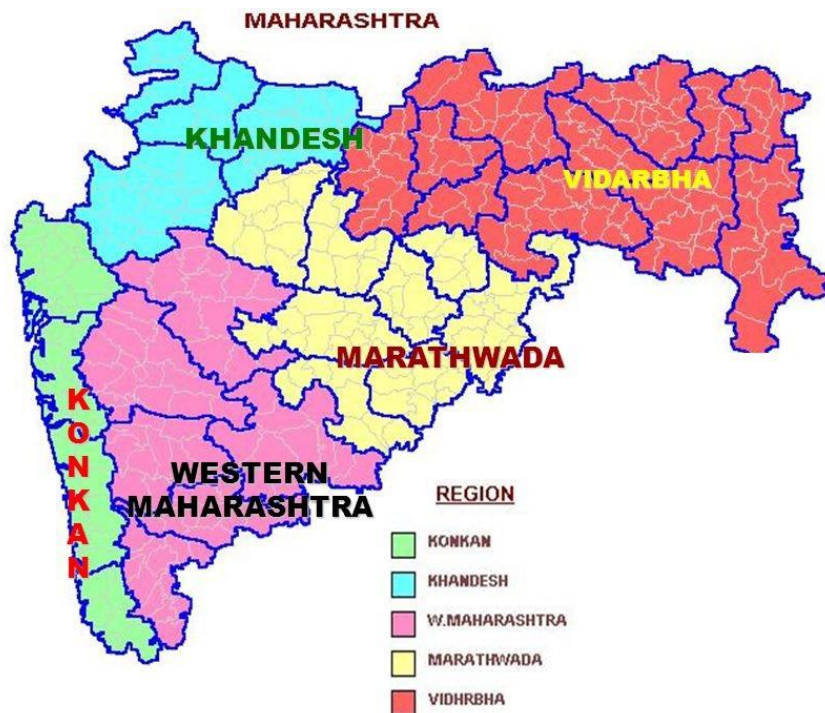


The coterminous of Dry regions of Maharashtra and sugarcane production



Sugar Industries, Sugarcane and renewable energy from Bagasse

Regions of Maharashtra



Traditional Cultural divisions any relationship with agroclimatic regions?

The regional cuisine : Relationship with traditional foods available ?



Food from Konkan and Western Maharashtra (Brahmin Cuisine)

Fish, rice and coconut used in the Konkan along with drying and fermenting techniques. Pulses, roots, grains and various flours with use of fresh herbs, little spices minus onion and garlic the speciality of Western Maharashtra Brahmins.



Western Maharashtra Maratha Cuisine and Marathwada Cuisine

The Marathas from the same region had meat and spices in their diet being poor they used less of herbs and vegetables and more pulses, dried spices, flour and millets. Marathwada due to rich quality of the volcanic soils mostly grows cash crops like Sugarcane and cotton and less food. district is known for its flavourful rice preparations, along with rich and flavourful curries. The eclectic fusion of both mughlai and marathi flavours make sure that it is a hidden gem in Maharashtra. It also has specific local delicacies like the groundnut chutney from Solapur, that is a sinfully textured semi-dry chutney.



Vidharbha and Khandesh

Vidharbha dominated by the Varhadi and Saoji tribe bring large bold spicy flavours to the table, yet are unique in their cooking styles and techniques. The common features include a largely non-vegetarian diet consisting of chicken and mutton, a heavy handed use of dried chillies, the use of groundnuts and groundnut oil, as it is grown in abundance the region. Other than these, these cuisines also use dried coconut, chickpea flour(besan), and black pepper.

Khandesh, is the land of the “kala masala”. “Kala” translates to black, in Marathi. It is named so because the masala consists of various roasted and charred ingredients which give the resulting masala a brownish-black colour. The use of this masala is the distinct identification of a Khandeshi meal. Apart from the masala, the Khandeshi cuisine is also known for the abundant use of onion, garlic, peanut oil and a small extremely hot green chili called the “lavangi mirchi”. Any Khandeshi dish has a noticeable smoky and umami flavour regardless of it being vegetarian or non-vegetarian. The Khandeshi people also have an unwavering love for eggplant. Eggplants can be char grilled over an open flame, then converted into a delicious mash, or then can also be stuffed and cooked in a nutty and spicy gravy, or deep fried in the form of fritters. The Khandesh region is also known for an abundant produce of fruit and vegetables; notably grapes, bananas, green leafy vegetables and grains like jowar, bajra, and ragi.

<https://medium.com/@TheOrcaCooks/marathi-cuisine-a-brief-look-46bd14ef2990>

Melghat News

The destruction/deprivation of the forest habitat on which the communities of Melghat depended shatters the comparatively rosy picture painted above. It however sharpens the need to pay attention to local food in the diet.

<https://en.gaonconnection.com/melghat-tribal-population-hunger-food-security-child-health-maharashtra-malnutrition-medical-supply-doctors/>

<https://timesofindia.indiatimes.com/city/nagpur/nearly-6000-kids-mothers-died-in-melghat-due-to-malnutrition/articleshow/54434218.cms>.

The story of Avni, not the maneater of Kumaon

<https://www.news18.com/news/buzz/tigress-avni-t1-killing-man-eater-supreme-court-maharashtra-3419375.html>

[https://en.wikipedia.org/wiki/Sherni_\(2021_film\)](https://en.wikipedia.org/wiki/Sherni_(2021_film))

These stories placed here to show that even the Tiger (in whose name the forests are being protected and tribals/ forest dwellers restricted/ displaced) is not safe. Is there a different way we can look at wildlife/biodiversity. A caged tiger also symbolises the **Iron Cage of Weber**. Does mankind have no answer to this ?

Part VI

Roses in the Sea



[The Lost City of Atlantis](#)

Roses in the sea²

I'm looking for roses

Roses in the sea

Just an honest chance to live

An honest chance to be free

I'm searching the wild world over

For life for liberty

It's much easier to find

Roses in the sea

A little lonely hungry boy

Is standing in the rain

The alley is his playing ground

His home a railway train

His food comes from the garbage can

His all what others give

He never stopped to ask himself

If that's the way to live

Sprawled on a bloody battle field

A soldier twists in the slime

Half his face has been blasted away

He's fallen for the last time

Far away people are waiting

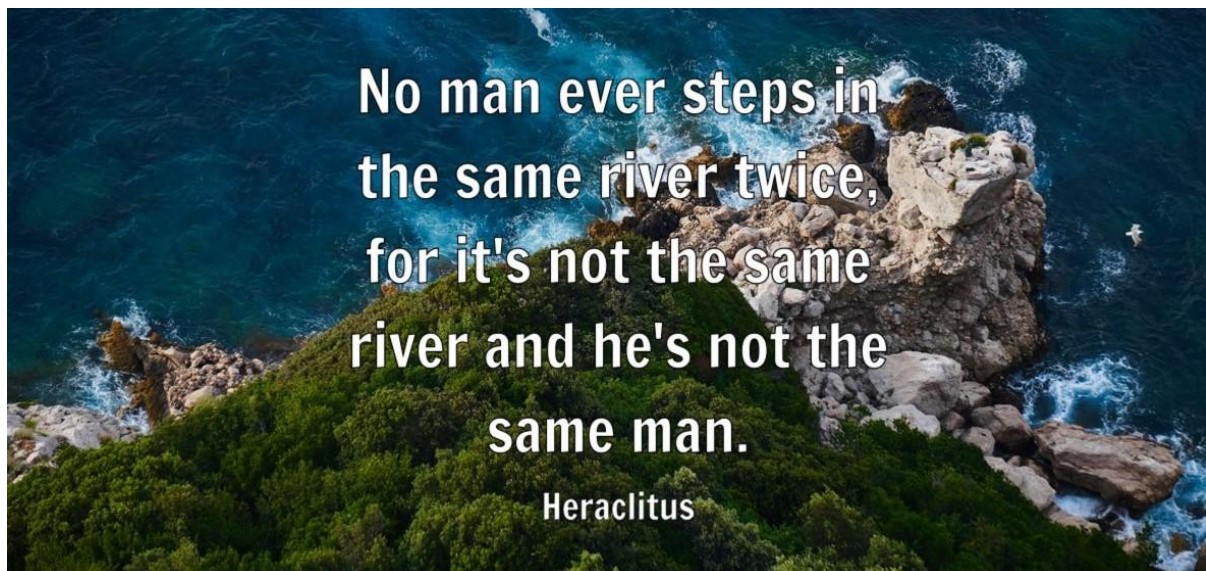
For Jimmy to come back to them

Poor people they are waiting in vain

² A song composed more than forty years ago but relevant even today

They won't see their Jim again
My searching is'nt over
In fact it's just begun
In these few years that are left to me
There's plenty to be done
And on that day I close my eyes
Perhaps then I will see
Those roses that I dreamt about
Those roses meant for me

This report is a story ongoing and will see many more versions and still will never be complete. YET, truth is the here and now and so with incompleteness we must live. An incompleteness that tells that we are so without the OTHER. For better or for worse, we are in the end judged by the things we collect around us. As IELA, we collect questions. The answers to which lead to more questions. Are we still in the same place that we started ? Yes me might reach this starting point again and again, but yet it is not the same.



The Road not travelled³

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;
Then took the other, as just as fair,
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that the passing there
Had worn them really about the same,
And both that morning equally lay
In leaves no step had trodden black.
Oh, I kept the first for another day!
Yet knowing how way leads on to way,
I doubted if I should ever come back.
I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference.

³ Robert Frost