

PSYCHO-SOCIAL IMPACT ASSESSMENT

Of

Community building (मनसंधारण)

Of

Participating villages in the
Satyamev Jayate Water Cup Competition

A report Submitted to

PAANI FOUNDATION

JNANA PRABODHINI'S INSTITUTE OF PSYCHOLOGY

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Acronyms (Alphabetical order)

- AVC - Adaptive Vibrant Community
- Avg. - Average
- CA - Commitment to actions
- FC -Factual Changes
- FE - Agency and Feeling Empowered
- FGD - Focus Group Discussion
- GM - Group motivation
- HP - High Performing
- IC - Inclusion- cohesion
- ICP - Interview of Common Person
- ILP - Interview of Lead Person
- JP - Jnana Prabodhini
- JPIP - Jnana Prabodhini's Institute of Psychology
- LP - Low Performing
- LSB - Leading by selfless behaviour
- MP - Mid Performing
- NM - North Maharashtra
- Occ. - Occurrences
- PF - Paani Foundation
- 'r' -Correlation symbol
- Sig. -Significance
- SJWC - Satyamev Jayate Water-cup Competition
- SPSS - Statistical Package for the Social Sciences
- VIS - Village Information Schedule
- WM - West Maharashtra

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Chapter 1

The Context of work of Paani Foundation

1.1 Maharashtra on 1st May 2019

The state of Maharashtra was formed on 1st May 1960. The state celebrated its 60th year on May 1, 2019. On the same day, one of the leading newspapers of the state carried a story on the first page, titled 'राज्य तहानलेले' – (thirsty state). In the same story, it was mentioned that 11,738 villages depended on tankers for its water needs, blame it on the alarming depletion of groundwater table across the entire state. This newspaper report was one of the many typical stories published that pointed out to the precarious and ever worsening state of water availability in the state. Drinking water was transported by railway wagons, supplies from municipal authorities to its citizens ranged from anything from two to fourteen days in several small and medium towns, standing crops were lost, thousands of cattle transported to temporary camps set up by the government and civil society organisations. Crimes over theft of water had begun as reported in several minor and major incidences. The state of Maharashtra is literally sitting on a (water scarcity) volcano. It is in this context that the interventions of Satyamev Jayate Water-cup Competition (SJWC) that began in 2016 (now in 4th year) assume critical importance. The subsequent report attempts to present our assessment and reflections about these interventions.

1.2 The National and the State context

India has more than 50% of its net sown area as a dry land area which accounts for 55 million tonnes of food grain production against the requirement of 240 million tonnes of food grains to ensure food security. So to harness the production requirement in rain-fed un-irrigated areas of the country watershed management is the only viable option.

The Economic Survey 2018-19 suggests that focus should shift from land productivity to irrigation water productivity. Devising policies to incentivize farmers to improve water use should become a national priority. The thrust should be on micro-irrigation that can improve water use efficiency. Cropping pattern is also highly skewed in favour of water intensive crops which uses the highest amount of extracted groundwater lowering the groundwater table. It also

proposed Zero Budget Natural Farming (ZBNF) technique which aimed to eliminate chemical pesticides and promote good agronomic practices that are eco-friendly and less water consuming.

1.3 History of Watershed Development in Maharashtra

A major part of the state of Maharashtra falls in the rain shadow of Sahyadri Mountain. In Maharashtra state, one-third of the area is drought prone area. This covers Ahmednagar, Solapur, Dhule, Nashik, Pune, Jalna, Jalgaon, Parbhani, Buldhana, Beed and some part of Satara and Sangli districts. Scanty and erratic rainfall is not useful at the time of sowing or at a critical stage of growth and these are the characteristic marks of this zone. Because of topographic conditions and the absence of vegetation, the land of this zone has been getting eroded on a large scale. Water run-off and soil erosion lead to wastage of Soil cover & this is a very basic reason behind the low productivity of these lands. This low productivity affects the income of agriculture.

The Royal Commission of Agriculture suggested the concept of drought-prone area in Maharashtra. So the government of Maharashtra started one centre in Solapur district (Mohol Taluka) for studying the drought-prone area problem as early as in 1973. The government of Maharashtra started programme related to soil conservation. The land reform law was passed in 1942. In drought conditions government works on the private lands as per this law. Maharashtra (Mumbai) is the first state to apply this law in India. In 1972 state government introduced the Employment Guarantee Scheme (EGS). The scheme is useful for watershed development programme.

Maharashtra has a large drought prone area (52%) and has faced recurrent droughts and famines (1907, 1911, 1918, 1920, 1972 etc.), which generated attention on the improvement of agriculture in non-irrigated areas. The Bombay Land Improvement Schemes Act (1942) became the precursor for the Government of India's Model Bill on Soil Conservation for enactment by all states in the post-independence period.

Following the 1972 drought, the Employment Guarantee Scheme (EGS) was initiated in the state and subsequently the Comprehensive Watershed Development Programme (COWDEP), in 1982, which saw the first steps in the direction of a systematic watershed development approach within government programmes. Ralegan Siddhi and Adgaon in Maharashtra were the initial NGO successes that popularised these model- villages. With watershed development as the central theme and they shot to fame even internationally. Today there are a large number of programmes

being implemented in the state through central financial assistance such as Drought Prone Areas Programme (DPAP), National Watershed Programme for Rain fed Areas (NWDPR), River Valley Projects (RVP), Integrated Wasteland Development Programme (IWDP), Western *Ghat* Development Programme (WGDP), state supported programmes such as Integrated Watershed Development Projects (IWDP) *Adarsh Gram Yojana* (AGY) and bilateral programmes such as Indo-German Watershed Development Program (IGWDP) besides a number of projects being implemented by Non-Governmental Organisations (NGOs) with financial support from local and foreign sources. Almost all these programmes have institutionalised the watershed approach to treating lands and water harvesting in association with people's participation to enhance the production potential of rain-fed farming. With Maharashtra's estimated potential of surface irrigation not expected to cross 30% of the cropped area (in a conventional sense), the importance of watershed development as a bulwark for rained agriculture is obvious in these large tracts of drought prone lands.

After 1977 the EGS programme was introduced on large scale in the State. Government started the works like Nala Building, percolation tank, contour bund etc. All these works are scattered up to 1983. There were so many drawbacks in this programme such as people participation, owner awareness, scientific approach, maintenance and lack of repairing. So the benefit of this programme was not satisfactory.

The soil conservation programme in state on watershed basis is in operation since 1983. The programme based on watershed named "*Krishi Pandhari*" and "*Shram Shakti Dware Gram Vikas*" (Development through voluntary labour) was launched in the villages Ralegan Siddhi and Aadgaon. The government of Maharashtra has launched a scheme named "Ideal Village Development Scheme". The objectives of the scheme are development of ideal, self-sufficient village through watershed management. The effect of co-working of NGOs, 14 Government Agencies and villagers was the reduced migration and improvement in the standard of living. The small villages are predominantly facing the problem of scarcity of water. The implementation of the programme is through NGOs and monitoring is through different committees. The core sector programme is necessarily implemented through concerned departments on a priority basis. The funds are made available to the NGOs/villagers by operating a joint account. "*Panchsutri*" (five principles) is the heart of the scheme. These principles are 1) *Shramadaan* (Voluntary labours) 2) *Kuradbandi* (Ban on cutting of trees) 3) *Charaibandi* (Ban on open grazing) 4) *Nashabandi* (Ban on alcohol) 5) *Nasbandi* (family planning) the programme

is being implemented in 296 villages covering 193 Talukas of 33 districts. The 247 NGOs are engaged in this programme.

Many watershed projects like Ralegan Siddhi and Hivare Bajar are in Ahmednagar districts, Gunj watershed in Akola district. Aadgaon in Aurangabad district has become successful. There is a considerable increase in many wells, irrigated area, cropping intensity and groundwater tables. The productivity of cereals, pulses and oilseeds have been increased. The response of the 'Panchsutri' is found to be excellent. The ideal village development programme is a major component in Maharashtra. The government of Maharashtra accepted the watershed development scheme in 1983-84 with merits and demerits. The concept is an important landmark in the history of soil and water conservation programme in the state. The work started from the ridge to valley for soil and water conservation. The programme named Comprehensive Watershed Development Programme (CWDP) has been launched for the first time in the country. In 1996 government of Maharashtra revised this programme with various new concepts like development of barren lands, artificial recharge of water, participation of people with money or labour work contribution, reuse of village tank and historical tanks. This programme is commonly known as "Integrated Watershed Development Programme" (IWDP). At present there are 1505 watershed programmes in 338 talukas.

1.4 NGOs and watershed development activities all over the country

It might not be probably incorrect to say that most of the NGOs, of small, medium and large size, have at some point in time in their life cycle, implemented watershed activities in their work area. These were either funded by the state or the central government schemes and or by donor agencies.

The first integrated watershed approach was what Mr P R Misra of *Chakriya Vikas Pranali* had initiated in Sukhomajri, Haryana. This was in early 1970s. Unfortunately, the momentum generated there did not continue as was recently documented. (<https://www.downtoearth.org.in/.../sukhomajri-falls-apart>)

In Odisha, *Gram Vikas* worked on watersheds projects covering about 15000 hectares of land in Bolangir and Kalahandi districts of Odisha between 2001 and 2010. The success in that project was documented in <https://www.youtube.com/watch?v=KWDMSbK7RfE>.

In Rajasthan in the western India, another NGO, [Seva Mandir](#) had the first watershed supported by AFPRO in 1983 in Kherwara block. In Karnataka, in Gulbarga, MYRADA was the lead NGO that implemented in the mid-late 90s. In Karnataka SUJALA WATERSHED PROJECT was implemented. The programme was a joint activity between the Government of Karnataka and the World Bank with community participation. In Southern India, Dhan Foundation had a Vayalagam Program, which focussed on ground water conservation. Later they had a major tank de-silting programme all over the state.

In Maharashtra, along with the Ralegan Siddhi work of Anna Hazare, the first scaled-up effort was the Indo German Watershed Development Project. Later NABARD championed it and helped it to reach a scale. The Government of India had started the Drought Prone Area Programme (DPAP) in 1973, which later incorporated the watershed principle. In 2003 became Hariyali and later IWMP.

The first participatory watershed was in Indo German WDP implemented in Maharashtra through WOTR-Social Centre. A brief history of Fr. Herman Bacher before the founding of WOTR is provided here <https://www.elgaronline.com/view/9781783471300.00013.xml> and https://www.researchgate.net/.../263348391_Social. Crispino Lobo authored a history of the Social Centre (the mother organization of WOTR founded by Fr. Bacher) in Crispino Lobo, “The Social Centre: An experiment in Advocacy,” in De Souza and Borges, eds., *Jesuits in India*, 253–74.

1.5 Jnana Prabodhini (JP) and Watershed Development

S.R. Bhagwat, the retired city engineer of Pune experimented the first ever treatments in watershed in the late 50s. Jnana Prabodhini’s founder V V alias Appa Pendse had studied these efforts. He started working on these likes from 1965 in the Shivaganga Valley of Sahyadri ranges in western Pune district.

AFARM was born out of an acute need for an Apex Institution to co-ordinate efforts of Non-Government Organizations (NGOs) in their tasks of providing drinking water and agricultural Extension services to villages in drought affected Maharashtra. It was one of the first organizations to operate as an Apex institution, in the country, as early as 1969. (<https://www.afarm.org/about-us/origin.html>) Jnana Prabodhini (JP) has been one of the founder members of AFARM. Late V S alias Anna Tamhankar was the treasurer of AFARM for some

years being also the Executive committee member for some years. JP was also in the designing team of India Mark II hand-pump along with Wadala Mission and Solapur Well Service.

1.6 Jnana Prabodhini's Institute of Psychology (JPIP)

Jnana Prabodhini's Institute of Psychology (JPIP) is an offspring of Jnana Prabodhini - the mother Institute and a psychology wing of Jnana Prabodhini Samshodhan Sanstha (JPSS) and it is affiliated to the University of Pune as a research centre. It is recognised nationally and internationally. It aims at **'Identification and nurturance of human potentials for a social cause with a foundation of research'**. It focuses on the core human potentials like Intellectual Abilities, Traits, Competencies, Skills and Behavioural aspects. JPIP is an internationally acclaimed research Institute aiming towards identification and nurturance of human potentials for social cause. JPIP covers multiple areas of research pertaining to Psychology and Education. It has conducted research in psychometrics, human development, school Psychology, educational psychology, Indian psychology, organizational behaviour, gender issues, defence psychology, and psychology of gifted. It has also undertaken interdisciplinary researches with humanities, languages, health Psychology, physical sciences, and managerial sciences. Some important government and non-government agencies which have supported JPIP for research projects are- UGC, NCERT, DST, SCERT, ICSSR, SRTI, TATA TRUST, NCY, MSWC, University of Utrecht-The Netherlands.

1.7 Paani Foundation's intervention at scale

As reviewed in the earlier paragraphs, neither watershed development interventions are new nor the efforts of civil society to achieve water conservation. There is a history of over fifty plus years of these efforts. The efforts of PF need to be reviewed in the background of multiple such efforts and what new and or different has been achieved by them.

A critical and noteworthy feature of the entire intervention is the massive scale. In the last fifteen years, everyone in the development sector has grappled with the challenge of scale. The earliest publication that we referred to in our literature review is titled as "Islands of Excellence". Interventions continue to remain as boutique, examples apt for writing case studies on pilgrim centres for exposure visits by fellow citizens. Outside the public sector, there are not many illustrations that covered a large geography in less than five years. How 'large' is 'large' is a

question that can be debated endlessly however in four years, as per the following tables, Paani Foundation's work could reach as many villages and talukas/districts.

Table 1.1 : Paani Foundation SJWC : At a Glance

Year	No of Villages	No of Talukas	No of Districts	Trained people
2016	116	3	3	850
2017	1321	30	13	6,000
2018	4025	75	24	20,000+
2019	4706	76	24	25,000+

Table 1.2 : Paani Foundation SJWC : Participation of villages

	PF Water Cup Competition 2019	Total No. in Maharashtra (Census 2001)	Percentage
No. of Villages	4706	44198	10.65%
No. of Talukas	76	368	20.65%
No. of districts	24	36	66.67%
Total number of resource persons trained 23530 = 4706 villages x 5 to 7 each village			

Source: Email interactions with M and E team of PF

The data from the above table shows that an intervention on massive scale has been achieved in four flat years, with steep uptake from the community in four regions of the state. More than 2000 villages have contributed in voluntary work thereby gaining some 'score' in the competition. This is to be noted in an election year (May/June 2019) when villagers could have preferred *not* to participate in the SJWC. While critics might like to underplay the scale of operations by citing the 'glamour' value associated with the participation, one needs to remind such critics that it takes much more than just the glamour quotient for people across the state to physically slog for 45 to 50 days, during the peak of summer with temperatures hovering around 40-45 degrees. The Paani Foundation intervention offers valuable lessons in design and implementation, with मनसंधारण as the core pillar with appropriate support of technology, training,

logistics, facilitation and monitoring – review systems, to name the few. We have discussed in detail on each of the above mentioned support pillars.

1.8 Theory of Change

The diagrammatic representation of how PF envisions the change triggered by the SJWC intervention is given below. Please note that this representation only represents the Supply side augmentation of the water part. Demand management of water and ecological restoration is not part of this representation. The Theory of Change as articulated by PF is presented on the next page:

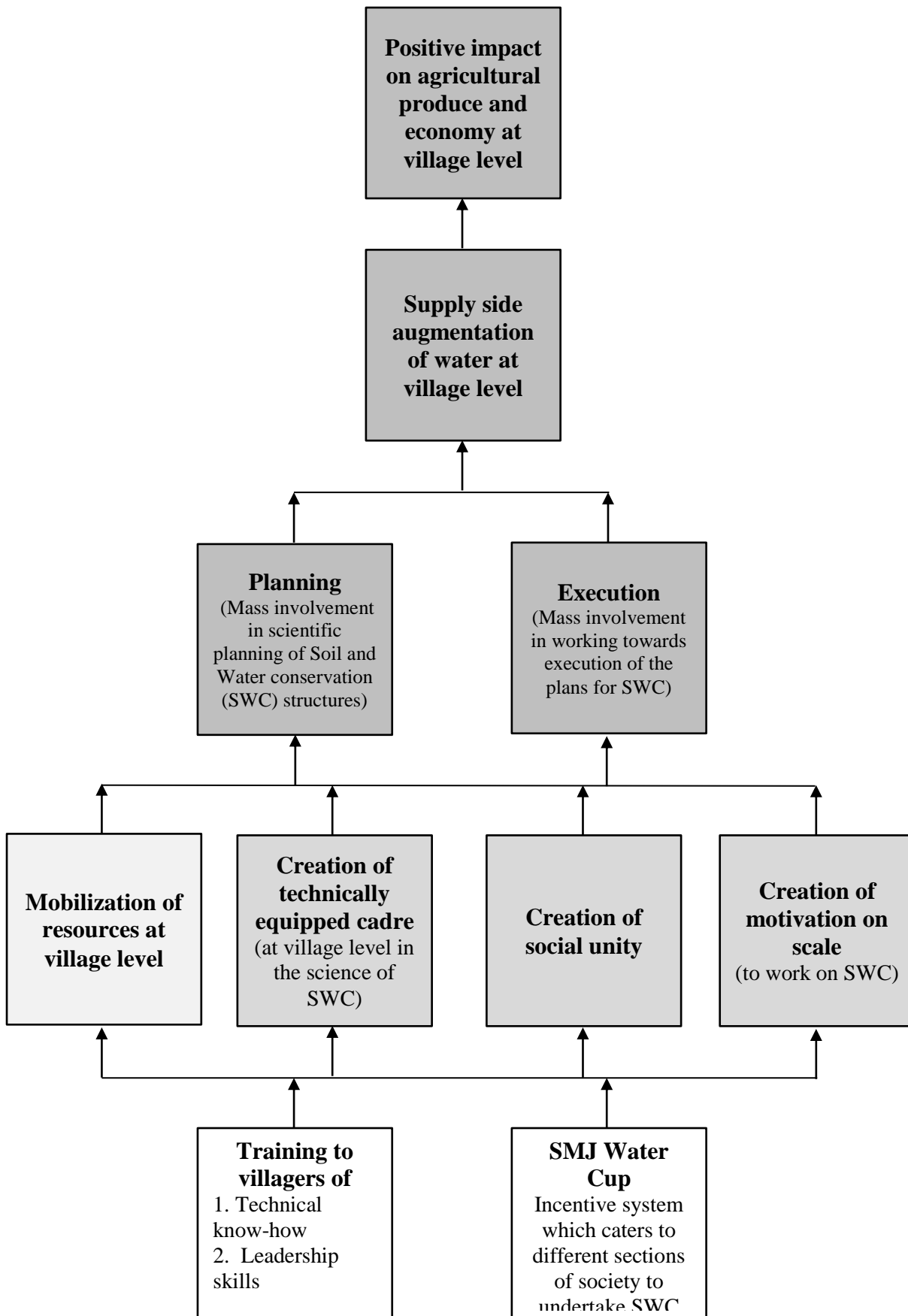


Figure 1.1 : Theory of Change (Source: PF concept note)

Community Building (मनसंधारण) first and Watershed development (जलसंधारण) later! Putting the horse before the cart:

In the design and implementation of the water cup competition, there is a clear emphasis and re-iteration of the prime mover of all development programmes – The Community. This is articulated in the coverage of topics in the training programme organized by Paani Foundation (PF). It is not a discovery or a new revelation. Every civil society organization and subsequently other stakeholders such as governments, donors, and corporate CSR personnel know about the primacy that ought to be given to the community. However ‘knowing’ about something and actually ‘doing’ or ‘implementing’ the norm can be a challenging task. For example, for a number of years, large scale watershed programmes began activities with what was called as ‘Entry point activities’. Out of a budget of say Rs. 100/- committed to a watershed programme for a village, Rs. 2/- to Rs. 5/- were allocated and spent on ‘entry-point’ activities. It was sort of a ‘carrot’ for the participating villagers that if they ‘behaved well’ in the entry-point activities, they would be later ‘rewarded’ by having access to the entire budget of say Rs. 95/- spread over say two to four years, during the implementation of the entire watershed programme.

In programmes implemented by governments, the cliché was ‘people’s participation in watershed activities’. The wording itself indicated a clear sequence of priority – someone (a do-gooder from outside to the community) ‘initiates’ a project and later the community participates. Even, in the post-watershed activities, ‘water users associations’ and cooperatives were formed as a line item in the project activities. This is more than semantics and is the core of the मनसंधारण model developed by JPIP based on the work of Paani Foundation in several hundred villages. It is the ownership of the community (Agency as described in development literature) that would subsequently decide the sustainability of the water cup intervention. The design of the competition, we think, assumes a shift in the paradigm from a *Mai Baap Sarkar or Mai Baap* (NGO), to ‘we as agents of change’. Thereby kindling, nurturing and strengthening the community's vision for a better future for themselves, initially by water conservation and hopefully later encompassing wider sphere of activities connected to overall well-being. Thus ‘*Manasandharan*’ forms the core pillar not just for watershed development but all subsequent activities. And it should continue to remain so. We have discussed this in the third chapter of this report. In the next chapter, we have referred to some salient research on the topic of management and conservation of common property resource and role of the communities in doing that.

Chapter 2

Literature on community Action and watershed development

There is a huge amount of literature on the topic of community/collective action and watershed development. A simple search on *Google scholar* generated following results!

- Community action in watershed development - 5,07,000
- Research in community action in watershed development - 5,59,000
- Community action in watershed development in India - 1,52,000
- Community action in watershed development in Maharashtra - 9,250
- Watershed development in Maharashtra - 15,100
- Community mobilisation for watershed development in Maharashtra- 3960
- Social capital and watershed development - 310,000

The purpose of the JPIP's study was not to produce an academic paper that is aimed at an international research publication. Since PF is an action organisation, the study had a clearly focussed mandate. However while developing the design of the study; we reviewed the literature that has a direct relevance to the study. We present some of the salient conclusions of those research studies. We **do not claim** this to be an **exhaustive** literature review. However, the pointers of those studies have helped the team to explore the topic of *Manasandharan*, the community building aspect of the PF intervention.

2.1 Some pioneering studies in common property resource management and communities: Olson (1965), Hardin (1968), Ostrom (1990) and Thaler and Sunstein (2008)

In any discussion on common property resources (CPR) such as water, forests and grazing land three landmark publications of researchers are inescapable. Beginning 1965 till almost 2000, researchers have time and again referred to the publications cited in the title of this paragraph.

Olson (1965) argued that in situations where a large number of individuals come together for a collective action resulting in a 'Public good', there will be a tendency to 'free ride'. Certainly, a sizable number of individuals from such groups will try to benefit from actions of other members. He also argued that in the absence of 'incentives', the drive for collective action decreases. To quotes, 'Unless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in their common interest,

rational ,self-interested individuals will not act to achieve their common or group interests’’. This argument soon became known as the ‘*zero contribution theses*’.

Olson’s work is important because it does offer interesting insights into community action. When communities resolve to ‘work together’ and certain sections abstain from participation, and demonstrating the tendency for free riding, how does the community evolve norms so that free riding is minimal and more members contribute to a creation of Public Good.

Hardin’s essay (1968) highlighted the rapid depletion caused by individuals’ acting in their own interest (without consideration to the over-exploitation of the resource by their usage). The obvious result of such behaviours is thus captured in the ‘*tragedy*’ of the *common* resources. These situations are also described as commons dilemma. A large number of researchers belonging to diverse disciplines of psychology, sociology, economics and mathematics have studied and published on the arguments put forth by Hardin.

Ostrom (1990) is one of the few pioneering political-economist whose work was rewarded with a Nobel Prize in Economics in 2009. Her research focussed on the governance of public resources or CPR. She argued in her work that *CPRs are best governed* if the institutions that manage CPR follow certain ‘design principles’. Of the eight design principles Ostrom argued were collective choice arrangements that allow most resource appropriators to participate in the decision making process, effective monitoring by monitors who are part of or accountable to the appropriators and a scale of graduated sanctions for resource appropriators who violate community rules. The eight design principles discussed by her are extremely relevant in the context of PF’s work with the communities who need to augment water resources and later decide in a judicious manner mechanisms to use the augmented resource (the demand management for water).

Thaler and Sustein (2006) in their seminal publication critically looked at the limitations of ‘bounded rationality’. While continuing to unequivocal support freedom of choice for individuals, they argued that in the domain of public policy, the government and policy makers need to ‘*set default options*’ in a manner that will induce ‘compliant behaviour’ from its citizens. These default options are according to them settling up a design of architecture in a manner that will lead to socially desirable behaviours, while perfectly respecting choice of individuals. In their book, they have provided several examples of how desirable public policy outcomes can be achieved through ‘*Libertarian paternalism*’. The *Nudge principles* when applied to implementation of public policies thus provide in the default options choices intended to be achieved by the goals of the policy.

Similar to the literature in economics and sociology, researchers on management themes have extensively published on the *prisoner's dilemma* game, a game that explores a number of possibilities of behaviour among participants based either on trust and co-operation or competition and mistrust.

2.2 Mind-Society-Behaviour

The world development report (WDR) of 2015 is exclusively devoted to the theme of how psychological and sociological factors deeply influence development processes and how development professionals need to be cognisant of their own biases about making assumptions about people's behaviour. The title of the WDR 2015 aptly sums up the expanse of its coverage: Mind, Society and Behaviour.

The WDR proposed a holistic view of studying individual and group behaviour that was earlier narrowly understood as human beings 'as rational decision makers' taking into consideration all possible information inputs and evaluating cost-benefits to arrive at a 'rational' and evaluating cost-benefits to arrive at a 'rational' and balanced decisions. The report has tracked important literature in economics, sociology, psychology, anthropology and neuro-sciences. It has presented a framework that consists of 'thinking automatically', 'thinking socially' and 'thinking with mental models'. It says, "We have innate preferences for altruism, co-operation and reciprocity, and we are strongly affected by the social norms and networks in our communities. We often want to meet others' expectations of us, and we act on the basis of shared identities."(Page 25). The report has an interesting reference to 'Entertainment education' (page 76). It starts with a question: "Can exposure to media provide a source of sustained change and means of promoting development?" PF's communication campaigns have a close resemblance to concepts of entertainment education.

2.3 Water and Governance

Mihir Shah, one of the foremost national experts on water sector argued in his discussion paper (Shah, 2018) that there was a pressing need to reform India's water governance if the country were to meet challenges of the 21st Century. In that paper, Shah emphasised urgency to leave considering water problem in silos and instead adopt a holistic approach. Among many changes that he proposed, some are directly relevant to the work of PF. He specifically highlighted, undue thrust on the supply side focus with little attention being paid on demand management of water, absence of sustainability considerations, discrimination and lack of equity in access to water and

need to put out all information on water for researchers and stakeholders. PF's emphasis is to motivate each village to prepare water budget is again aligned to this idea of community being made literate about demand and supply of water.

2.4 Psycho-Social dimension of a Watershed intervention

A publication in 1992 by Deshpande (1992) had one full chapter titled 'Development of micro watershed area'. Prof. V. D. Deshpande was a faculty in the Gokhale Institute of Economics and Politics. He was closely associated with many NGO movements of the state during those years. In the chapter on watershed development, the author documented experiments of Paani Panchayat in Purandar taluka of Pune district, Ralegan Siddhi in Parner of Ahmednagar, Gokul Pratishthan in Ratnagiri, Manavlok in Ambejogai in Beed, Nav Nirman Trust in Daund in Pune and Marathwada Shetakari Sahayak Mandal in Adgaon in Aurangabad. The introduction to the section starts with the following paragraphs.

“Watershed development is not just a question of physical planning: it is dealing with individuals who have different perceptions, ideas, misgivings, capacities, and so on. Development will not attain the desired goals unless the people involved in it are organised, motivated and enabled to harmonize their interests effectively.” (Page 31)

The authors after documenting the experiences of six NGO's raises a question, *“ The main question, therefore arises that if work on the lines indicated by six organisations is of basic importance, how can we take up such work on a large scale?” (Page 45)*

In the same publication, the researcher summed up learnings from the watershed projects of six different NGO's as quoted verbatim in the following paragraphs.

“Social activists have to recognize that watershed development is basically a socio-political activity, as it involves mobilization of farmers who differ from each other in respect to size of landholding, location of fields, soil conditions, social and economic status, etc. it is not easy to persuade them to agree to undertake the development of watershed which covers such a variety of farmers. The difficulties become aggravated, further, if the ultimate goal is to make arrangements for equitable distribution of benefits, especially of the augment water supply.

An important question arises that if the principle of equity is not adhered to right from the beginning, can we enforce it at a last stage? The answer is mostly in the negative. It follows that watershed development programmes will not necessarily lead to reduced inequalities among

farmers. In fact it may enhance inequalities. Thus while working for the development of small and poor farmers through watershed development programmes; we may succeed in bringing development benefits to a large number of farmers in the countryside; yet the goal of reaching all may elude us. Social activists have to give thought to his develop programmes in a manner which will help all farmers to participate in the gains on an equal basis.

(Page 45)

We have extensively quoted from the publication of 1992 because even now, all the issues flagged by the academic/researcher continue to be extremely relevant. Those issues have direct connection with the present work of PF initiated under the SJWC and the thinking on a introduction of a new version of SJWC aimed at sustainable water use and overall development activities in the village.

Deshpande (1992) concludes, “*Some of the ideas brought up by the activities of the organisations seem to be potentially capable of transforming the rural scene. Among these mention may be made of micro-watershed development with equitable water distribution as the central theme, bio-mass production and its use, social forestry, regeneration of rural commons with equity as the basic principle and the revival of Panchayat Raj institutions*”.

2.5 Increasing Extension Motivation for Development and Reducing Dependence Motivation

Pareek (1968) wrote as early as in 1968 a theory of ‘*Extension Motivation*’. He and others were part of the team that worked with David C McClelland (McClelland 1961) in India in the early 1970’s training entrepreneurs in Achievement motivation. Pareek further built on this theory and argued that concern for people and society is an important drive for people to extend them beyond self-interests and strive towards contributing larger societal goals. Pareek calls this – “*Extension motive- a need to extend the self or the ego and to relate to a larger group and its goals.*”

In addition to the above, Pareek (1968) also mentioned about dependence motivation, a factor negatively contributing to development. In his view, such a motivation exhibited in terms of behaviours seeking direction and support, lack of initiative, avoiding or shifting responsibility and perception of having no choice lead to excessive dependence on the state or outsiders.

He concluded the 1968 paper with the following conclusion that is relevant in the context of PF's work. *“Increasing achievement motivation (concern for excellence) and extension motivation (concern for others) are important for general socio-economic development. Equally important is to reduce dependence motive (concern for direction) in order to accelerate development.”*

Unfortunately not much follow-up research works happened on Prof. Uday Pareek's proposed motivations. Akhoury (n.d) expanded in his paper what he titled as 'social achievement orientation' for building effective community organisation. According to him, voluntary organisation by taking efforts to promote social achievement motivation will lead to “dealing with the acute problem 'internally' and 'permanently'”.

In the recent years, there have been a large number of research papers on themes such as 'altruism', 'self-interest', and motivation behind altruism and so on. Since PF is an action oriented organisation and the purpose of this study was to focus on those actions, we did not go in much detail in viewing those academic contributions. In our subsequent analysis in the chapter on community building (*Manasandharan*) we have attempted to build on both these concepts of extension motivation (leading by selfless behaviour) and feeling empowered to initiate change (Agency).

2.6 Leadership for collective action

Shah (1996) studied a number of (formal) co-operative organisations in south Gujarat and reported on the leadership styles and behaviours that he observed. To quote from one conclusion from his study, “successful leaders...tend to maximise public perception of the association between their efforts and the community's success but at the same time, they also cultivate, with effort and deliberation, a humility and equanimity which people find reassuring. Leaders who arrogate to themselves the role of the 'saviour' fail to earn community allegiance”. The above finding of Shah (1996) resonates very aptly with one of the pillars of *Manasandharan* – leading by selfless behaviour –propagated in PF's training and subsequent actions in the villages.

Zomeren et al (2008) have proposed an integrative social identity model of collective action (SIMCA) through a meta-analysis of 182 studies. They synthesized three variables of perceived injustice, efficacy and social identity. The context of these studies is protest and not so much developmental action. However their conclusions regarding formation of social identity are interesting.

2.7 Jnana Prabodhini and Watershed development activities

Jnana Prabodhini (JP), the parent institution of JPIP is associated with watershed and rural development activities almost since its beginning. All these activities are documented in the two publications of the institutions (1972 and 1980) referred here. In 1969, for instance, the founders of JP conceived of an integrated Shivaganga river valley master development plan covering 25 villages. Prior to 1969, the JP volunteers with the village community of Kalyan, a village at the foothills of Sinhgad near Pune constructed nineteen culverts and bunds to conserve water. The master plan was prepared in consultation with a Technical Advisor Rev. John McLeod, a Scottish Protestant belonging to the Church of Scotland. It included components of Soil conservation, water resource development, improvement in agriculture, animal husbandry besides education, health, banking, and rural crafts and so on. The 1980 report of JP begins with the following paragraph (Jnana Prabodhini, 1980)

“For the last twelve years, Jnana Prabodhini is actively engaged in rural development activities in Shivaganga and Gunjavani River Valleys. The two valleys together comprise of 137 villages. Rural development work is a perpetual struggle against poverty, illiteracy, lethargy, superstitions, caste barriers and evil addictions. The most crucial work is in the area of attitudinal change and motivation building. This is to be achieved through imparting formal and informal education. The aim is to inspire the young village men to strive for betterment of their village.”

The above excerpt is from the 1980 for a group of villages next to the Pune City. The context has not significantly changed even after 40 years. The challenge to inspire young men and women to take lead in the development of their own villages continues to remain at the core of all interventions.

In addition to the studies referred above, the JPIP team had extensive discussions with the PF leadership and a group of resource persons in the water sector. The study team also visited for a day training programme sessions organised by the PF. All these inputs thus informed our understanding of the concept of community building. We present those ideas in the next chapter.

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Chapter 3

Community Building: What is *Manasandharan* (मनसंधारण)?

3.1 What is Community Building?

The mandate for this study has used the word Psycho-social assessment of communities participating in the water cup competition. There is no appropriate word in English that captures the essence of the word *Manasandharan* (मनसंधारण)! While watershed development finds appropriate translation in the translated version '*Jalсандधारण*' (जलसंधारण), there is a similar description for conservation of soil (*Mrudसंधारण* मृदूसंधारण). The word (संधारण) conveys a deep meaning of 'holding together'. So *Jalсандधारण* is 'holding the errant water together', soil conservation is 'holding it together' and not allowing it to be eroded and dispersed as a result of rain.

Applying the above meaning to a community is like fathoming a deep lake. How to hold together a community mind together, assuming that there is something like a community mind! What factors bring together communities and groups of individuals? What processes get manifested when individuals come together for initiating social action? How to define these processes? How to measure these processes that are stable and transient at the same time? Are there standardized psychological tools to measure and assess such processes? Is it possible at all to capture a dynamic process such as communities holding together (मनसंधारण) at a given point of time?

These are some of the questions that we asked ourselves at the beginning of this study. We were not the first to study such processes. In the earlier chapter covering the literature review, we have summarised significant contributions of over a dozen scholars during the last fifty years. In spite of those contributions, we did not find adequate explanations to the central questions in this study:

- What is community building (*Manasandharan*)?
- What are the deeper level processes in *Manasandharan*?
- Is it possible to 'measure' these processes?
- How do past social and psychological events impact and affect these processes?
- Under what conditions, communities demonstrate high and or low 'holding power'?
- What is the role of leadership in initiating these processes?

Our construct of *Manasandharan* is presented in the following paragraphs. Before, we explain the model that we used for this study, it is important to describe the context and how this model gets applied.

Indian villages are a huge jigsaw puzzle for every researcher engaged in development studies. Understanding village communities is like attempting to piece this puzzle together. Factors such as caste, class, gender, religious beliefs have been extensively researched over a hundred years. In spite of many such studies, each village presents a new paradox to any outside researcher. The paradoxes are many such as

- ❖ A village has the highest per capita income in the region but is lowest on indicators of sex ratio.
- ❖ A village boasts of 100% phone connectivity but reports deaths due to malnutrition.
- ❖ A village reports more than 800 mm of rainfall but depends on water tankers for drinking water six months in a year.
- ❖ A village contributes thousands of rupees for community festivals, restoration of places of worship but hesitates to contribute a few hundred rupees to build a toilet for girls in the village school.

How does an outside researcher, first understand, map as well as assess these psycho-social processes in a particular village?

3.2 Six-factor Construct of community building (*Manasandharan*)

When we began researching for this study, we identified six critical pillars in the context of a village coming together for the Paani Foundation work. These six critical pillars form the core of our model. Before explaining each factor in detail, the summary of those ideas is as under:

1. **Inclusion and Cohesion** are the starting point for any collective action. Unfortunately, many of our villages are largely fractured entities. Only when communities divided by caste, class, status, landholding, and gender begin to see themselves as part of a larger coalition, inclusion and cohesion processes begin to unfold. Inclusion covers accepting/bringing together diverse group members with open minds. Cohesion happens with blending of people with different attitudes and opinions for some common action with a proactive mindset to co-operate with one another.

2. **Group Motivation for a Superordinate goal** is the next important step. Only when a large number of individuals see "We" before 'I' and start placing their faith and action in activities that transcend individual interests, superordinate goals assume a central place in the thinking of the community.

3. **Agency and Empowerment** are extremely critical in the current context in all social actions. Thanks to the welfare policies of the government for last many decades and insistence on the responsibilities of the state to ensure that citizens get all the rights that they are entitled to, an unfortunate and unintended consequence of overemphasis on 'Rights' have over-shadowed the sense of 'responsibility' of citizens. Rights and welfare measures have pushed communities to a situation of over-dependence almost leading to a sense of helplessness and even giving up 'ownership' of their 'own' duties. It is the government that has to build a toilet. The NGO has to bring a scheme for educating the girl and a corporate has to provide funds to deepen a well. This paradigm of 'learned helplessness' is a reality in many parts of the country today. True development is when individuals and communities think and act with a sense of empowerment and decide to take action on their own.

While the pillars we described above are fundamental to any community action, we don't argue that villages and communities begin from a position of nothing. Communities do unite for a celebration of the annual temple festival, take charge when faced with natural calamities and often place super-ordinate goals beyond individual profits and incentives. Offering mutual help in times of crisis and routine situation is an accepted ethos in many villages but the overall sense of dependence does pervade everywhere. Individualism is fast replacing collective action in many communities.

However, the process of community building needs leadership that demonstrates exemplary behaviour. Those are the next two anchors.

4. **Leading by selfless behaviour** is a critical factor. Someone needs to take charge and ensure that energy generated through forces of inclusion, motivation and feeling of empowerment and hope is channelized for constructive action. Many communities have lost hope in 'political leadership' that has 'used' them for personal benefits. A new model

of leaders who set a personal example is likely to further strengthen the process of *Manasandharan*. This leader can be of any class, caste or gender but the outstanding character that makes him / her a lead person is his/her consistency in thoughts- words and actions without having any vested interest or pursuit of personal agenda.

5. **Commitment to action** is a logical follow-up of the earlier anchors. While it is necessary to have inclusive, motivated, aspiring groups of individuals led by a number of extraordinary leaders from within, mere talk and limited action in responding to practical challenges is unlikely to lead to achievement of collective goals. In the context of the water cup competition, there is a real problem of acute water scarcity. There is a real challenge to mobilise teams for voluntary labour (श्रमदान), raise funds for equipment, plan activities during 45 days of work and so on. Thus commitment to action is another critical pillar in community building process.

6. **Becoming a vibrant village** is the last element of the *Manasandharan* construct that we have proposed. While water cup competition lasts for 45 days, it is NOT supposed to be an event that starts and ends abruptly at the end of the competition. The process of igniting minds for community action is expected to continue beyond the water cup. Thus, while the competition brings 'minds' together, the villages are expected to walk on the path even after the end of the competition. The aspirations and dreams for a better future for the community thus would probably ensure that the collective energies are not dissipated. The 'sustainability' of the water-retention is likely to be attained only when the 'holding together' continues.

Together, the above six pillars form the core of our understanding of the construct of community building. In subsequent paragraphs, we have discussed the Operational definitions of each pillar. Using this construct, the JPIP team designed both the quantitative and qualitative tools. These are explained in subsequent chapters.

3.3 Operational Definitions

In this model, we identified six critical pillars that lead to strengthening the community bonding. The operational definitions of each pillar was finalised and is as under.

1. **Inclusion- Cohesion: (IC):** Refers to identifying oneself with a group converging cognitive and affective needs with larger group, and feeling positive about being in company of fellow human beings.
2. **Group Motivation (for a superordinate goal): (GM):** Refers to preferring to sacrifice personal gains for group benefits and willingness to contribute in the achievement of the goal.
3. **Agency and Feeling Empowered: (FE):** Refers to a feeling of being in control of initiating the change process, a belief in power of self and group both keeping pragmatic outlook and disregard of learned helplessness.
4. **Leading by Selfless Behaviour: (LSB):** Refers to cherishing a sense of service to the society, willingness to initiate in adverse situations, being persistent and focused in work, and to keep away from obvious glory.
5. **Commitment to Actions: (CA):** Refers to awareness about internal and external resources with a willingness to tap them promptly, actual participation in actions towards the common goals in different ways and being consistent by believing in hard work.
6. **Adaptive Vibrant Community: (AVC):** Refers to an enhanced understanding of positive directions for change, increased awareness about emergent opportunities for wellbeing and readiness to cope with exigencies.

The first three factors motivate the community to visualise for itself change processes. Those are translated in reality by the leadership through their own exemplary behaviour and action orientation. The challenge is to retain the momentum beyond one single intervention and channelling those energies for sustainable changes for the future. We have presented this journey in the following picture.

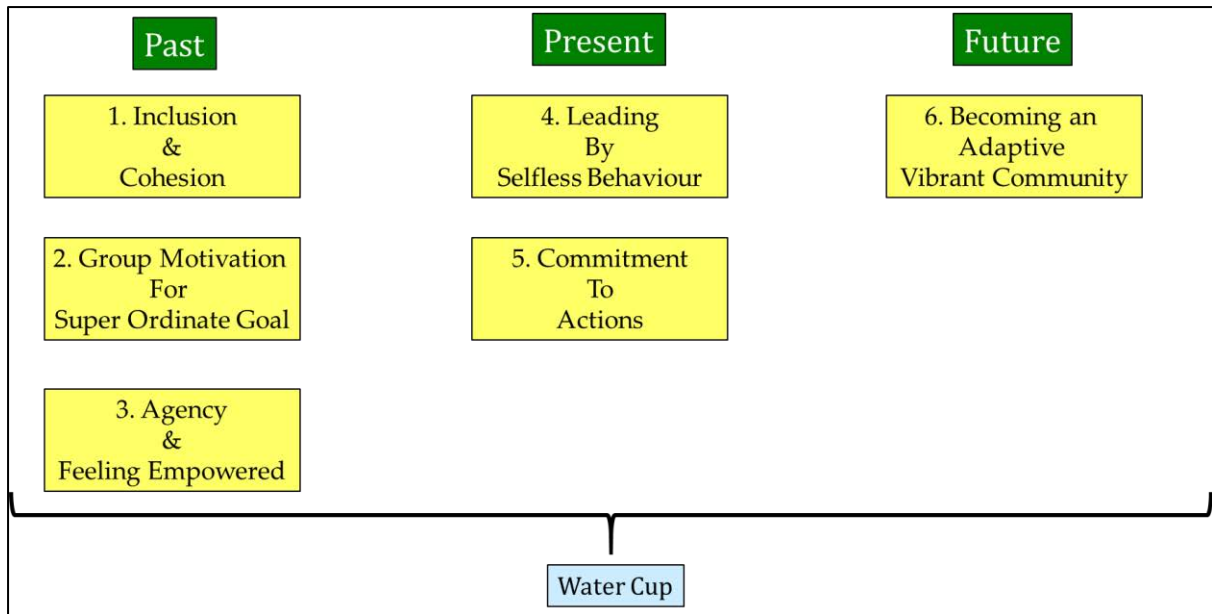


Figure 3.1 : Water Cup : Proofs of Action (As designed by JPIP)

In the next chapter, we have described the methodology adopted for this study and details on the conduct of this study.

Chapter 4

Methodology

The JPIP study team consisted of a core team of senior researchers with academic and professional work background in psychology, rural sociology, rural development and management, human resource development and organisation studies. The team met several times before and during the conduct of the studies. The team was supported by other researchers and volunteers in the field work. The study methodology consisted of four stages:

1. Articulating the process of community building for assessment
2. Developing set of tools for assessment including pilot testing and finalisation of all tools
3. Finalisation of the sampling design
4. Conducting field work as per the sampling design

In the following paragraphs, we have presented details of each stage of the study.

4.1 Articulating the process of community building for assessment

The senior team through a process of consultation finalised the concept of community building and the methodology to assess this. In the earlier chapter, we have described in details the elements of community building. The process involved review of relevant literature consisting of research articles, books and reports. The website and documentation on the social media by Paani Foundation provided useful insights into the design of the water cup. Visual documentation on YouTube narrating success stories helped in understanding the motivation and drive of the participating villagers.

Visit to the training centre of Paani Foundation

The JPIP core team visited Anapatwadi training centre of Paani Foundation. A training programme was being conducted. Interactions with the training team and some of the participants in that programme gave useful insights into the process of training, the content and the methodology used. The team also visited one of the locations where participants were informed about the technical aspects of watershed. This visit helped the team to understand the effective blending of technical and social messaging incorporated in training.

Meeting with experts

The field visit was followed by meeting with experts in the field of watershed and community development. This meeting was held in Jnana Prabodhini. Twenty experts engaged in rural development activities through watershed management attended the meeting. We asked the experts their understanding of the concept of community building as they would have experienced in the field. It was a brainstorming session. The experts shared their views, and experiences on factors involved in *Manasandharan* as perceived by them.

After collating the information obtained through above steps, we finalised the six factor Model of *Manasandharan*, This model has been the foundation for developing tools.

It was agreed in the experts meeting to use both qualitative and quantitative tools. The set of tools consisted of four parts: Village information schedule, a questionnaire to assess community building processes, schedule for focussed group discussion (FGD) and interview schedule for interactions with individuals.

4.2 Developing set of tools for assessment including pilot testing and finalisation of all tools

Village Information Schedule

The village information schedule was designed with a purpose to get an overview of the study village. The information to be captured was with reference to demography, status of agriculture, irrigation, livelihood opportunities, institutions in the villages, social interactions, intervention of other developmental programmes in the village and so on. This information was to be obtained from the government functionaries such as the *Gramsevak/ Talathi/ Sarpanch* and other respondents. The official information was to be validated in discussion with other citizens of the village.

The second tool developed was a questionnaire/scale to assess community building processes in the village. The questionnaire was titled '**About my village**' (*Amchya Gavabaddal*). Four meetings of the core team members and experts in this field were organized for item writing. In the first meeting, individual brainstorming and item writing process took place. First draft was completed after scrutiny of each item. It comprised of 43 statements requiring each respondent to record her/his responses on a scale of 1 to 4. Instructions for administering the scale were also elaborated.

Group discussion and interview techniques were finalized to collect qualitative data. Questions for FGD and interviews were discussed.

The third tool was an open ended questionnaire to be used for **Focus Group Discussion**. The first few questions were non-directive. It was decided that two separate FGDs for men and women will be conducted in the village using the same tool.

The final tool was for conducting **interviews with lead persons, both men and women**, persons who had taken lead in the water cup competition. It had fifteen open ended questions.

Guidelines for the field investigators to administer all the tools including the conduct of the FGDs and interviews were prepared. Each field investigator was required to obtain an undertaking in writing (a written consent) from each respondent.

Pilot Testing in two phases

To check the suitability of all the above tools (statements in the questionnaire, language, sequence, time required to respond, instructions etc.), pilot testing was done in two phases. In the first phase, Palshi, Belewadi, and Kanherkhed from Pune district were visited and data obtained on 4th May 2019. After the first phase of pilot testing, data scoring and analysis were done. Feedback on each tool was discussed in depth before revising the tools. For instance, eight new questions were added in the interview schedule to know more about the process and role of the lead person. It was also decided to include interview of at least two persons (other than lead persons) in the village, who might not have participated in the water cup competition.

The revised tools were tested in Belsar and Naygaon from Purandar taluka on 10th May 2019. Two separate teams collected the data. Thus in the pilot, data was collected from five villages consisting of 65 questionnaires, 4 lead and 4 common persons' interviews, and 8 Focus group discussions, four each for men and women.

Finalisation of the tools

After pilot testing, five tools were finalized for main data collection: Objective questionnaire, two interview schedules, FGD schedule and village information schedule. Details of all tools are given below-

1. Village Information Schedule

- **Objective-** To get an overview of the village
- **No. of questions-** 9 main questions (A to I) with sub-questions
- **Type-** Exploratory (Generates both quantitative and qualitative information)
- **Respondents -** *Gramsevak/Talathi/Sarpanch/Senior villagers*

2. About My village (आमच्या गावाबद्दल)

- **Objective-** To assess the psycho-social processes based on the six factors of *Manasandharan* discussed earlier
- **No. of items-** 38
- **Type-** Four point Likert scale, Quantitative
- **Respondents-** Randomly selected, typically 15 to 25 respondents equally divided among men and women from different social and economic strata
- **Scoring:** Every item is assigned a minimum 1 to maximum 4 score as per the scoring key. Minimum possible score: 38, Maximum possible score: 152. Each factor has a different minimum and maximum possible score depending on the number of items allotted to it. After calculating the total and factor wise scores, a separate score was calculated for some selected items from the main pool which directly referred to *Manasandharan* during SJWC.

3. Focus Group Discussion

- **Objective-** To explore the process of *Manasandharan* that was triggered during the water cup, the reasons for participation, watershed works completed, problems faced and solved during water cup, use of government schemes and other agencies, respondents' thoughts over success or failure, the commitment of lead persons, role models etc.
- **No. of questions-** 18 open-ended questions (separate for men and women)
- **Type-** Qualitative
- **Respondents-** Heterogeneous group of 8 to 10 persons (depending on the population of the village), different backgrounds and age groups, occupations and financial status.

4. Interview (Lead Persons)

- **Objective-** To understand the role of the lead person in SJWC, to explore the motivation behind leading, techniques used for motivating others, use of training during the competition, problems faced etc.
- **No. of questions-** 17 open-ended questions (separate for men and women)
- **Type-** Qualitative
- **Respondents-** Persons who took lead in planning and execution during SJWC as identified by the villagers or those who underwent training for SJWC

5. Interview (Common Persons)

- **Objective-** To know the perception of ordinary citizens from the village towards the overall process of community building during the SJWC.
- **No. of questions-** 10 open-ended questions (separate for Men and Women)
- **Type-** Qualitative
- **Respondents-** residents of the village

After the development of the above tools, scoring manual for the quantitative tool was developed. Special computer software was also developed to analyse qualitative data obtained from interviews. Transcripts of all interviews were used for the analysis in this software.

4.3 Finalisation of the sampling design

The sample for the study was 45 villages. Stratified convenient sampling method was used. These villages were selected from the list of participating villages, a list provided by Paani Foundation. **Three criteria were applied for the sample selection. Those were: performance in the SJWC as judged by the PF in the earlier years, region and frequency of participation in the SJWC.** The criteria for selection of the cohort were extensively discussed with the leadership of the Paani Foundation before finalisation. Their inputs were incorporated in the design.

We have explained the rationale of using these criteria below.

Performance of a village in SJWC was the first criterion for selection of the cohort. Villages that had scored marks above or equal to 85 were considered as ‘High Performing Villages (HP)’. Villages that had scored zero marks in SJWC were ‘Low Performing Villages (LP)’.

Villages that had scored 25 to 85 marks were mid-performing villages. For this study we narrowed the 2nd interval to get mid-performing village which could be clearly discriminated from HP/LP in terms of scores on SJWC. So the villages having 40 to 60 marks were considered as ‘Mid Performing Villages (MP)’. It is to be noted that these villages were assessed either in 2017 or 2018 before this study was implemented. Thus the performance was for the earlier years and not for 2019.

‘Region’ was the second parameter that was considered for the selection of villages. Maharashtra is divided into five administrative regions. Looking at the reach of Paani Foundation in Maharashtra, we included villages from all the 4 regions (West Maharashtra, Vidarbha, Marathwada, and North Maharashtra) for the study. When SJWC started in 2016, it took place in three regions: West Maharashtra, Vidarbha, and Marathwada. These regions continued to participate in 2017 as well. But in 2018 Paani Foundation introduced SJWC in North Maharashtra region. Considering this fact more number of villages from West Maharashtra, Vidarbha, and Marathwada were selected over North Maharashtra.

Frequency of participation was the third criterion. SJWC began in 2016 covering 3 districts. This number increased over the years, 13 districts in year 2017 and 24 districts in 2018. Equal number of villages that had participated in 2017 and 2018 were selected.

Villages that had participated in all the three years were selected for detailed case studies. These were one each from each region of the state. A separate document on the three case studies is attached at the end of this report.

We followed a pragmatic approach in selection of the sample. For instance, there could have been many other parameters such as size of the village, presence of communities, distance from the block headquarters etc. that potentially could have been used for selection. However, considering the available time frame for the preparation and implementation of fieldwork phase along with the staff budget and the logistics considerations, 45 villages were finalized. The overall research framework of the sample selected for the study using above criteria is as under in Table 4.1. The list of villages is given in Annexure PART –IV.

Table 4.1 : Cohort

Year of water cup	Region	High Performance	Low Performance	Mid Performance	Total
2017	M	3	2	2	7
	WM	3	2	2	7
	V	3	2	2	7
	NM	NA	NA	NA	0
2018	M	3	2	1	6
	WM	3	2	1	6
	V	3	2	1	6
	NM	1	1	1	3
Total		19	13	10	42
	Case Study Villages - 3			Total	45

M-Marathwada, WM-Western Maharashtra, V-Vidarbha, NM-North Maharashtra

4.4 Conducting field work as per the sampling design

Training of field workers: Before the commencement of the field work, the JPIP team conducted an intensive training of all field workers. All the senior members of the study team participated in the pilot study and also later in the main field work. Each one of them visited at least two villages in the sample.

The objectives of the training was to equip field workers with an understanding of the work of Paani Foundation- SJWC, help them to understand the construct of ‘*Manasandharan*’, implement the designed tools on the field and sharpen the required skill set for the same. The training was held in Jnana Prabodhini, Pune on 13th and 14th May 2019. Fifty two field workers participated in this training and later in the study. The list containing names of all the field workers is given in Annexure PART –IV.

Field work

Paani Foundation provided contacts of coordinators for the district and the taluka. The JPIP study team contacted the respective coordinators through whom names of contact persons from the selected villages were obtained before the commencement of the field work; these contacts were helpful in planning the logistics for the JPIP teams.

The field work for the study was carried out in four phases between 16th May 2019 and 17th June 2019. Sixteen teams visited 45 villages from four regions of Maharashtra. A phase-wise field work plan as implemented is in the following table. Each team spent two days in each village. Some of the teams stayed overnight in the village to be studied in the assessment.

Table 4.2 : Schedule of Fieldwork (phase-wise)

Phase	No. of Villages visited	Duration
1	18	16 th to 23 rd May
2	8	26 th to 31 st May
3	14	3 rd to 11 th June
4	5	12 th to 17 th June

JPIP teams 16, each team of approx. 4 to 6 field workers, consisting of both men and women. After each phase of the field work, feedback meetings were planned. In the feedback meetings, field workers shared their observations about respective villages. All of them talked at length about various lead persons, the drought conditions, water scarcity, participation of women, efforts taken by villagers, ‘*Shramadaan*’, community participation. These two hour meetings helped in finalizing the method of data coding. Listening to these experiences helped in preparation of the remaining phases. Basic ‘do’s’ and ‘don’ts’ of field work were discussed and new insights were added to earlier protocols. After completing all the four phases, another feedback meeting to consolidate the learning was organised in JPIP.

Data collection

In tables 4.3 and 4.4 we present the summary of the data collected from 45 villages.

Table 4.3 : Quantitative Data (*Aamchya Gavabaddal*)

Sr No	Zone	Men	Women	Total
1	Marathwada	125	128	253
2	West Maharashtra	136	113	249
3	Vidarbha	146	132	278
4	North Maharashtra	44	40	84
	Total	451	413	864

Table 4.4 : Qualitative Data

Sr. No.	Zone	VIS	Interviews (Lead)		Interviews (Common)		FGD		Total
			Men	Women	Men	Women	Men	Women	
1	Marathwada	14	17	13	12	12	14	14	82
2	West Maharashtra	14	16	13	15	13	14	13	84
3	Vidarbha	14	15	13	14	13	14	14	83
4	North Maharashtra	3	3	3	3	3	3	3	18
		45	51	42	44	41	45	44	
			93		85		89		267

Total: 267 interviews (transcripts for qualitative analysis) and 45 VIS

In the next two chapters, we have presented the analysis of both the quantitative and the qualitative data obtained in the field visits.

Chapter 5

Data Analysis

Quantitative Analysis was done using SPSS 21. The overall observations from the analysis of the perceived 'Manasandharan' – (आमच्या गावाबद्दल) were categorized in the following ways.

- Total group
- SJWC Performance wise
- Region wise
- Gender wise
- Village size wise

Separate software was developed for Qualitative Analysis. FGDs, Interviews of lead and common persons from 45 villages were transcribed into word format and uploaded to software 'Aalekh'. All the transcripts were marked into 6 pillars of *Manasandharan*. Three more factors were identified in the qualitative analysis namely the 'perceived factual changes', unique expressions by respondents termed as 'quotes' and 'slogans' used for SJWC. In the 7th factor named 'perceived factual changes', all the changes which happened due to SJWC are marked. It has an impression of the other factors like 'group motivation, and 'commitment to action'. The sample size mentioned in the tables denotes the number of documents (transcripts) analysed for the respective sample group.

5.1 The total group:

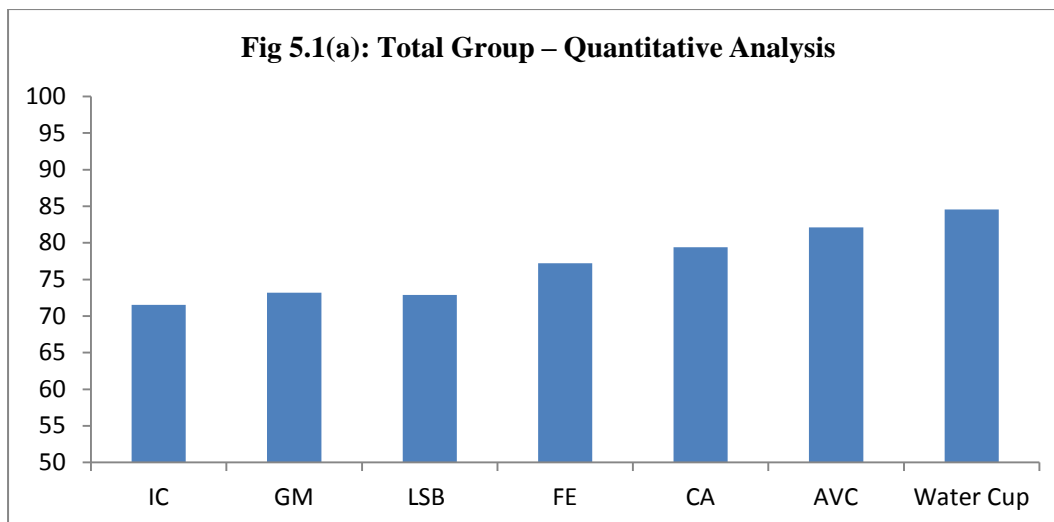
❖ Quantitative Analysis

The raw scores have been converted to percentages to create the same ground for interpretation.

Table 5.1(a): Total Group – Quantitative Analysis (N-864)

The numbers in cells represent the mean raw scores converted to percentages obtained by the respective groups on 'Amchya Gavabaddal(आमच्या गावाबद्दल)'. The mean score represents the average perception of the respective groups towards each aspect of Manasandharan' in the present population under study.

Areas	Minimum Obtained Score	Maximum Obtained Score	Mean	Rank
IC	34.38	96.88	71.51	6
GM	28.13	100	73.20	4
LSB	25.00	100	72.87	5
FE	28.57	100	77.21	3
CA	25.00	100	79.39	2
AVC	25.00	100	82.12	1
Water Cup	25.00	100	84.57	



As a total group highest response percentage (82%) seems to be attached to the factor of ‘vibrant village’ it means that most people have expressed freely and unanimously about their ideas of a functioning, vibrant village environment where many amenities and facilities are expected to make life easier and happier.

Followed by the vibrant village, is their perception of ‘work commitment’ (79%) indicating that they are ready to perspire and work hard to attain the goal of water conservation.

Their efforts have made them ‘feel empowered’ (77%) to change their present state to a better future ahead.

Their perceptions regarding the ‘leadership with selfless behaviour ’ (73%), overall ‘group motivation to attain the superordinate goal’ (73%) seem to supplement the earlier factors of *Manasandharan*.

However compared to all above perceived aspects of *Manasandharan*, ‘Inclusion and Cohesiveness’ (71%) at the village level seems to be lowest among others which is also the most difficult challenge for attaining the desired goal of ‘Vibrant Village’.

The highest percentage (84.57) obtained for the separately calculated score for *Manasandharan* referring directly to SJWC indicates its heightened level during the competition period.

This observation is for the total group which comprises villages from different regions, with different population densities and different performance on the water cup evaluation parameters. Thus the following analysis now focuses on these three dimensions separately to get a deeper and clearer picture.

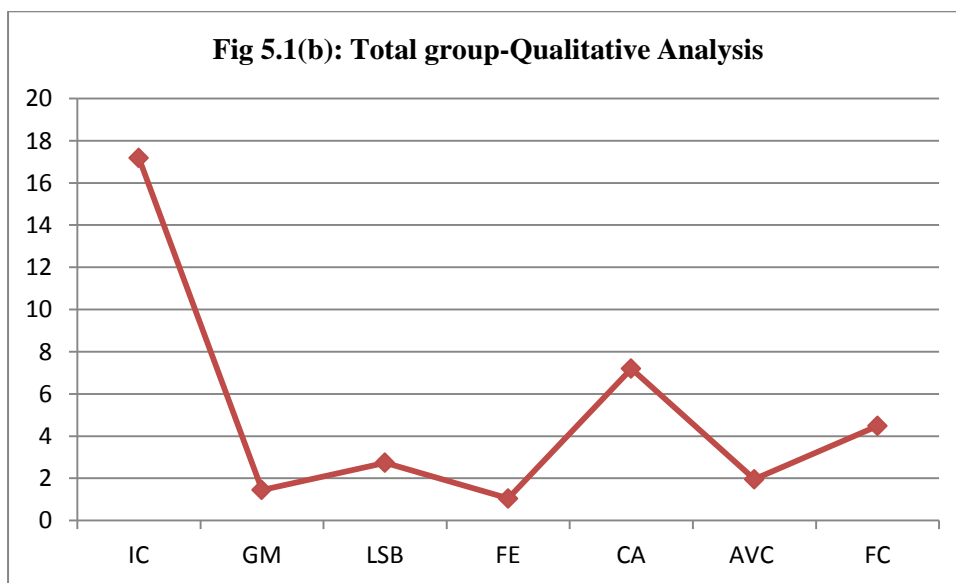
❖ **Qualitative Analysis**

In all, 267 documents were analysed for getting the trend of the qualitative data.

Table 5.1(b): Total Group – Qualitative Analysis (N=267)

Occurrences for the *Manasandharan* factors in the open ended responses (N=267)

Themes	IC	GM	LSB	FE	CA	AVC	FC
Total Occurrences	4592	389	731	280	1920	525	1197
Mean	17.19	1.45	2.74	1.05	7.20	1.96	4.48



Interestingly, the highest number of responses (4592, average 17.19) have been recorded for the Inclusion-Cohesion aspect **in the qualitative analysis** of the transcripts followed by the ‘Commitment to Action’ which is a natural covariate of the actual work people have put in the competition. It is followed by expressions regarding leadership through selfless behaviour. The remaining three aspects (GM, FE, and AVC) are more or less at a similar position afterwards.

Discussion: Social inclusion- cohesion is a very subtle and slow process. The objective questionnaire explores the overall impression of the villagers about this aspect while the qualitative instruments talk more specifically about the same on the backdrop of the SJWC event. Thus though their perceptions regarding the overall inclusion-cohesion seem to be lowest in the quantitative measure, the actual expression of the same during SJWC seems to be pretty intense, thus mentioned again and again in the narrations in varied ways.

5.2 Comparison according to Performance on SJWC score:

❖ Quantitative Analysis

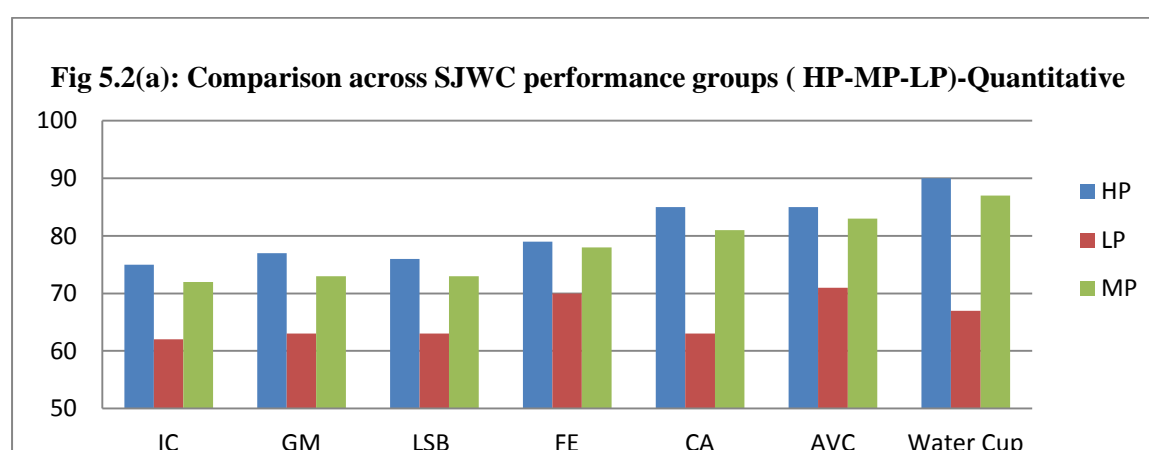
The Satyamev Jayate Water-cup Competition has led down specific parameters for the various aspects of work that the villagers need to do in order to score/perform in the competition and become successful. These aspects range from building different watershed structures to resource mobilization etc. Every village gets a total score based on this evaluation which places it in any of the three categories- High Performance (HP), Middle Performance (MP) and Low Performance (LP). The following table shows the overall perceptions of the respondents from these performance groups on different aspects of *Manasandharan*

Table 5.2(a): SJWC Performance wise – Quantitative Analysis

[HP (N-371), LP (N-186), MP (N-307)]

The numbers in cells represent the mean raw scores converted to percentages obtained by the respective groups on 'Amchya Gavabaddal (आमच्या गावाबद्दल)'. It represents the average perception of the respective groups towards each aspect of Manasandharan' in the present population under study.

Areas	HP	Rank	LP	Rank	MP	Rank
IC	75	6	62	6	72	6
GM	77	4	63	3	73	4
LSB	76	5	63	3	73	4
FE	79	3	70	2	78	3
CA	85	1	63	3	81	2
AVC	85	1	71	1	83	1
Water Cup	90		67		87	



The overall ranking of the six aspects of *Mansndharan* also seem to be on similar lines as that of regional groups for the present three performance groups. ‘Adaptive vibrant village’ ranks first while ‘Inclusion and cohesiveness’ gets the lowest-6th rank. While comparing the *Mansndharan* for these performance groups, it is seen that the overall and area wise *Mansndharan* in the villages which have performed high in the water-cup competition is significantly ahead of those villages which have performed low in the water-cup competition. This is also significantly observed for the separate *Mansndharan* water cup score in case of these two groups.

However, the difference in *Mansndharan* between the villages performing high in the water cup competition and those performing at a middle level in the water cup competition is not so large (though for some aspects it may be statistically significant even if marginal).

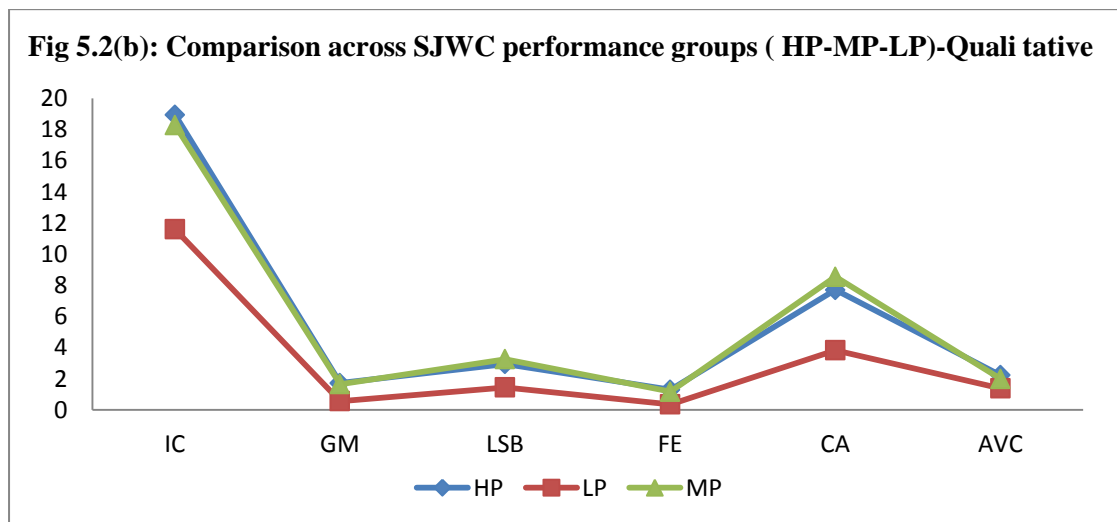
❖ **Qualitative Analysis**

Table 5.2(b): SJWC Performance wise – Qualitative Analysis

(HP (N-119), LP (N-55), MP (N-93))

Occurrences of *Manasandharan* factors in the open ended responses

Themes	HP		LP		MP	
	Occ.	Mean	Occ.	Mean	Occ.	Mean
IC	2254	18.94	638	11.6	1700	18.28
GM	205	1.72	31	0.56	153	1.65
LSB	350	2.94	79	1.44	302	3.25
FE	153	1.29	19	0.35	108	1.16
CA	916	7.70	210	3.82	794	8.54
AVC	264	2.22	76	1.38	185	1.99
FC	560	4.71	162	2.95	463	4.98



A similar picture is mirrored in the qualitative analysis as well. **The HP villages in SJWC have consistently and significantly displayed more number of expressions than the LP villages on all the themes/ aspects of Manasandharan.** Though the MP villages are in the second position, they are very close and sometimes little ahead of the HP villages in the responses generated for all aspects of *Manasandharan*.

Discussion: The consistency between the quantitative and qualitative data obtained for the three groups validates the homogeneity regarding objective and subjective impressions of the villagers regarding *Manasandharan* in these differently performed villages. The HP villages are considerably ahead of the LP and marginally ahead of the MP villages in the objective measure due to their diligent and consistent efforts, percolation of the motivational inputs across the diverse groups in the village. The MP villages also have been neck to neck with the HP as they have also crossed the basic criterion of good performance and consequently the emergence of *Manasandharan* due to that churning. Many of these MP villages have been HP in earlier years of SJWC, maintaining their consistency to a considerable extent.

5.3 Region-wise analysis:

❖ Quantitative Analysis

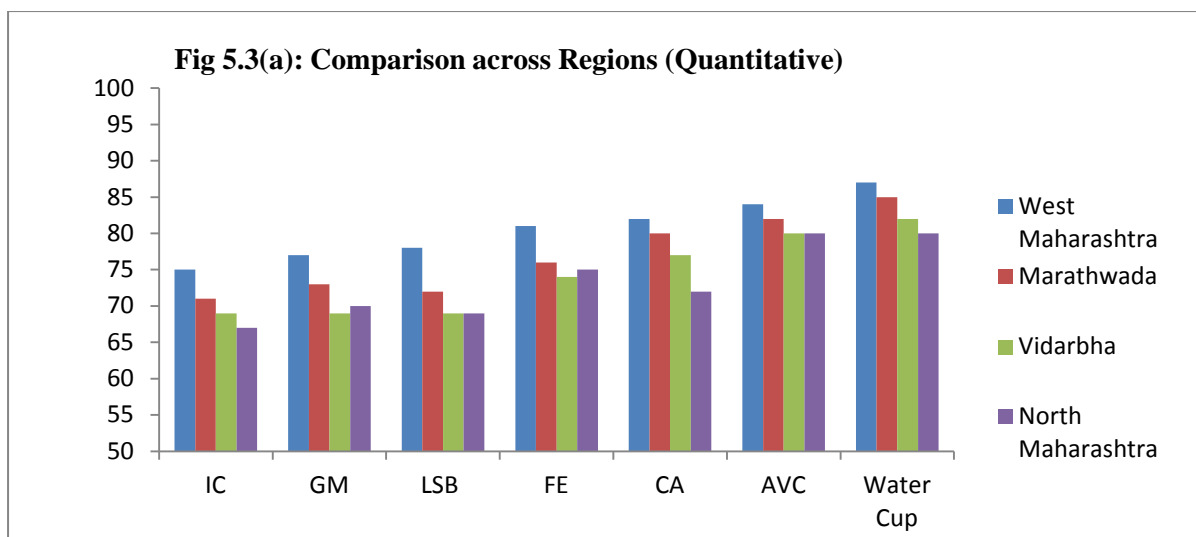
The data was collected from four different regions of Maharashtra state namely West Maharashtra, Marathwada, Vidharbha, Uttar Maharashtra. The following table depicts the overall perceptions of the respondents from these regions on different aspects of *Manasandharan*.

Table 5.3(a): Comparison across Region – Quantitative

(West Maha. (N-249), Marathwada (N-253), Vidarbha (N-278), North Maha. (N-84)

The numbers in cells represent the mean raw scores converted to percentages obtained by the respective groups on 'Amchya Gavabaddal(आमच्या गावाबद्दल)'. It represents the average perception of the respective groups towards each aspect of Manasandharan' in the present population under study.

Areas	West Maha	Rank	Marathwada	Rank	Vidharbha	Rank	North Maha	Rank
IC	75	6	71	6	69	4	67	6
GM	77	5	73	4	69	4	70	4
LSB	78	4	72	5	69	4	69	5
FE	81	3	76	3	74	3	75	2
CA	82	2	80	2	77	2	72	3
AVC	84	1	82	1	80	1	80	1
Water Cup	87		85		82		80	



In the above table, we see a similar picture for all the regions with respect to their perception about *Manasandharan* in their villages. Here also, the highest rank obtained by an Adaptive/Vibrant village followed by the work commitment to attain it. Such commitment seems to have created a feeling of optimism and a feel of being in control of the change processes. The availability of required selfless leadership and the groups' willingness to act towards the community goal gets an overall fourth or fifth rank in this perception hierarchy. However, inclusion again remains at the sixth/lowest rank in the perception of *Manasandharan* across regions.

If we compare the regional performances with each other, West Maharashtra seems to be significantly ahead of all other three regions in all aspects of *Manasandharan*, followed by Marathwada as a close second. It is followed by Vidharbha in third place, Uttar Maharashtra remaining at the fourth place for all the aspects of *Manasandharan*. When the scores were separately calculated for their mind set and efforts directed only towards water-cup competition (on the basis of the same tool), the level of *Manasandharan* for this aspect seems to be very high (> 80) for all the regions but with same descending regional performance pattern.

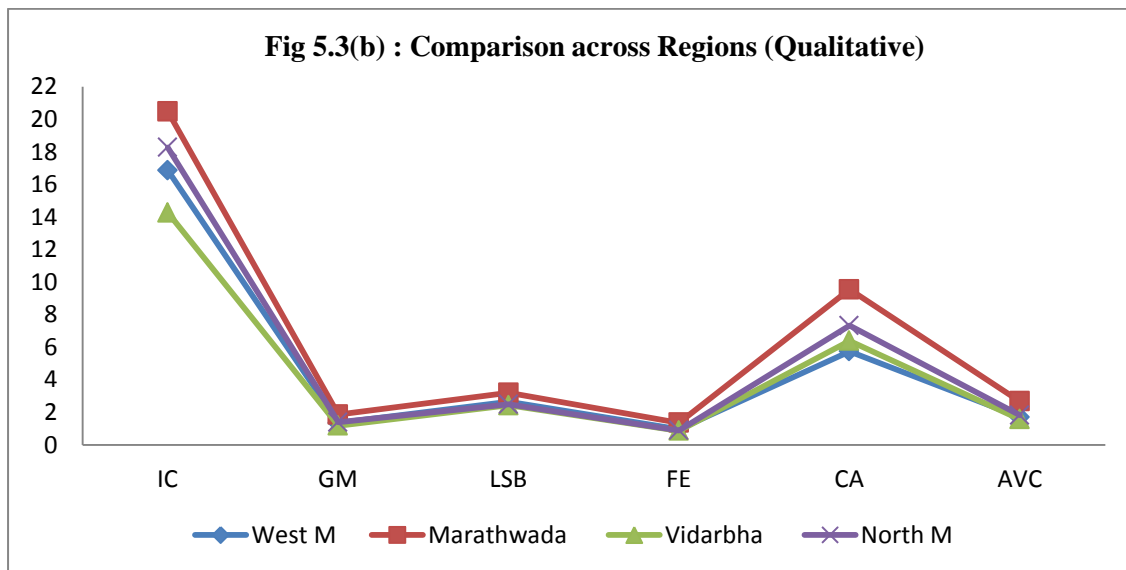
❖ Qualitative Analysis

Table 5.3(b): Comparison across Region – Qualitative

(West Maha (N-84), Marathwada (N-82),Vidarbha (N-83),North Maha (N-18)

Occurrences for *Manasandharan* factors in open ended responses

Themes	West Maha		Marathwada		Vidarbha		North Maha	
	Occ.	Mean	Occ.	Mean	Occ.	Mean	Occ.	Mean
IC	1417	16.87	1619	20.49	1227	14.27	329	18.28
GM	114	1.36	148	1.87	102	1.19	25	1.39
LSB	223	2.65	263	3.20	210	2.44	45	2.50
FE	81	0.96	108	1.37	75	0.87	16	0.89
CA	483	5.75	755	9.56	550	6.40	132	7.33
AVC	144	1.71	212	2.68	136	1.58	33	1.83
FC	339	4.04	473	5.99	301	3.50	72	4.00



It is observed that in the qualitative analysis Marathwada takes the lead position on all aspects of *Manasandharan*. The second place is secured by North Maharashtra in almost all aspects with more lead in ‘Commitment to Action. West Maharashtra has secured the third place and Vidarbha is at the fourth place.

Discussion: West Maharashtra being predominantly ahead in the physical/ material development scenario as compared to other regions is a stated fact. Vidarbha also has been blessed with

natural resources like cotton as cash crop and a very fertile soil. The vice versa is true for Marathwada as per the available government reports. Also, WM has a long history of ‘Cooperative Movement’ through its sugar lobby and milk federations which have paved a ground for the possible ‘Manasandharan’ as reported in the overall, general impressions covering questionnaire. On the other side, Marathwada has been suffering from intense droughts since years. It has vehemently participated in SJWC with the strong desire to arrest the severing conditions of water scarcity. Their long and emotionally charged narrations captured through the qualitative instruments indicate how strongly the villagers have been immersed in the competition emotionally. This might be the reason why the frequencies of their expressions for almost all the aspects of *Manasandharan* has superseded those captured in the other regions.

5.4 Gender wise Analysis:

❖ Quantitative Analysis

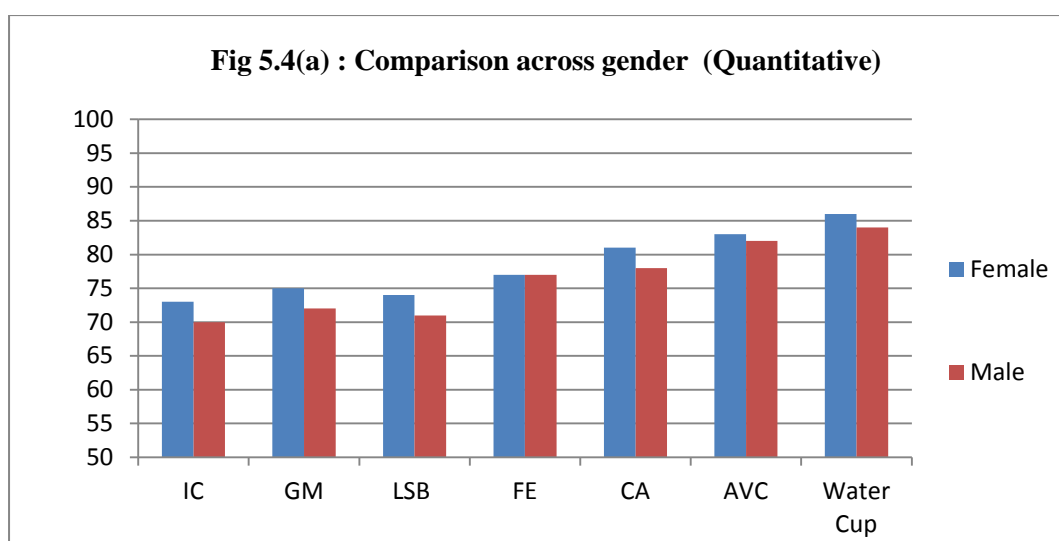
During the water cup competition, the inclusion of different social groups was warranted as a part of the process. ‘Water’ is generally considered to be the responsibility of the women/homemakers. SJWC had made it mandatory to send at least two women in the training team from each village for qualifying into the competition. Also, the participation of women in the overall ‘Shramadaan’ was essential. Considering gender as an important variable in all this process, gender differences with respect to *Manasandharan* were also explored.

Table 5.4(a): Comparison across Gender– Quantitative

(Men (N-451), Women (N-413), Total (N-864))

The numbers in cells represent the mean raw scores converted to percentages obtained by the respective groups on ‘Amchya Gavabaddal (आमच्या गावाबद्दल)’. It represents the average perception of the respective groups towards each aspect of Manasandharan’ in the present population under study.

Areas	Women	Rank	Men	Rank	Total	Rank
IC	73	6	70	6	72	6
GM	75	4	72	4	73	4
LSB	74	5	71	5	73	5
FE	77	3	77	3	77	3
CA	81	2	78	2	79	2
AVC	83	1	82	1	82	1
Water Cup	86		84		85	



The table shows a similar pattern with respect to the ranking of *Manasandharan* as seen for earlier parameters for both genders. However, it is indicated that women display a comparatively better perception about *Manasandharan* at the village level for all aspects except 'feeling empowered' and 'adaptive vibrant community'. This shows that women have genuinely thought over the various aspects of *Manasandharan* proactively, though their contribution/role in decision making and leadership is at times compromised socially.

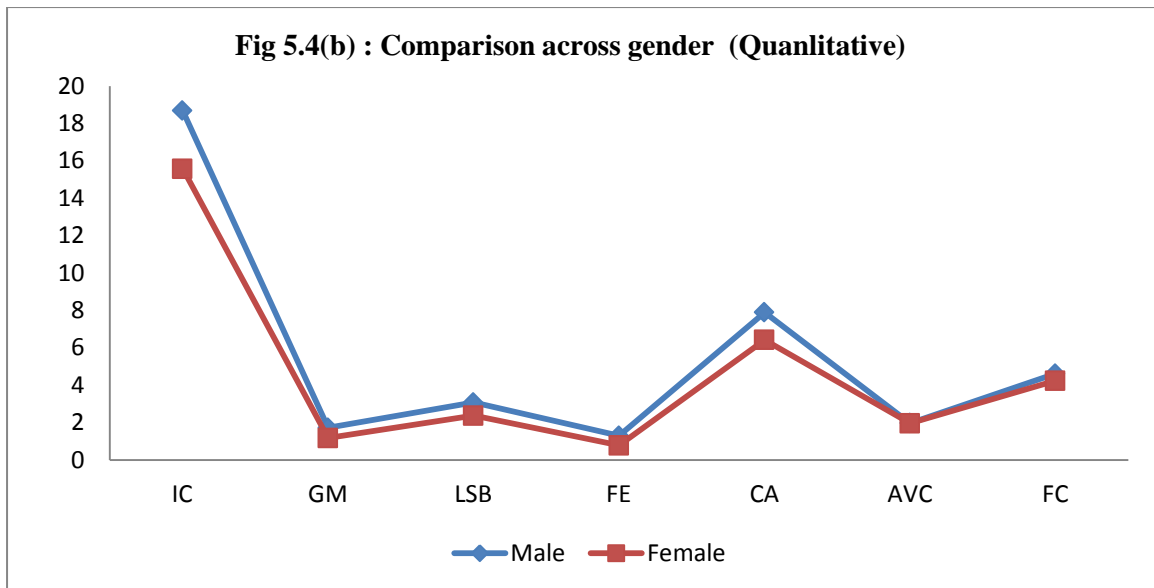
❖ Qualitative Analysis

Table 5.4(b) : Comparison across Gender– Qualitative

(Men (N-140) ,Women (N-127), Total (N-267))

Occurrences for *Manasandharan* factors in the open ended responses

Themes	Women		Men		Total	
	Occ.	Mean	Occ.	Mean	Occ.	Mean
IC	1977	15.57	2615	18.68	4592	17.19
GM	148	1.17	241	1.72	389	1.45
LSB	301	2.37	430	3.07	731	2.74
FE	99	0.78	181	1.29	280	1.05
CA	815	6.42	1105	7.89	1920	7.20
AVC	249	1.96	276	1.97	525	1.96
FC	539	4.24	646	4.61	1185	4.43



This analysis of the frequency of expressions regarding the aspects of *Manasandharan* shows that there is hardly any difference across genders except for a considerable (but small in value) lead of men on the aspect of Inclusion- Cohesion. This indicates how much involvement the villagers had in the whole process irrespective of the gender. Both men and women have expressed freely and in similar ways regarding all the aspects of *Manasandharan*, which is a positive sign of changes in the social mind sets.

Discussion: SJWC gave women a very unique and strong platform to contribute to the larger good of the whole village. Thus their perceptions and narrations indicate their deep involvement and positivity with respect to the whole process of *Jal* and *Manasandharan*. The women in villages who otherwise are inhibited to participate in such ‘so called masculine’ tasks have shown their motivation and calibre to stand side by side with their men in accomplishing the superordinate goal which has been reflected in their scores on quantitative as well as qualitative measures.

5.5 Village Size wise Analysis :

❖ Quantitative Analysis

Village size was the third dimension considered for analysis. There were hundreds of villages that participated in water cup since 2016. Some of them were as small as 500 in populations while some were more than 5000. It was hypothesized that there would be some role of the population size (village size) in the success/failure in the *Manasandharan* process, considering that smaller villages may have more homogeneity in terms of social groups and vice versa. For

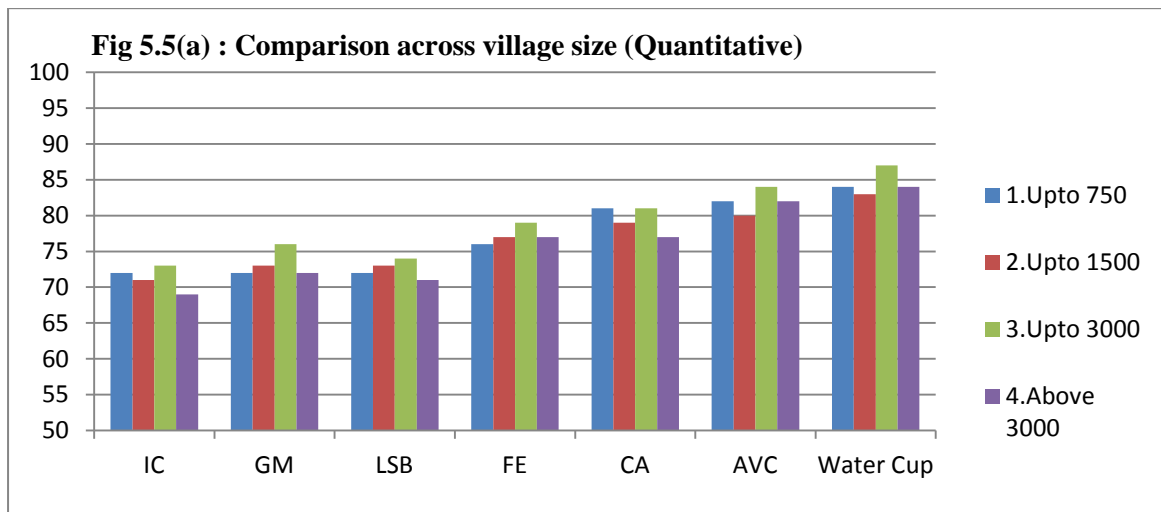
this the 45 chosen villages were categorised into four groups for analysis. The basis for categorisation was taken as given in the table.

Table 5.5(a): Comparison across Village Size – Quantitative

(Up to 750 (N-178), Up to 1500 (N-245), Up to 3000 (N-224), Above 3000 (N-217))

The numbers in cells represent the mean raw scores converted to percentages obtained by the respective groups on ‘Amchya Gavabaddal (आमच्या गावाबद्दल)’. It represents the average perception of the respective groups towards each aspect of Manasandharan’ in the present population under study.

Areas	1.Upto 750	Rank	2.Upto 1500	Rank	3.Upto 3000	Rank	4.Above 3000	Rank
IC	72	4	71	6	73	6	69	6
GM	72	4	73	4	76	4	72	4
LSB	72	4	73	4	74	5	71	5
FE	76	3	77	3	79	3	77	2
CA	81	2	79	2	81	2	77	2
AVC	82	1	80	1	84	1	82	1
Water cup	84		83		87		84	



The table shows a similar pattern with respect to the ranking of Manasandharan aspects to that seen for the earlier two parameters namely region and water cup performance. While comparing the Manasandharan across these four groups of village size, no specific difference was found on any of the Manasandharan aspects for these groups. This means that the village size has almost no role in determining the Manasandharan as a whole in any specific way. However it was

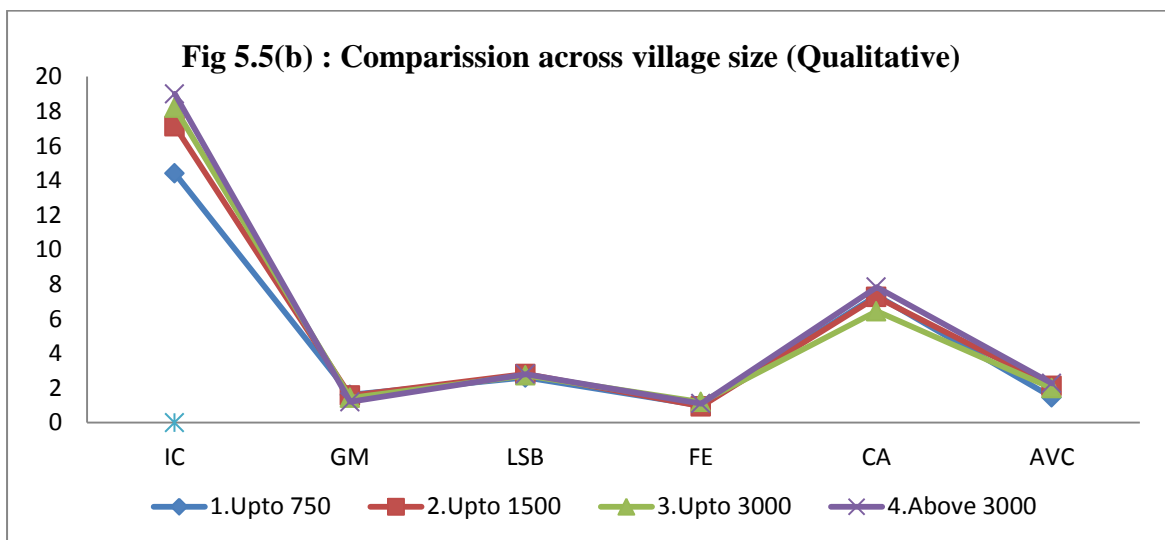
mentioned in many bigger villages by the respondents that they had been allowed to send more number of trainees (proportional to village size) to the initial training, they would have been able to spread the motivation more efficiently to the varied population groups in their village.

❖ **Qualitative Analysis**

Table 5.5(b): Comparison across Village Size – Qualitative
 (Upto 750 (N-61), Upto 1500 (N-77), Upto 3000 (N-70), Above 3000 (N-59))

Occurrences for *Manasandharan* factors in the open ended responses

Themes	1.Upto 750		2.Upto 1500		3.Upto 3000		4.Above 3000	
	Occ.	Mean	Occ.	Mean	Occ.	Mean	Occ.	Mean
IC	879	14.41	1319	17.13	1273	18.19	1121	19.00
GM	98	1.61	120	1.56	100	1.43	71	1.20
LSB	159	2.61	216	2.81	191	2.73	165	2.80
FE	60	0.98	72	0.94	83	1.19	65	1.10
CA	448	7.34	559	7.26	451	6.44	462	7.83
AVC	89	1.46	163	2.12	139	1.99	134	2.27
FC	260	4.26	386	5.01	277	3.96	262	4.44



A similar picture to that of the quantitative analysis is seen for the aspect of village size. There is no set pattern except for Inclusion-Cohesion aspect which either indicates direction to ‘small-big’ or vice-versa for the frequency of expressions of the respondents. For Inclusion-Cohesion aspect, however there is a steady rise in the number of responses from the smaller to bigger size villages. This is little surprising as it was previously thought that smaller village might have better inclusion-cohesion as the community in a smaller village is much homogenous than the bigger villages. However, just as the perceptions about the village do not indicate any difference across differently sized villages, their perceptions about the SJWC also show no such trend/pattern across the village size.

Discussion: Since there has been no particular trend in either of the types of assessments, it seems that village size does not really matter for strengthening or weakening of the *Manasandharan* at the village level. The expressions were captured from the narrations of the more or less number of representative sample residents from each of these villages, which is also the reason that the size of the village really did not matter.

5.6 Water cup performance and aspects under study

Table 5.6 : Relationship between Village Size and SJWC Performance (N-45 Villages)

Correlations								
		WATER CUP	IC	GM	LSB	FE	CA	AVC
Village Size	r	-0.023	-0.2	-0.108	-0.124	-0.019	-0.116	0.009
	Sig	0.88	0.188	0.48	0.419	0.904	0.447	0.954
SJWC Performance Scores	r	.730**	.685***	.691***	.637***	.523***	.751***	.653***
	Sig	0.00	0.00	0.00	0.00	0.00	0.00	0.00
***. Correlation is significant at the 0.001 level (2-tailed).								

To see the relationship between water cup performance and the different aspects under study, Correlation values were obtained for *Manasandharan* with SJWC scores and Village population. A significant and high correlation value is obtained for the relationship between all aspects of *Manasandharan* and SJWC scores. This means that higher the performance of the village in SJWC, more the possibility of that village getting higher score on *Manasandharan*. However no

relationship was seen between village size and SJWC score or *Manasandharan* both. This indicates that there is no prominent role of the village population in either getting a good score in a water cup competition or in triggering the process of *Manasandharan*.

It is already been evident that there is a regional dominance in SJWC scores and that of *Manasandharan* inclining towards West Maharashtra. The possible reasons are ranging from a comparatively better historical development dividend and political advantage, up to proximity with developed cities like Pune, Kolhapur, and Mumbai etc. Another reason is that Marathwada being a drought prone region, the returns experienced by them from their work in water cup competition have not been so satisfactory due to the absence of sufficient rainfall for last three consecutive years, lowering down the overall psychological tempo and actual work output during the competition. The same applies to the third-place acquired by Vidarbha in the overall rank though it is closer to Marathwada.

5.7 The psycho social impact of water cup competition (*Manasandharan* in the villages)

The whole idea of introducing competition for making people realize the power of their organized efforts through the issue of 'water', which is a completely neutral topic from a socio-political angle, with life-line importance; is novel and unique. It is therefore very essential to see to what extent the competition has contributed to all the aspects of *Manasandharan*, whether this trigger has led to organizing and mobilizing people, making them 'goal oriented', more 'inclusive- cohesive' with a 'feeling of empowerment'; to solve their common problems.

A stepwise regression was applied keeping *Manasandharan* as the criterion variable while the score of the villages in the SJWC as the predictor variable to find out the answer to this question objectively.

Table 5.7: Step-wise Regression

Criterion V.	Predictor variable	R2 (%)	β	SE	p
WC	Paani WCC Score	53.30	0.27	0.04	0.00
	Region Level				
	Village Population				
IC	Paani WCC Score	46.90	0.16	0.03	0.00
	Region Level				
	Village Population				
GM	Paani WCC Score	54.40	0.16	0.03	0.00
	Region Level		2.23	0.90	0.02
	Village Population				
LSB	Paani WCC Score	47.90	0.17	0.03	0.00
	Region Level		2.64	1.09	0.02
	Village Population				
FE	Paani WCC Score	33.80	0.11	0.03	0.00
	Region Level		2.00	0.98	0.05
	Village Population				
CA	Paani WCC Score	56.04	0.26	0.04	0.00
	Region Level				
	Village Population				
AVC	Paani WCC Score	42.60	0.18	0.03	0.00
	Region Level				
	Village Population				
Total score	Paani WCC Score	47.10	0.17	0.03	0.00
	Region Level				
	Village Population				

Significance (p=0.00 ,0.02 ,0.05)

The highest contribution of SJWC within the different aspects of *Manasandharan*, seems to be for ‘Commitment to Action’, after which comes ‘Group motivation for superordinate goal’. The third place is occupied by ‘leadership through selfless behaviour’ followed by ‘inclusion-cohesion’ and ‘adaptive vibrant community’. The least influenced aspect seems to be ‘feeling of empowerment’ which is very natural as this aspect is very subtle which builds gradually over a period of time after successive positive gains experienced directly/ indirectly from any kind of endeavour.

This shows that the higher the score received by a village in water cup competition, the more the probability of that village of getting higher scores on *Manasandharan*. In other words, whatever people are doing to get a good score in water cup competition is indirectly strengthening the *Manasandharan* aspects in a significant manner during that period.

Chapter 6

PSYCHO-SOCIAL IMPACT ASSESSMENT of Community building

The mandate for this study was to assess the impact of the psycho-social processes of community building (मनसंधारण) of participating villages in the Satyamev Jayate Water Cup Competition. This report began by presenting an articulation of the processes in the building of a community for collective action. Then set of tools were developed to measure those processes, both by responses to the objective questionnaire and in discussions that were later analysed using qualitative tools. In this chapter, a consolidated assessment is presented based on the analysis given in earlier two chapters. Before presenting the assessment it is essential to go through the key learnings from four years SJWC.

- The SJWC has generated a significant positive momentum in the state galvanising village communities to take charge of their own development, shunning dependence on outside agencies to intervene. This is a huge achievement. The participation of villages from remote areas of many districts is one testimony to this momentum of hope and empowerment.
- PF's training module and its post-training follow-up mostly by facilitating teams placed at district and taluka towns have set up a new benchmark of how a short duration training of 3.5 days can be a catalyst in transforming, first the mind set of trainees and then later through them, of communities. The training module should be a model for many other development agencies.
- PF has creatively used the power of positive communication for facilitating change processes. While there has been abundant literature on 'communication and behavioural change', PF's efforts in this field over the last four years need to be studied in depth to draw lessons. Its use of website, social media and short films are all noteworthy and offer huge scope for learning.
- One evident result of the effective and focussed training and communication strategy has been recall of key messages by the trainees and the villagers. In the study, recall of messages have documented through the qualitative data and also mapped their occurrences in which the HP villages have an upper hand over the LP villages.
- PF's work with communities has brought forward important lessons in convergence, resource mobilisation, and building new alliances. There are a number of examples of villagers raising huge resources from corporates, temple trusts, and wealthy non-resident villagers, well-

wishers in cities by enrolment as *Jalamitra* and among villagers themselves besides tapping funds from existing government schemes. PF's movement has brought many urban citizens back to villages and sensitized them towards water scarcity. New alliances have thus been formed across age groups, communities, and denominations all geared towards making villages drought-free.

- The *Mahashramadaan* organised on May 1, has been a creative intervention that has energised many stakeholders and getting their involvement in the PF activities. The May 1 event has achieved a semblance of festivity and bringing dignity and celebration to the notion of voluntary labour *Shramadaan*.
- PF has been successful in demystifying the 'watershed technology' and reaching the core lessons of this technology first to trainees and then to villagers. This scale of reaching the last mile should be acknowledged as a true watershed in the history of watershed development efforts in the country. In the study it was found that many villagers came to know for the first time small and simple technologies of conservation and knowing the use of such conservation measures. For ex. What is contour mapping? What are deep trenches? Where can one have continued trenches? Should those be deep? Why inlet - outlets are necessary for ponds? These are simple measures but were never a part of vocabulary of many villagers. Even simple things like '*Shivar feri*'. Where water enters into and exits from the village were not known to large numbers. SJWC helped in disseminating these important messages to large number of. Villagers.
- The use of latest, user friendly and appropriate technology such as an App for uploading soil conservation work is another interesting feature of the SJWC. It has provided almost a real-time monitoring of all activities across a vast geography. There are lessons to be learnt from this innovation.
- Significant financial resources were raised by village communities, PF might like to examine in detail process related to accounting of funds raised, its record keeping and transparency in reporting. A loose financial record keeping can be potentially harmful in continuing the momentum generated through SJWC.

6.1 Community building is indeed the necessary foundation

The SJWC intervention gave emphasis on the process of community building with a clear belief that it is indeed the cornerstone of all subsequent interventions. Only and only if communities unite for a common cause aptly titled as *Manasandharan*, then watershed activities can happen. This assessment has validated the articulation. The performance as measured by the SJWC team at the end of the voluntary labour of 45 days and the scores obtained by villages on the indicators defined by the PF team have a strong correlation with the scores on our assessment. Villages that obtained either high or low performance (HP or LP) scores in SJWC (2017 or 2018) have reported exactly similar results on the measurement tools used in the JPIP study. It is to be noted that all the field investigators were blind about the performance ratings of the respective village during field work. Comparison of HP and LP villages across ALL factors of *Manasandharan* report similar trends. All HP villages scored high on all six factors such as inclusion, commitment to work action etc.

The marking system of the SJWC is transparent and is known to each and every participating village community. Details of this are clearly communicated in the training programme. The marks are given to X and Y activities such as number of cubic meters of work done. The evaluation is done by a peer group of assessors. For a village, that is not cohesive or does not muster enough resources to contribute to the so called ‘physical achievements’ cannot hope of scoring marks as per the marking system. A corollary therefore is that unless and until, there is a minimum effort for coming together, the physical targets are impossible to achieve. Designed set of tools measured those intangible factors. There is a clear link between the intangible processes that support later manifestation into physical outputs that are evaluated and given rankings.

Researchers observed similar relationship in villages that were ranked low. There is a significant positive correlation between scores on *Manasandharan* and the performance of the villages in the water cup (Table 5.6). This suggests that the higher the score received by a village in water cup competition the more the probability of that village also getting higher scores on *Manasandharan*.

Women in this data have reported high scores on most of the factors including Inclusion and Cohesion (IC). Women thus, the most affected have been at the forefront of change processes; however their role in leadership positions needs to be strengthened.

6.2 The Interrelationship between Watershed Development and Community Building

While the data analysis has shown a clear relationship between the intangible process of community building and the success in the competition, a related and important question is- How sustainable will be the drive and motivation of the community?

During the study, researchers observed that there is a complex interplay of internal and external factors that equally impact the drive, cohesion and motivation of the communities.

The data on irrigation and agriculture status of the villages was obtained. Triangulation of that information with the psycho-social factors suggests that villages with high or medium water scarcity and low or nil irrigation facilities have reported a high score on *Manasandharan* as also similar performance in the SJWC. Clearly where there is desperate need, it acts as a positive trigger for the community to come together and perform in the SJWC. Villages with some or adequate irrigation assured with canal water have not performed well in the SJWC and have low scores on psycho-social tools.

SJWC has acted as a motivating factor for the communities to come. This is not to say that communities had no occasions to work together. Traditionally there have been social, religious and other events that bring people together. For instance, many villages have *Saptah*, where people come together to chant *bhajans*. Similarly some villages have annual wrestling and sports events. Some villages have long traditions of annual temple festival. SJWC has some more features that have the possibility of fostering inclusion of ALL not just as spectators but active participants irrespective of age caste gender religion etc. SJWC expects all to contribute voluntary labour; it is long duration 45 days and preparation time that extends more than three months. Competition and substantial prize money adds to festivities and enthusiasm. Thus the SJWC format builds on existing social cohesion and where ever it is weak provides a platform to foster inclusion.

Two additional factors seem to have critical influence on the output-outcome-impact cycle. While work done during the SJWC is certainly a concrete output, the impact of those efforts is certainly going to take some time to manifest. Researchers understand that PF has commissioned a separate study to assess the impact of the SJWC on below ground aquifer as also water table in the wells in villages. That assessment will indicate tangible impact on the ground water level and

availability of water. Two other factors seem to be directly impacting at least the process of community building. Interestingly, both these factors are beyond the control of the community.

Annual rainfall (an event after the SJWC) and elections to the local *Gram Panchayat* (either before or after the SJWC) have both positive and negative influence in strengthening or eroding the *Manasandharan* as also performance in the SJWC. A good rainfall results in adequate water storage in treatment areas and village communities see concrete results of their efforts in the SJWC and thereby further resolving to work towards the vision of a drought free village. A converse situation can result in a negative spiral. Elections to local bodies fought on party affiliations lines can potentially bring forth to surface tensions and divisive tendencies thereby eroding all that is built for SJWC. Matured leadership can positively handle the same challenge. In all the above situations, thus predicting a certain outcome of an intervention might be slightly premature.

6.3 Cause and Effect?

There are numerous possibilities how the community building processes will play out in the journey of the community. It is indeed hazardous to make a guess of cause and effect relationship as there are many imponderables.

For instance,

- A good mobilisation of community can lead to excellent work on ground. A delayed or inadequate rainfall however might demotivate the community to make any further efforts for water conservation and make it complacent the following year.
- In the same example, the converse is also possible. A demotivated community can also be led by a firebrand leader who will ensure that conservation efforts continue irrespective of rains. And a good monsoon in the third or fourth year might prove to be extremely beneficial and boost the morale of everyone.
- And in the same example, if all other things remain the same and there are elections that vitiate the village atmosphere, all good work can be eroded if the panel is not selected in a constructive manner (with minimum opposition/ nuisance).
- The SJWC certainly acts as a trigger to come together and that is reflected in the *Manasandharan* scores. A high score in the SJWC coupled with eventual benefits could potentially further strengthen communities' will and motivation to come together, but as it has been pointed out the benefits of SJWC can potentially be lost if adequate care is

not taken in situations such as elections contested on political lines and or lack of transparency in using award money. Thus cause and effect and what influences whom and how long are clearly very complex relationships. To that extent each village has a different story of *Manasandharan* as we have attempted to show in our three case studies.

6.4 Size of the village and presence of social capital

In this assessment, researchers did not find any significant correlation in the size of the village and the extent of community building. In other words, irrespective of small or large size of the population, it was possible for the village to build a momentum for community action. This was against the intuitive logic that small communities are more compact and therefore are likely to have more cohesion and ease of collective action. Researchers obtained information on the history of collective action in the village before SJWC. The assumption was that a village that has more occasions in the past for coming together (festivals, sports, other activities) is likely to demonstrate a better performance in the psycho-social assessment as also SJWC. It did not.

Size of the village (less than 750 or more etc.) does not seem to influence the *Manasandharan* nor correlates with the performance in the SJWC. Similarly, the social capital of the village measured in the village information (before participation in SJWC) does not seem to have a direct relationship with either the performance and or the *Manasandharan*. A small village might be more cohesive. On the contrary a large village might benefit from its network (presumably also large) of well-wishers outside the village to draw more physical, human and financial resources for labour.

To conclude, a village struggling with acute water scarcity and inadequate irrigation facilities, if supported with appropriate training interventions, does report a positive and robust *Manasandharan* process enabled by a core team of selfless leadership group. External factors such as adequate rainfall and bipartisan electoral politics can further strengthen the will of the communities to become a self-driven village.

In the concluding chapter, we present some ideas that we gathered during the conduct of this study.

Chapter 7

Beyond Water Cup Competition

This report has focused on the specific mandate of assessment of the process of community building (मनसंधारण) in the selected 45 villages. In the process of this study, JPIP team began first by identifying six anchors that lead to the strengthening of the process of coming together. Thus our first task was to respond to the question: what is community building (मनसंधारण)? Having addressed this task, the study attempted to measure Community building in the study villages. The data gathered on both quantitative and qualitative measures were analysed. This analysis thus addressed the next question: How to measure community building (मनसंधारण) processes?

After the 'what' and the 'how' question, the next logical question in sequence would be 'what next' or 'so what'? The spirit of response to this question would be in the nature of explorations and pointers for a future course of action. The audience for these responses would not be confined to Paani Foundation but a range of other stakeholders consisting of number well-wishers from the donor community, government representatives, policy makers, civil society activists and aware citizen groups in and outside Maharashtra.

Keeping in mind the audience, this study venture to make some suggestions and offer a few ideas that could be considered by the leadership of Paani Foundation. The suggestions are not in order of importance.

7.1 Leading by selfless behaviour: A new model of citizen leadership for villages

Leadership is likely to assume more central and critical role when villagers decide to move onto sustainable usage of water. The task of the leadership in those situations is lead 'By example'. As possible conflicts might arise, all will need to be convinced of water usage and crop planning and this has to be demonstrated and implemented by consensus. Such processes though not impossible are going to be tedious and challenging. Only a group of enlightened leadership within the village can manage these tensions and work out norms of governance. PF might thus have to spend considerable time on leadership training aspects for the SJWC version 2.

One of the many important contributions of Paani Foundations' work in the last four years is its model of facilitating what we call a "developmental leadership". It is in its definition at least outside the purview of 'political leadership' that draws its strength from electoral politics that is at the core of the functioning of our democratic society. However, there are very few 'non-political', 'a-political' leaders that one encounters in the development space to whom one can look up to for inspiration and motivation. The likes of Anna Hazare, late Vilasrao Salunke, Father Bacher, Rajendrasinghi, Elaben Bhatt, Deep Joshi, Late Dr. V. Kurien, Medha Patkar, Late Baba Amte and their sons Vikas and Prakash are a few notable examples. Each one of us draws immense inspiration from these stalwarts for their valuable contribution. Names of 'development leaders' like Popatrao Pawar of Hivre Bazar are now known to many in rural and urban areas of Maharashtra. However, the list of such illustrious personalities probably might not cross one hundred, at best two or three hundred in the entire state of Maharashtra.

What Paani Foundation's work seems to have achieved, at least specifically during the water cup intervention, is to bring to the forefront a large cadre of village based, strongly routed 'development leaders'. We hate to call them 'barefoot' leaders, a fashion in the development fraternity to call grass-root workers as barefoot! The lead persons (or the development leaders) in most of the villages are ordinary citizens exhibiting a tremendous potential for leading social change in their 'own' villages. They present a splendid rainbow of occupations, educational backgrounds, marital status, vocational engagement, age, gender and so on. The diversity is fascinating and must be acknowledged as learning for all stakeholders interested in emulating the model.

The rainbow of lead persons consists of retired teachers, superannuated officers and *Jawans* from the Indian army and para-military forces, daughter-in-laws moving to a 'new' village, single women, officially elected representatives of the *Panchayat* in few cases, youths who ran libraries and sports club, progressive farmers, non-resident villagers returning to their villages from cities and towns after long years, college graduates both men and women and so on. The categories are multiple.

What is common in forty-five representative villages which have studied is the transformative impact of 3.5 days of training that was achieved for most of the participants. In our मनसंधारण

construct, we have elaborated in detail, the operational definition of one pillar of the construct namely 'leading by selfless behaviour'.

In field interactions, researchers came across at least two or three individuals, both men and women, who were assuming the role of change-agents in their respective villages. They were attempting to practise what they were 'taught' in the training sessions. Some of them had previously acquired party/ideological orientations/inclinations but for a majority of the lead persons, it was a new experiment and experience of leading by selfless behaviour and thereby enacting a live role of 'a-political', 'developmental leadership'. All of them faced scorn, neglect, criticism and attribution of motives. They had to negotiate conflicting situations, generate not just participation and enthusiasm but also substantive financial and organizational resources. The motivation had to be sustained before the commencement of श्रमदान and later for 45/50 days. The leadership role also involved planning-organising-reviewing and reporting responsibilities. While voluntary labour went on, the lead team of three to five persons had to plan for work for the coming days. Owners of land had to be convinced to 'allow' their lands to be 'used' for watershed activities and so on. There were gender-sensitive tasks. Women participated in huge numbers but in a few villages, women from some communities remained passive. They had to be cajoled. So also some members of different caste groups.

We can elaborate on many anecdotes that we heard in the villages. The key point is that Paani Foundation has provided a strong-solid platform to many aspiring individuals who care for their own village. Many of them do not have usual political aspirations-to-be a Panchayat leader, to contest election for the legislative assembly and so on. While we don't deny that such motivations might also be present, which is not unusual, the Paani Foundation has nurtured a cadre of grass-root development leaders who would become the torch-bearers of developmental initiatives in respective villages beyond the conduct of water cup competition. This is a massive achievement as the state of Maharashtra gains to benefit from hundreds of such community-rooted leaders, who have demonstrated their strength to mobilise communities for collective action. This invaluable social capital needs to be 'protected' so that it does not 'erode' over time for several reasons beyond the control of Paani Foundation's interventions. How to attempt this strengthening is a topic of deep discussion. Our contention here is to draw attention to the huge social capital now present across the state, thanks to the Paani Foundation interventions. A new model of 'citizen leadership' is certainly emerging across the state. Going ahead, Paani

Foundation needs to think strategically on how to build on this foundation laid as it embarks on a more ambitious agenda of water-livelihood and income enhancement. All its future plans should have this model of citizen leadership of development leaders at the core of its design of the interventions.

7.2 The Future of Water Cup Competition

2019 was the fourth year of the competition that invited a huge response from all the four regions. The leadership of Paani Foundation is thinking afresh and probably not keen to have 'more of the same' meaning to retain the same format of the competition, more villages, more districts and so on. While there is strong merit to this argument of having reached saturation (plateau?), we do see a possibility of some unfinished agenda that needs a couple of years before the current format of the competition is fully discontinued. The unfinished agenda, in our opinion, primarily arises keeping the community at the centre of this decision making. मनसंधारण is a continuous process, watershed development activities take a minimum of two to three years if not indefinite years. In the field interactions, JPIP team came across a large number of examples where a particular village took time to organize itself both as a community as also to fully comprehend and implement the building of structures. The trained team learnt on the job practising theories learnt in the training, resource mobilization especially financial contributions took some time to come, government programmes could not be leveraged in the very first year and so on. It took almost a year (1st year of competition) for the village community to equip itself for participation in the SJWC. We observed that thus many villages who continued to participate for consecutive years 'learnt' fast and 'improved' their performance, often qualifying as winners. Rain God, wherever supported, added to the motivation of the village community strengthening their belief in watershed treatment measures done with the 'ridge to valley' approach. To conclude, communities would benefit from a two or even three-year long lead time to attain the status of 'tanker-free' or 'drought free' village.

Therefore, it might be prudent to have a systematic closure of the current version of the water cup competition with clear communication to participating villages. For instance, specifically the Paani Foundation leadership could take a view and decide that henceforth 2020 and 2021 would be the last two years of the competition as per the current format. Such clear communication and timeline would give adequate chance to those who participated in later years. Those who joined

in 2016 or 2017 could consolidate their gains. A slow but clearly articulated and communicated closure/withdrawal plan would benefit everyone. An abrupt discontinuity might run into the risk of losing significant gains achieved in the first four years.

7.3 The Challenge of Demand Management

The challenges for proposed SJWC–Version 2.0 are going to be more complex. The PF leadership is probably aware of those complexities. The first and foremost challenge is to work on the demand side management of available water. Crop- planning (*पीक नियोजन*) and moving from one-year, twelve-month crop cycle to eight months crop cycle has not just agro-ecological (technical) considerations but also involves many sensitive political-economy dimensions. We heard several times that communities now need to focus increasingly on demand side management. It is not sufficient to augment the supply of water; this has to be necessarily accompanied by judicious use of water. The challenge of working with the communities on first studying the demand and then themselves deciding on the priorities is fraught with many consequences and possible tensions. The magnitude of this challenge is enormous, to say the least. In our case study of the village Nhavi Budruk of District Koregaon, the impending challenge is clearly visible.

A demand side view of water conservation is bound to lead to conflicting demands. Decisions that are contentious need to be taken. If there is a choice between water guzzling crops like sugarcane and say vegetables, what cropping pattern gets adopted. The issue of land ownership might come to the surface. Does drinking water and water for sanitation purpose get priority over usage for other activities? Do women need to get preference over demand for water for agricultural operations? How are these decisions arrived at? The preparation of water budget and awareness about water as a resource is the first step. In many of the Paani Foundation intervention villages, communities have indeed prepared water budgets. The journey, however, has just begun. There is a long road ahead from preparing the budget to being literate (water literacy) about the judicious use of water, planning for such use and finally the most critical step of practicing and implementing what has been collectively agreed.

In this process, two major interventions might become necessary. The first is necessarily the ‘technical inputs’ related to agriculture, soil-health management, usage of low-inputs agriculture,

appropriate irrigation practices, availability of new crops/vegetables/fruits and similar allied activities to supplement agriculture, awareness about consumer demand, literacy about market prices and so on. This opens up a completely new frontier.

While the above, though is a new frontier, is doable. Communities have deep insights into many of these domain areas. There is latent knowledge present within. There are a few models and success stories to emulate from and adapt to a new regime of water management. This is not an impossible task.

What would be a herculean task is to continue with this paradigm keeping the community building (मनसंधारण) intact. There are processes that are likely to put enormous pressure on the cohesion and inclusion aspects of मनसंधारण. We again would like to refer to the tables/data presented in the case study of Nhavi Budruk. If that village has to consider a different model of water usage, necessarily farmers cultivating sugarcane have to be convinced of alternatives. These could be either partially giving up sugarcane cultivation or switching to other crops or as the villagers decided to enforce drip irrigation for sugarcane. Alternatives to sugarcane might not be perceived to be sufficiently lucrative nor are those considered labour-free.

The demand side management would put pressure on the leadership. They might need to intervene and to mediate. The idea of leading by selfless behaviour is put to real test. We have explained the construct of group motivation for superordinate goal. If the superordinate goal is to be a 'water-just' village and therefore drought-free forever, it would demand certain new behaviours from the communities. The work of the late Dr. Vilasrao Salunkhe was principally focused on the equitable use of water. Suffice to note here that when the study team visited his village Naigaon in Purandar taluka of Pune district, about 25 km outside Pune city for the pilot study, there was hardly any mention of his work. Sadly, his teachings were not seen to have translated on the ground. As the leadership of Paani Foundation embarks on 'water cup version 2.0', the proposed intervention would probably also require deeper understanding on 'collective action for sustainable living' and might necessitate revisiting and evolving 'मनसंधारण version 2.0'. It might also involve revisiting the training strategy, communication emphasis, deeper appreciation of societal fissures and of course motivating role models and examples where even in terms of complexities, workable solutions have been achieved. Jnana Prabodhini's Institute of

Psychology would be keen to be a part of this thinking process with Paani Foundation's leadership.

7.4 Need for *Manasandharan* Version 2.0 (मनसंधारण 2.0)

Community building is a dynamic process that needs continuous and careful nurturing. Just as plants and trees need careful watering, occasional pruning, appropriate fencing and above all watchful supervision of its caretaker, a community needs all of above in equal measure. Just as concrete-physical watershed structures get eroded over time, desilting takes place thus periodic maintenance is required. Weak links have to be strengthened. Only when such Operations and Maintenance (O & M) aptly called in Hindi as रखरखावट is planned and implemented, the physical structures stand a high chance to last long.

Replace 'मनसंधारण' in the above illustration. *Manasandharan* is an active interplay of feelings of hope and empowerment, positive optimism about being together for attainment of superordinate goals transcending – narrow individualistic boundaries, resourcefulness to harness human, financial and institutional energies and support not just from the immediate environment but from near and distant places – all these leading to a transformative and long-lasting change for all members of the community.

The dream of Paani Foundation and many like-minded individuals, groups, villages and institutions is to make our state of Maharashtra not just drought free but to dream and to actualize hundreds and thousands of vibrant, dynamic, energy-positive, चैतन्यदायी/चैतन्यपूर्ण villages. We hope and pray that this movement initiated four years ago reaches its grand vision. Jnana Prabodhini whose vision is (रूप पालटू देशाचे) 'Let there be transformation in our country', is delighted to be a co-traveller in this journey with Paani Foundation. We conclude this report on this note that this journey takes all of us to that cherished goal.

या माझ्या भारतदेशी*

एकजीव उमदे व्हावे जनजीवन गावोगावी
या माझ्या भारतदेशी सुखस्वप्ने फुलुनी यावी॥धु.॥

शेतात कोरड्या किसान गाळी घाम
पेरले उगवता हरखुन जाई भान
भरगच्च पिकाने पिवळे होई रान
बळिराजाची परि बाजारी धुळदाण
या भारतभूपुत्राच्या कष्टाला किंमत यावी॥1॥

ही सागरवेष्टित भूमी सुजला सुफला
रखरखीत झाली ओलावा ओसरला
बोडके नागडे होता डोंगरमाथे
आटले झरे अन् सुकलेले पाणोठे
या सुकलेल्या रानात रुजवू या जीवनराई॥2॥

गावात भांडती भाउबंद शेजारी
हे लोक निरक्षर कर्जाने आजारी
भाबडे भोळसट व्यसनांनी बेभान
मागास रिकामे शहरांचेच गुलाम
या गावकऱ्यांच्या गावी नवनवी उभारी यावी॥3॥

कान्हयाच्या गावी भरले गोकुळ होते
गोपांच्या मेळी गोवर्धनबळ होते
कालिया पूतना कंस संपले सारे
यमुनेच्या काठी स्वातंत्र्याचे वारे
हरिकथा अवतरो हीच माझिया गावी॥4॥

-प्रा. राम डिंबळे

Annexure – 1

List of Villages for the Study

Table I

Sr No	Region	Village	Taluka	District	SJWC Participation			
					2016	2017	2018	2019
1	Marathwada	Palaskheda	Kaij	Beed		√		
2		Kashidwadi	Kaij	Beed		√	√	√
3		Jaybhaychi Wadi	Dharur	Beed		√	√	
4		Kherda	Kalamb	Osmanabad		√	√	√
5		Dautpur	Ausa	Latur		√	√	√
6		Rui Dharur	Dharur	Beed		√		
7		Borphal	Ausa	Latur		√	√	
8		Pimpalgaon Dola	Kalamb	Osmanabad		√	√	
9		Nidhona	Phulambri	Aurangabad			√	√
10		Pokhari	Ambejogai	Beed		√	√	√
11		Massa Kh.	Kalamb	Osmanabad			√	√
12		Bhandegaon	Khuladabad	Aurangabad		√	√	√
13		Babhalgaon	Ambejogai	Beed			√	
14		Shepwadi	Ambejogai	Beed	√	√	√	√
15	West Maharashtra	Pokhar	Purandar	Pune		√	√	√
16		Kankatrewadi	Atpadi	Sangli		√	√	√
17		Jakhangaon	Khataav	Satara		√	√	√
18		Pare	Khanapur	Sangli		√		√
19		Pingli Kh.	Man	Satara		√	√	√
20		Khorochi	Indapur	Pune		√		
21		Khadakoni	Barshi	Solapur			√	√
22		Nandur Pathar	Parner	Ahmednagar			√	√
23		Rui	Koregaon	Satara	√	√	√	√
24		Dashmi gavhan	Ahmednagar	Ahmednagar			√	√
25		Kati	Indapur	Pune		√	√	
26		Telgaon	Uttar solapur	Solapur		√	√	
27		Kamat Shingave	Pathardi	Ahmednagar			√	
28		Nhavi Bk.	Koregaon	Satara	√	√	√	√
29	Vidarbha	Mirzapur	Akot	Akola		√		√
30		Musalkhed	Warud	Amravati		√	√	√
31		Kakaddara	Arvi	Wardha		√	√	
32		Kochi	Ralegaon	Yavatmal		√		

33	Vidarbha	Jambharun	Patur	Akola		√		√	
34		Dongargaon	Karanja	Washim		√		√	
35		Sasti	Patur	Akola		√		√	
36		Narsapur	Kalamb	Yavatmal			√	√	
37		Kherda kh.	Barshi Takli	Akola		√	√	√	
38		Fattepur	Devali	Wardha			√		
39		Pimpalgaon	Selu	Wardha			√		
40		Savarkhed	Morshi	Amravati			√	√	
41		Saheli	Arvi	Wardha			√		
42		Sawanga	Warud	Amravati	√	√	√	√	
43		North Maharashtra	Dhamdai	Nandurbar	Nandurbar			√	√
44			Dhamdod	Nandurbar	Nandurbar			√	
45	Khodamali		Nandurbar	Nandurbar			√		

Annexure – 2

JPIP Team for the Project

Table II

Sr No.		Name	Qualification
1	Project Director	Dr. Ajit Kanitkar	M.Com. Ph.D.
2	Project Co-director	Dr. Angha Lavalekar	M.A. Ph.D. B.Ed.
3	Institutional Guide	Prof. Subhashrao Deshpande	M.A. M.B.A.
4	Core Consultants	Shirish Joshi	M. Com, M.B.A.
5		Pramod Sadolikar	M.A. B.Com
6		Dr. Sujala Watve	M.A. Ph.D.
7		Dr. Pranita Jagtap	M.A. Ph.D.
8		Dr. Deepak Gupte	M.A. Ph.D.
9		Shivali Waichal	B.E.
10		Consultant for Qualitative Analysis Software	Dr. Hrishikesh Mehendale
11	Project Flow Consultant/ JPCSR Representative	Sumedha Kulkarni	B.E.
12	Statistical Consultant	Dr. Asawari Kanade	M.Sc. Ph.D.
13	Project Assistants	Kanchan Pande	M.A., PGDSP
14		Vinay Lande	M.E.
15	Senior Psychologists	Dr. Jyoti Kanitkar	M.A. Ph.D.
16		Dr. Jaya Badi	M.A. Ph.D.
17		Dhanashri Sowani	M.A.(NET)
18		Smita Nirgudkar	M.A.
19		Anita Deshpande	M.A.
20		Gauri Kulkarni	M.A.
21	Psychologists	Aparnagauri Phatak	C.A. PGDGE
22		Dipti Joshi	M.A.
23		Apurva Shaligram	M.A. PGDC
24		Neha Potfode	M.A. PGDSP
25		Yogita Maniyar	M.A.
26		Rameshwar Pawar	M.A.
27		Saeer Mulay	M.A.
28		Sujata Yadav	M.A.
29		Suraj Kaigude	M.A.
30		Laxman Mudhale	M.A. PGDSP
31		Shravani Deshpande	M.A. PGDSP
32	Other Trained Field	Manjiri Mhaskar	B.Sc.

33	Personnel	Ashwini Aursang	M.Com, M.A.	
34		Deepak Kale	M.Com.	
35		Dr. Anuradha Ohal	M.Sc. Ph.D.	
36		Rupali Marathe	B.A.	
37		Shubhangi Patwardhan	B.Sc.	
38		Asha Surve	B.A.	
39		Ashwini Thakkar	MSW	
40		Bharati Khasbage	M.A.	
41		Trupti Kulkarni	B.A.	
42		Nilesh Warudkar	MSW	
43		Sumedh Phatak	M.A.(NET)	
44		Sagar Jondhale	MSW	
45		Atul Birajdar	SY B.Com	
46		Pritam Nade	B.Sc	
47		Girish Joshi	B.E.	
48		Atharv Datar	B.Sc.	
49		Narayan Vaze	M.Sc.	
50		Pruthviraj Lingayat	TY B.Com	
51		Nachiket Panse	B.Tech.	
52		Aniket Patil	B.E.	
53		Chetan Kusalkar	MSW DTL	
54		Gopal Jadhav	B.Sc	
55		Somnath Waje	B.A.	
56		Asha Shinde	MSW	
57		Salman Mujawar	MSW	
58		Transcription support team	Rohit Kenjale	B.E.
59			Rohan Shinde	Engg. Diploma
60			Mohit Diwase	B.E.
61			Nikhil Sathe	HSC
62	Amol Neel		B.E.	
63	Trupti Khadilkar		M.Com	
64	Vedika Sutar		M.BA.	
65	Shrirang Toke		B.Com.	
66	Vedant Harsure		HSC	

Annexure – 3

Schedule of the Field Work

Table III - Phase 1 : 17th to 22nd May 2019

Group Number	Zone	Village	Taluka	District	Names of Field Workers
1	Marathwada	Palasakheda	Kaij	Beed	Dr. Anagha Lavlekar
		Dautpur	Ausa	Latur	Gopal Jadhav
		Borphal	Ausa	Latur	Sujata Yadav
					Kanchan Pande
					Sagar Jondhale
2	Marathwada	Kherda	Kalamb	Osmanabad	Dr. Pranita Jagtap
		Pimpalgaon Dola	Kalamb	Osmanabad	Rameshwar Pawar
		Massa Khurd	Kalamb	Osmanabad	Apurva Shaligram
		Kashidavadi	Kaij	Beed	Pritam Nade
		JayabhayWadi	Dharur	Beed	
3	Marathwada	Pokhari	Ambajogai	Beed	Dr. Jaya Badi
		Shepwadi	Ambajogai	Beed	Asha Shinde
					Nilesh Warudkar
					Somnath Waje
4	West Maharashtra	Rui	Koregaon	Satara	Dr. Ajit Kanitkar
		Nhavi Budruk	Koregaon	Satara	Dr. Anuradha Ohal
					Salman Mujavar
					Aparnagauri Phatak
					Ashwini Aurasang
5	West Maharashtra	Pingli Khurd	Maan	Satara	Dr. Jyoti Kanitkar
		Jakhanagav	Khatav	Satara	Dhanashri Sovani
					Suraj Kaigude
					Narayan Vaze
					Atharv Datar

6	West Maharashtra	Pokhar	Purander	Pune	Dr. Sujala Watve
					Dipti Joshi
					Chetan Kusalkar
					Trupti Kulkarni
7	West Maharashtra	Nadur Pathar	Parner	Ahmednagar	Anita Deshpande
		Dashmi Gavhan	Ahmednagar	Ahmednagar	Vinay Lande
		Kamat Shingave	Pathardi	Ahmednagar	Sai Mulay
					Laxman Mudhale

Table IV - Phase 2 : 26th to 31st May 2019

Group Number	Zone	Village	Taluka	District	Names of Field Workers
8	Marathwada	Rui Dharur	Dharur	Beed	Nilesh Warudakar
		Babhalgaon	Ambejogai	Beed	Asha Shinde
					Gopal Jadhav
					Somnath Waje
					Pritam Naade
9	West Maharashtra	Pare	Khanapur	Sangli	Dr. Deepak Gupte
		Kanakatrewadi	Atapadi	Sangli	Shubhangi Patwardhan
					Ashwini Thaker
					Nachiket Panse
					Laxman Mudhale
10	West Maharashtra	Kati	Indapur	Pune	Pramod Sodollikar
		Khorol	Indapur	Pune	Deepak Kale
					Manjiri Mhaskar
					Sagar Jondhale
					Asha Surve

11	West Maharashtra	Telgaon	Uttar Solapur	Solapur	Gauri Kulkarni
		Khadakoni	Barshi	Solapur	Sumedha Phatak
					Rupali Marathe
					Chetan Kusalakar
					Nilesh Warudkar

Table V - Phase 3 : 3rd to 10th June 2019

Group Number	Zone	Village	Taluka	District	Names of Field Workers
12	Vidarbha	Sasti	Patur	Akola	Smita Nirgudkar
		Mirzapur	Akot	Akola	Deepak Kale
		Jambharun	Patur	Akola	Ash Shinde
		Kherda Khurd	Barshi Takli	Akola	Aniket Patil
					Prithviraj Lingayat
13	Vidarbha	Savarakhed	Morshi	Amravati	Bharti Khasbage
		Kakaddara	Arvi	Wardha	Shirish Joshi
		Sawanga	Warud	Amravati	Nilesh Warudkar
		Musalkhed	Warud	Amravati	Atharva Datar
		Saheli	Arvi	Wardha	Atul Birajdar
14	Vidarbha	Narasapur	Kalamb	Yavatmal	Asha Surve
		Kochi	Ralegaon	Yavatmal	Sagar Jondhale
		Dongargaon	Karanja	Washim	Vinay Lande
		Pimpalgaon	Selu	Wardha	Nachiket Panse
		Fattepur	Deoli	Wardha	Laxman Mudhale
					Shravani Deshpande

Table VI - Phase 4: 12th to 15th June 2019

Group Number	Zone	Village	Taluka	District	Names of Field Workers
15	North Maharashtra	Dhamadod	Nandurbar	Nandurbar	Dr. Pranita Jagtap
		Dhamdai	Nandurbar	Nandurbar	Vinay Lande
		Khondamali	Nandurbar	Nandurbar	Sagar Jondhale
					Neha Potfode
					Asha Shinde
					Laxman Mudhale
16	Marathwada	Nidhona	Fulambri	Aurangabad	Dr. Anagha Lavalekar
		Bhandegaon	Khuldabad	Aurangabad	Shubhangi Patwardhan
					Dr. Deepak Gupte
					Chetan Kusalkar
					Yogeeta Maniyar
					Gopal Jadhav

Annexure – 4

Region-wise Maps of the villages



Figure I : Villages in Marathwada Region



Figure II: Villages in West Maharashtra Region

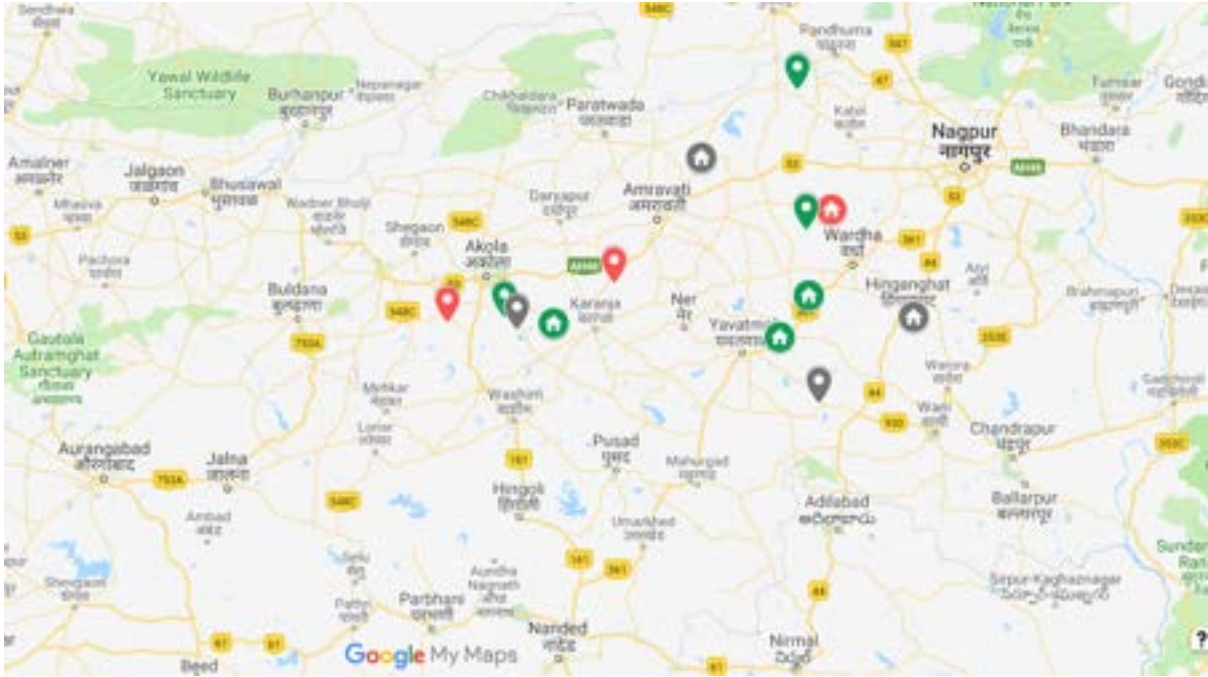


Figure III : Villages in Vidarbha Region

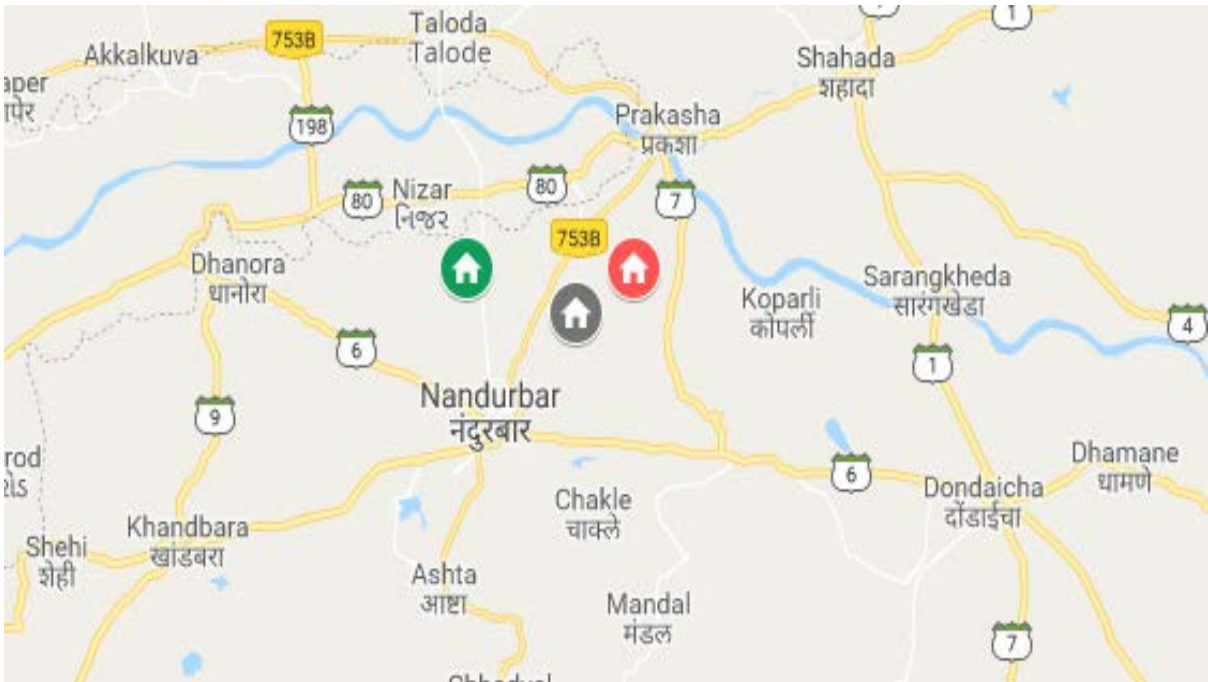


Figure IV : Villages in North Maharashtra Region

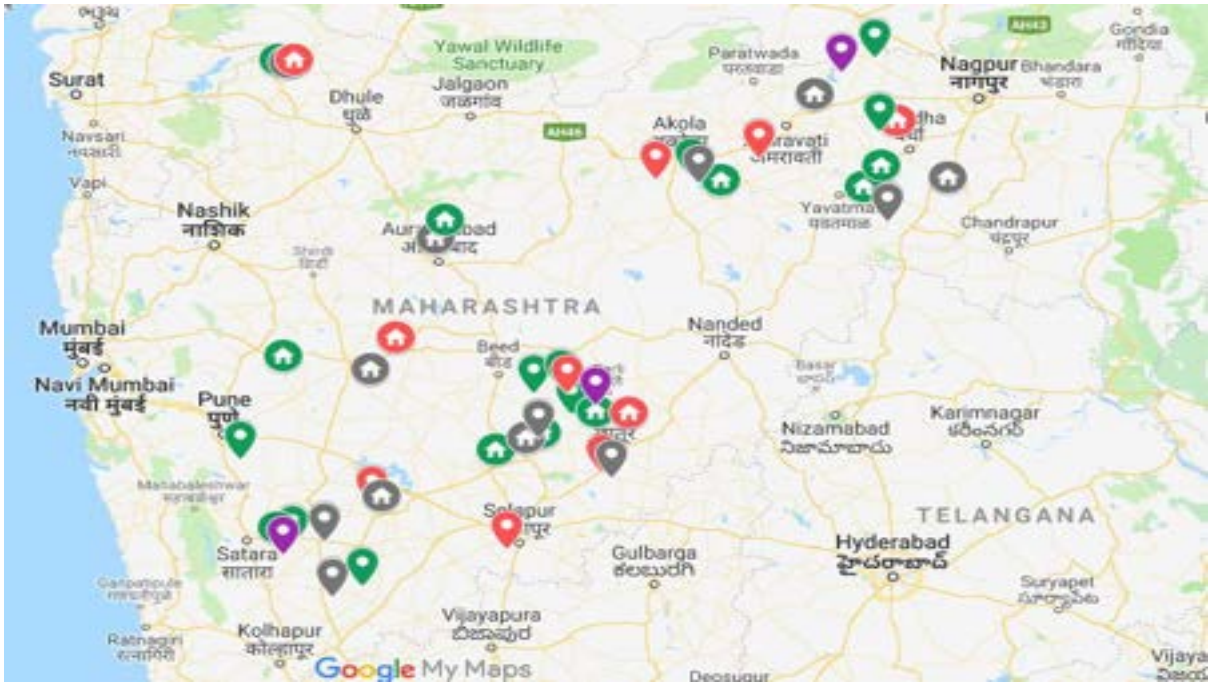


Figure V : Total Villages selected for the Project

Annexure – 5

Case Studies

The villages which participated in SJWC in three consecutive year 2016, 2017 and 2018 were selected for detailed study. These villages were picked from three regions of Maharashtra (one each).

- West Maharashtra - Nhavi Budruk
- Marathwada - Shepwadi
- Vidarbha - Sawanga

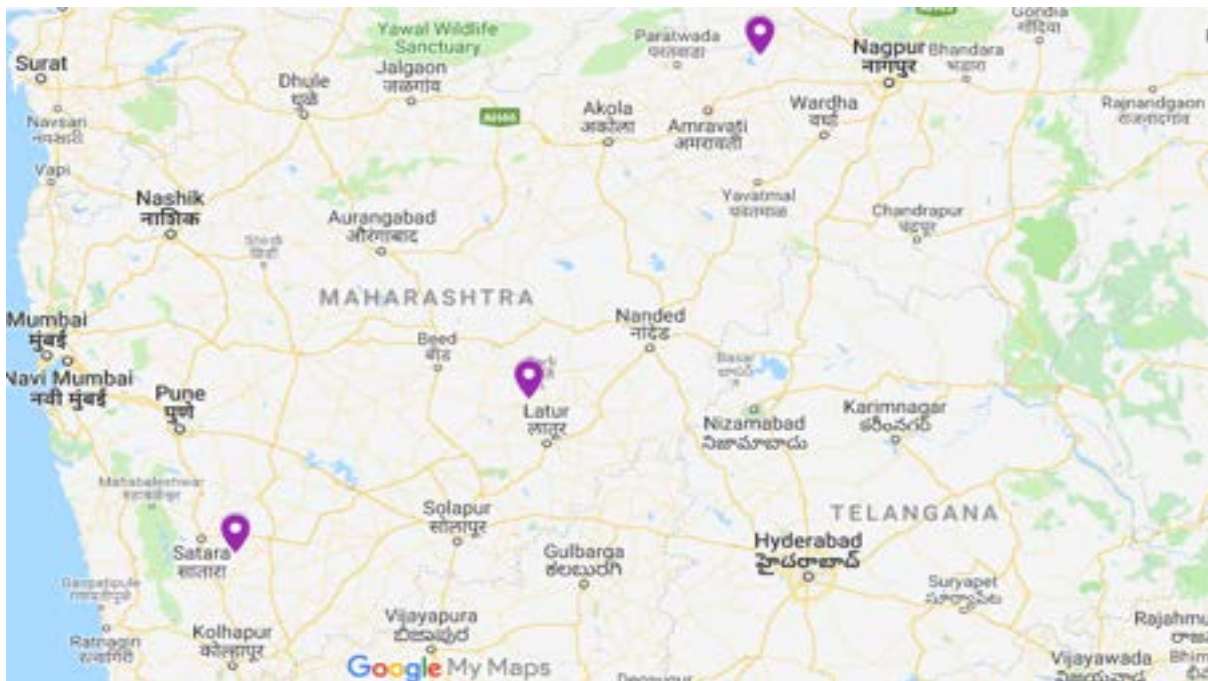


Figure VI : Location of Case study villages

Annexure - 6

Analysis Water cup Training Manual through the lens of *Manasandharan* construct

Objectives:

- To analyse Water Cup Training Manual on basis of presence of *Manasandharan* construct factors, importance given to them by their frequency, identification of sequence/pattern of such factors in training flow
- To comment on relationship between *Manasandharan* construct and Water Cup Training Manual.

Reference Material: Water Cup Training Manual, PPT of *Manasandharan* Six factors

Key Findings:

Table VII : SJWC Training Manual- Frequency of occurrences in each areas

No	<i>Manasandharan</i> Area	Frequency
1	Inclusion- cohesion (IC)	33
2	Group motivation (for a superordinate goal) (GM)	17
3	Leading by selfless behaviour (LSB)	19
4	Agency and Feeling empowered (FE)	26
5	Commitment to actions (CA)	28
6	Adaptive vibrant community (AVC)	5

Comments:

1. Combination of all 6 factors is observed throughout training process with more emphasis on Inclusion and glimpses of vibrant village
2. Leadership development is key objective of the training itself.

त्यांना सांगा की पुढील ३ दिवसांत त्यांच्या अपेक्षा पूर्ण करायचा आम्ही पूर्ण प्रयत्न करणार आहोतच. परंतु जरी हे पूर्णपणे साध्य झाले नाही तरी, शिबिरादरम्यान खालील बाबीसाठी मात्र आपण निश्चित यशस्वी झालेले असू:

1. पाणलोट विकासाबाबत आवश्यक माहिती.
2. प्रेरणादायी नेतृत्व विकसित करणे.
3. स्पर्धेचे नियम आणि निकषाबद्दल माहिती.
4. पाणलोट कामाचे नियोजन कसं करावं ते शिकून घेणे.

Figure VII : SJWC Training manual - 1

3. The flow of training matches with that of *Manasandharan* factors: as **5 willingness to act** and **6 vibrant village** are observed more on third day.
4. Empowerment is achieved by creating self-belief through demonstrating evidences

Example:

विचार करा: देवाला/निसर्गाला दोष द्यायचा? का आपलीच झोळी इतकी फाटली आहे की निसर्गाच/देवाचं देणं आपणच व्यवस्थित साठवू शकत नाही आहोत?

Figure VIII : SJWC Training manual - 2

5. Subtle Empowerment activities are also observed:

३ प्रत्येक गटाला वॉटर हेल्थ चार्ट भरायला द्या.
४ . त्यांना सांगा की या सत्रामध्ये ते गावाचे डॉक्टर असणार आहेत जसे डॉक्टर रुग्णाच्या आजाराचे निदान करतात, तुम्हाला गावाच्या पाण्याच्या आरोग्याचे निदान करायचे आहे. ते कसे करणार? गावाच्या आरोग्य तक्त्यातील प्रत्येक प्रश्न वाचा. ज्या बाबतीत तुम्हाला वाटत

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Figure IX : SJWC Training manual - 3

6. Comparison with other villages is also included in the training which can act as motivator/challenge.

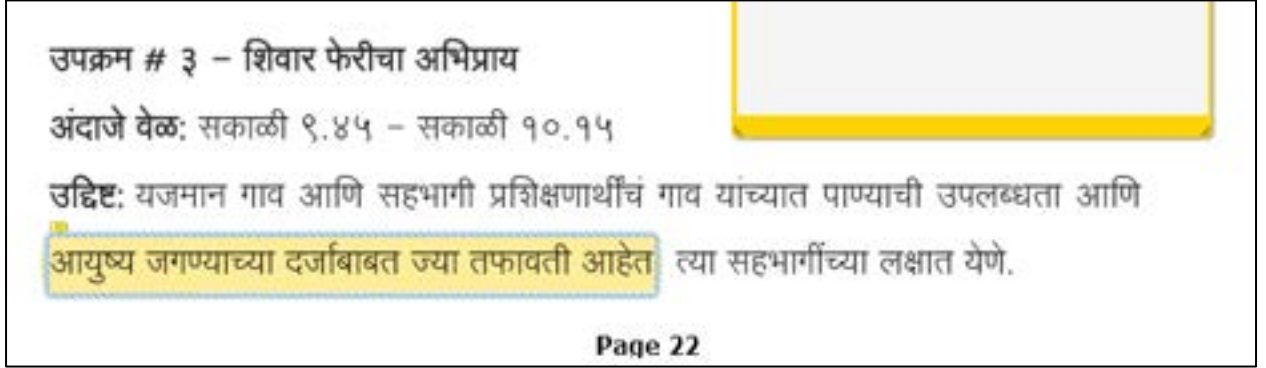


Figure X : SJWC Training manual - 4

7. Participants can visualize the change by the description of a vibrant village. (Motivation and insight)

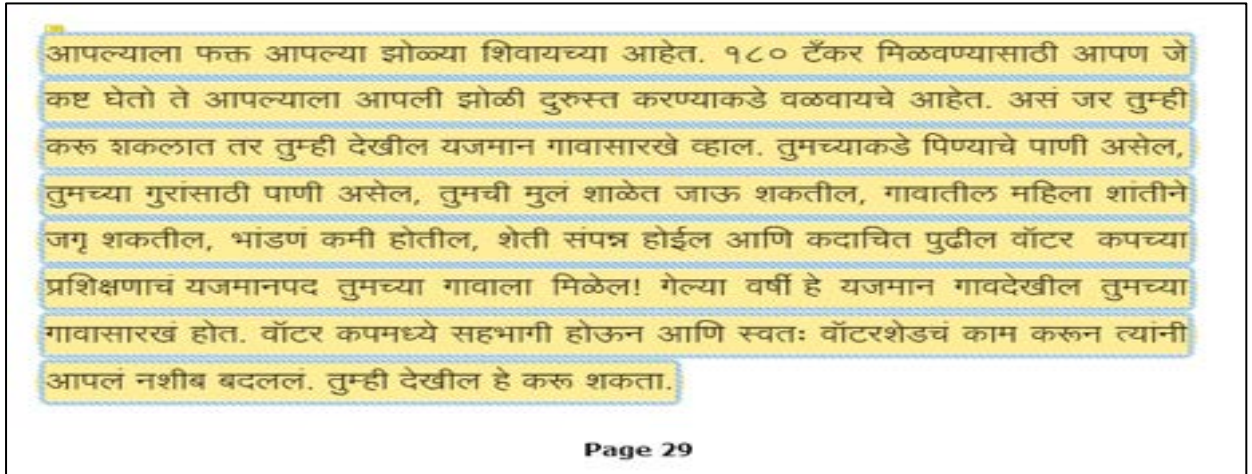


Figure XI : SJWC Training manual - 5

Annexure - 7

Sample Tools

Table VIII-List of tools

Test No.	Test Name	Test Structure	Test measures	Test developed by	Test Language	Standardization status
1	Village Information Schedule	Check-list	Overview of the village	JPIP	Marathi/English	Non Standardised
2	About My village (आमच्या गावाबद्दल)	Likert type four point scale	Six Areas : <ul style="list-style-type: none"> • Inclusion-Cohesion: (IC), • Group Motivation (for a superordinate goal): (GM), • Agency and feeling Empowered: (FE), • Leading by Selfless Behaviour: (LSB), • Commitment to Actions: (CA), • Adaptive Vibrant Community: (AVC) 	JPIP	Marathi/English	Non Standardised
3	Focus group Discussion	Open Ended		JPIP	Marathi/English	Non Standardised
4	Interview (Lead Persons)	Open Ended		JPIP	Marathi/English	Non Standardised
5	Interview (Common Persons)	Open Ended		JPIP	Marathi/English	Non Standardised

Some sample items of the tools are given below-

A. Village Information Schedule

- Village details – Population, No. of families
- Classification of families according to caste, occupation, *wadi-vasti*, account holders
- Use of Agriculture land, Crop Pattern, sources of Irrigation
- Organisational structure in the village
- Traditional festivals – *Jatra*, *Kirtan*, *Saptah*, Other Activities
- About the Water Cup Competition

B. About My village (आमच्या गावाबद्दल)

- No transformative change is possible in our village.

completely agree agree partly disagree totally disagree

- (In our village) for achieving progress of the village, individuals are ready to bear personal hardships

everybody does that a large number does that very few individuals do nobody bears hardships

- (In our village) mutual consultation and discussions on issues of development of our village

is a regular practice happens sometime is an occasional feature never happens

- Contributing time to community work and not for individual agricultural operations and family work is

Most important Important to some extent Not important Not at all important

- Experience in participation in competition has spurred new ideas on development

Many ideas Some ideas Not many Nothing at all

C. Focus Group Discussion

- How was the participation of different sectors in this? (Who contributed / benefitted the work the most? For example – (1) Villagers staying in the village, (2) Villagers going out of the village for some period for occupation, (3) Villagers settled outside the village / country for occupation, (4) Other outside persons / organizations, (5) Media, (6) Political parties.
- What were the obstacles in these changes? How were they overcome?
- Are there any sustainable changes in use of agriculture / water? If yes, what are they?
- What kind of changes do you feel should take place in future?
- Are there any plans for those who did not benefit / benefitted less?

D. Interview (Lead Persons)

- How do you think, the names were selected for the training? (Why did you start taking initiative in this?)
- What were your thoughts before going for the training? How was your experience of the training?
- What efforts did you make so that the villagers uphold this ‘Water Cup Competition’?
- Were there any difficulties? How did you face them? (comments at the village level, post training meeting, people’s response, mobilization of resources, participation in labour-contribution, selection of work locations)
- Which were the real challenging situations in the whole period of work? (difficulties in actual work – overcoming them)
- What are your ideas as to what can be done in your village in the future?

E. Interview (Common Persons)

- How people from different communities were involved in it
- Who took the initiative in this work? Who planned the work?
- Which problems did you face during the competition?
- Did this work benefit many people in the village?
- What do you think will make the village even better in the next 2-3 years?

Annexure - 8

Table IX : Well Measurement- Villages

Sr No.	Region	Village	Taluka	District
1	Marathwada	Pimpalgaon Dola	Kalamb	Osmanabad
2	Marathwada	Pokhari	Ambejogai	Beed
3	West Maharashtra	Pokhar	Purandar	Pune
4	West Maharashtra	Khadakoni	Barshi	Solapur
5	West Maharashtra	Nandur Pathar	Parner	Ahmednagar
6	West Maharashtra	Rui	Koregaon	Satara
7	Vidarbha	Narsapur	Kalamb	Yavatmal
8	Vidarbha	Kherda Kh.	Barshi Takli	Akola
9	Vidarbha	Fattepur	Devali	Wardha
10	North Maharashtra	Dhamdai	Nandurbar	Nandurbar