Available Online at http://www.journalajst.com

ASIAN JOURNAL OF SCIENCE AND TECHNOLOGY

ISSN: 0976-3376

*Asian Journal of Science and Technology*
*Vol. 5, Issue 12, pp.796-803, December, 2014*

## RESEARCH ARTICLE

# AN EMPIRICAL ASSESSMENT OF THE PARTICIPATORY MODEL OF RURAL SUSTAINABILITY: TRACING THE ROOTS OF INSPIRATION TO THE CENTRAL GOVERNMENT POLICY AIMING TO DEVELOP ONE IDEAL VILLAGE PER PARLIAMENTARY CONSTITUENCY

**[1,*]Dnyandev Talule and [2]Suvarna Suryanshi**

[1]Department of Economics, Shivaji University, Kolhapur, 416 004 (MH), India
[2]Gokhale Institute of Politics and Economics, Deemed University, Pune-4 (MH), India

## ARTICLE INFO

***Article History:***
Received 11th September, 2014
Received in revised form
05th October, 2014
Accepted 07th November, 2014
Published online 30th December, 2014

***Key words:***

*Ralegan Siddhi*,
Archaeology,
*Hivare Bajar*,
Decentralized,
Employment,
Opportunities.

## ABSTRACT

The adoption of the concept of an ideal village model consisting of village level identical archaeology, local level planning of the economy, equality based social system, maintenance of socio-economic health, significance of the village parliament, democratic decision making and the provision of merit public goods through decentralized planning is not new to Indian society. It is observed that sustained upwards economic mobility, full employment and inclusive growth of the rural society demand concerted efforts and disciplined planning and implementation at micro level with locally available resources. Maharashtra is one of the leading states in experimenting with the model of micro-level participatory inclusive economic transformation with diversified employment opportunities at village level through an ideal village model, a state with the background of twenty out of thirty districts covering twenty thousand villages (20000) classified as drought stricken. Basically, the model is an outcome of village level efforts based on local leadership combined with strict democratic discipline and decentralized economic planning at the village micro-level. Several villages in the state have followed the model of sustained micro level upward economic transformation, inclusive of all based on the experiment carried out in *Ralegan Siddhi*, a model which was initiated by Shri. Anna Hazare in 1975. The villages under present study have planned the process of upward economic mobility by way of the use of locally available resources and wiped out poverty through increase in income and generation of employment opportunities through farm and non farm sector. The main objective of the ideal village model had been to bring about economic changes on sustainable basis as prescribed by economic theory of development, which included change in cropping pattern and crop intensity, increase in agricultural production and productivity, improvement in underground water table through natural recharge of aquifers, eradication of poverty, employment generation, gender and social equality, environment conservation, a-forestation, use of non conventional energy, agro based allied employment opportunities, education, social understanding, savings and capital formation at village micro level. Present paper is based on the village level empirical study of two such villages i.e. *Ralegaon Siddhi* and *Hivare Bajar* located in Ahmednagar district of Maharashtra. The villages which earlier were purely rain fed - drought stricken and poverty and unemployment-ridden, now stand as prosperous villages with full employment and with almost no incidence of poverty realized through upward socio-economic mobility of all village-level economic variables that too on sustainable basis. The present paper attempts to explore socio-economic transformations with full employment at rural micro level assuring inclusive growth of village communities for over a period of about four and two and a half decade respectively in *Ralegan Siddhi* and twenty years in *Hivare Bajar* is based on primary data obtained from 319 households consisting of 55.55 per cent of the total households of these two villages.



## INTRODUCTION

One of the targets of the new central government's 'minimum government maximum governance' is the development of one ideal village in each of the parliament constituency. Such kind of efforts are not new to this country. In fact the history of such projects in India can be traced back to the periods of Harappan civilization where people used to live in ideally set habitats. Even during the recent past many such efforts in Punjab, Haryana and Maharashtra have taken place. Two such villages from Maharashtra have been paving the path of inclusive development for over a period of about four decades. Maharashtra is one of the leading states to experiment with the model of sustainable rural and agricultural transformation through the ideal village scheme. This scheme

***Corresponding author: Dnyandev Talule***
*Department of Economics, Shivaji University, Kolhapur, 416 004 (MH), India*

is an outcome of village level efforts and strict democratic discipline and decentralized planning inspired by local leadership at *Ralegan* in 1975. Major parts of Maharashtra come under rain fed conditions. Twenty out of the total thirty districts, covering more than twenty thousand villages, are classified as drought stricken. The current irrigation cover of Maharashtra stands at around 20 per cent (19.20%) which is less than the national average of 38 per cent.

Hence, excluding a few regions having availability of irrigation cover, much of the state agriculture depends on the vagaries of monsoon resulting in low productivity and cropping intensity. As a result, the incidence of rural poverty in the state is still above the national average. Despite long experience of employment guarantee scheme, the state is far from meeting the requirements of rural infrastructure for its agriculture and allied sectors. Majority of the agriculture in the state being seasonal, the issue of employment becomes more acute. As a result of the drought stricken rural economy of the state and the lack of policy efforts and targeted public investment the state of Maharashtra has become one of the worst affected regions of suicides by farmers in the country (Talule, 2010).

The district of Ahmednagar is also no exception to these peculiarities of the state where the villages under present study fall. Average annual rainfall of the district is limited at 300 mm with major parts of the district having no irrigation cover. But the model of the ideal village initiated in 1975 at *Ralegan Siddhi* and followed by another village under present study has proved that the rural micro level upward economic integration is possible on sustainable basis. Basically, the model aims at disciplined use of locally available natural resources for the rural economic transformation. Concerted efforts of micro level planning of the village economy based on voluntary participation have been instrumental in upward economic transformation of the local life. It has brought structural changes in agrarian economy. These changes consist of the change in cropping pattern and crop intensity, watershed development, aforestation, conserved use of water resources, crop planning and recharge of underground water aquifers. All these changes have transformed the rural economy from being drought stricken, having single cropping agriculture, afflicted by the predominance of poverty and unemployment into a commercially enterprising agricultural economy with round the year employability in farm and non farm sector which has alleviated poverty across social groups.

**Hypotheses**

The present paper is based on the set of two hypotheses; 1- Village level planning of economic development, direct involvement of people in the implementation of the same and proper use and conservation of locally available natural resources which have been the main components of the ideal village model, were instrumental in fulfilling the objectives of full employment and sustainable socio-economic mobility at the village micro level; and 2- Micro level planning and management of watersheds changed the seasonal form of agriculture into annual and commercially viable agri-business with expected changes in cropping pattern, crop intensity and productivity resulted in net incremental benefits from farm income and thereby full employment and the change in economic status of the village economy.

**Data and Methodology**

The entire analysis making up the present paper is based on primary data obtained from two of the successful ideal villages, *Hivare Bajar* and *Ralegan Siddhi* from Ahmednagar district of Maharashtra. The villages emerged as the most successful in implementing the model where *Ralegan Siddhi* pioneered the experiment in the way back 1975 followed by another village *Hivare Bajar* in 1994. One hundred households from a total of 180 (55.55%) with population of 1150 from *Hivare Bajar* and 219 households from *Rlegan Siddhi* with an equal proportion of 55.55 per cent with a population of 2306 have been surveyed for obtaining the primary based information.

**Concept and Background**

Despite concerted efforts of targeting poverty through national planning, an estimated 301.72 million of Indians still remain in poverty. The decline in poverty from 36 per cent in 1993-94 to 27.5 per cent by 2004-05 has been much less than was anticipated. 28.3 per cent (220.92 million persons) of rural where as 25.7 per cent (80.79 million persons) of urban population of India cannot afford to spend Rs. 356.30 and Rs. 538.68 on their monthly consumption as determines the poverty line. G.D.P. oriented economic transformation of the country during economic reforms has widened the gap between rich and poor. At the national level those who are poor are extreme poor and are unable to find even two square meals a day where as the few industrial executives dominate the list of world rich. In this background it is required to understand achievement of progress the progress that has been attained by two villages based on equality in the state of Maharashtra with the help of the implementation of an Ideal Village Model. By Indian standards, *Ralegan Siddhi* and *Hivare Bajar* are rich villages now. Not a single household is dependent on government relief programme. Incomes in both the villages have risen to the point that more than a quarter of households in *Ralegan Siddhi* earn more than Rs. 5 lakh ($11,000) per annum where as net increase in household disposable income of *Hivare Bajar* has been of the tune of 421.40 per cent. Villages are so prosperous today that the nationalized banks have opened branches there. Residents of *Ralegan Siddhi* reportedly have private savings of Rs.30 million or about $700,000 (Mehta and Satpathy 2008). The progress of two villages is more striking in the background of the fact that only a million households in the country earn more than one million a year and they are considered 'super rich' by the National Council of Applied Economic Research. Hence for the villages which were once badly degraded both socio-economically and environmentally, this is no less than a miracle.

*Ralegan Siddhi* and *Hivare Bajar* is not just a story of change as a result of access to water for agriculture. It represents a remarkable economic, social and community regeneration on sustainable basis and inclusive of all, only realizable under a strong, selfless, ethical and accountable leadership with enforced principled value system to bring about behavioral change. As the rural poor are dependent on natural resources

for livelihoods, natural resources conservation and access to water are central in rural poverty eradication strategy. The model that has been implemented in both the villages reinforces the normative principles of human development – equity, administrative efficiency, sustainability, strategy of inclusion and peoples' participation. And all of these were realized. The replication of an afore-cited successful best practice is the case of *Grameen* Bank in Bangladesh, established by a Nobel Economist Mohammad Yunus. That has been emulated across the world as an effective tool for fighting poverty has disproved the traditional notion that the poor are not 'creditworthy' (Mehta and Satpathy 2008).

The ideal village model initiated at the local level as a voluntary activity at *Ralegan Siddhi* in 1975 was accepted by the government of Maharashtra as an official programme in 1992 for expansionary socio-economic impact in the state. Basically, the model was based on certain disciplinary behavior and self imposed restrictions by villagers on themselves. All these restrictions were self imposed for the purpose of the conservation of locally available natural resources and the planned use of the same in the forthcoming process of upward economic mobility. These restrictions were in the form of the restrictions on free grazing, cutting of trees, ban on alcohol, restrictions on family size etc. The voluntary implementation of the model proved its positive impact within a period of a few years in the form of an upward socio-economic mobility of the village through the transformation of micro level macro economic variables. As a result, the model was accepted as an official programme of the state planning in 1992. In all, three hundred and fifty villages were selected from all over Maharashtra for their socio-economic transformation under the state sponsored scheme. The criteria for the selection of the villages under the state scheme consisted of: the village population should be less than four thousand with no cover of irrigation facility available and the well irrigation cover is less than 30 per cent. Also the village showing willingness through its panchayat of disciplinary behavior and maintaining discipline about ban on alcohol, open grazing, cutting trees, control on family size etc. was to be considered eligible to take advantage of the implementation of the state sponsored model.

**Brief Background of the Selected Villages**

Both the villages selected for present study are located in the acute drought-prone and rain-shadow zone of Ahmednagar district, in central Maharashtra. *Ralegan Siddhi* is at a distance of 87 km from Pune and 5 km from Pune – Ahmednagar highway where as *Hivare Bajar* is located at 17 km towards west of Ahmednagar. The total area of *Ralegan Siddhi* stands 982.31 hectare where as the area of *Hivare Bajar* is 976.44 hectares with the population of 2306 and 1142 and the households 394 and 218 respectively (Ahmednagar district, 1991). The studied villages are characterized by an erratic and scanty rainfall with an annual average of 550 and 330 mm. (GoM). Temperatures range between 12 and 44 degree (ibid). Most of the rain is received between the months of July and September, with September receiving the maximum of it. The villages get rain on approximately 35 – 40 days of the year. Out of the total village area of 982.31 ha, 710.94 ha. of *Ralegan Siddhi* and 795.28 ha. of *Hivare Bajar* from 976.44 ha. is under cultivation where as forest cover of both the villages is 194.28 ha. and 70 ha. respectively. The soil-depth of 70 per cent of the land of both the villages is shallow with the maximum depth at *Ralegan Siddhi* is about 45 cm. Before 1975 in *Ralegan Siddhi* and 1990 in *Hivare Bajar* i.e. pre ideal village model implementation most of the rainwater was wasted owing to water runoff, which subsequently led to loss of valuable topsoil. In 1971, only 55 acres of land in *Ralegan Siddhi* had seasonal irrigation cover. Between 1971 and 2001 i.e. during the ideal village model implementation, the number of households in *Ralegan Siddhi* increased from 178 to 394 or by 121 per cent where as the population for implementation period (1991-2001) increased from 1027 to 1137 with a net increase of 110 persons. Average household size of the villages is found as 5.85 and 6.33 respectively. Before the implementation of an ideal village model the economy of both the villages had a massive dependence on money order remittances from migrant family members to Mumbai. Of the 394 households in *Ralegan Siddhi* in 2001, 18.3 per cent were below poverty line and 4.3 per cent were very poor (Mehta and Satpathy, 2008). Agriculture is the main source of livelihood of both the villages hence non-farm employment opportunities are limited. But post model change in lifestyle and increase in education enabled young generation to take on various services sector jobs both in public and private sector. Now children are able to compete and get jobs.

Before 1975 the *Ralegan Siddhi* and prior to 1990 *Hivare Bajar* were of the category of many villages of India plagued by acute poverty and unemployment, deprivation, a fragile eco-system, neglect and socio-economic hopelessness. Pressure of population, indiscriminate use of natural resources, lack of efforts at regeneration, recurrent cycles of drought, water runoff and soil depletion resulted in low productivity and negative income from agriculture. The cropping pattern was limited to three – four crops with very low productivity. The only option in both the villages for dealing with the severe water shortage was to dig wells. Since rain was erratic and no conservation work was undertaken, not even a single crop was assured in a year. Around 15-20 per cent of population of both the villages was underfed and could barely manage a meal a day. Around 60 per cent of households borrowed grains and money from private money lending mechanism with high rates of interest. The business of country liquor vending in both the villages seemed most feasible and profitable.

The success and visible improvements in the standard of living of liquor vendors attracted many others to resort to and it resulted in proliferation of liquor vendors in both the villages with the number increasing to more than 40 in *Ralegan Siddhi* and equally high incidence in *Hivare Bajar*. Caste discrimination, particularly the un-tochability, was in practice. Prior to ideal village model the 16 *dalit* households of *Ralegan Siddhi* were living in isolation and were not allowed to get water from community well. Also were made to sit separately at all community events such as marriage and other village programmes and were the last to be served food. Before 1975 in *Ralegan Siddhi* and up to 1991 in *Hivare Bajar* only a *zilla parishad* school up to primary level was the source of education. Only 10 per cent of children of *Ralegan Siddhi* attended school regularly (Pangare and Pangare, 1992). Poverty prevented people from accessing educational avenues outside the villages. But now both the villages have better educational infrastructure with *Ralegan Siddhi* the multi-

faculty education facilities up to higher secondary level. With the aforementioned socio-economic background an army retired Shri. Anna Hazare of *Ralegan Siddhi* launched a model of ideal village in 1975 with a disciplinary characterization which was followed by an energized leadership in *Hivare Bajar* in 1991 and the outcome of the efforts in both the villages has been surprising for over a period of a few decades which has proven sustainability and the principle of inclusive growth is underlined.

## RESULTS AND DISCUSSION

At the studied villages, implementation of the ideal village model has played a significant role in availing resources for the village level investment in generating common property resources followed by maintenance of the same through peoples' participation. Mainly peoples' participation comes through the contribution of voluntary labour in generating and maintaining of common property resources. As the contribution of voluntary labour is a significant constituent of the ideal village model it saves money on implementation which can be used on other works on the one hand and makes the sustenance of the resources possible on the other. The generation and maintenance of the common property resources at the village level consisted of water and land bunding, plantation, underground bunds, percolation and cement and farm tanks, storage dams, community hall, school building, child home, women work shop, laboratory, training centre, common wells and toilets, hospital for village people and animals, drinking water system, village roads, gram panchayat office, infrastructure in *dalit* locality, library, school toilets, common function hall, water storage tanks, wall compound for all common infrastructures, crematorium and cemetery, cattle drinking water, *dalit* community hall, masjjid for the only *muslim* family in village *Hivare Bajar* (as the one village does not have any Muslim household), public toilets and housing for the poor.

The model village also availed substantial amount of funds for maintenance of these common resources under various schemes which has a dual impact on the village economy of both the studied villages i.e. the sustenance of infrastructure on the one hand and the employment on these marginal works on the other. Implementation of the model in both the villages on the one hand has created awareness about rural development schemes and attracted government officials; on the other which has led to priority basis funding for creation and maintenance of common property resources at the ideal village level. There are several examples of attempts of socio-economic mobility in rural India through generation and maintenance of common property resources such as *Sukhomajri* village in Haryana (Khurana 2005). The basic thrust of the *Sukhomajri* model had been on the watershed management but this activity is one of the ingredients of the ideal village model in Maharashtra which is based on multi activity concept of rural development which therefore has a base for sustainability.

The management of common property resources through peoples' participation led to upward economic integration of household farm economy through net increments in farm income, structural change in village level employment opportunities, standard of living and saving and capital formation, better health facilities and education (Khurana 2005). Plantation and conservation of forest and horticultural trees are considered as a significant aspect of rural economy both for the environment and economic progress of the local farmers. Despite concerted efforts on the part of the state and central governments enhancing and maintaining of the minimum recommended forest cover is proved to be difficult at the national level. But the case of the studied ideal villages in Maharashtra is altogether different. It is the basic prerequisite of the ideal village model in Maharashtra, that is, to enhance and maintain forest cover through the government, panchayat and individual plantation and maintenance of the same. In fact the forest cover has a vital role in sustainable transformation of the rural economy. In all, the 100 households of *Hivare Bajar* and 219 of *Ralegan Siddhi* have planted 4690 and 6964 trees of thirty four categories which have been maintained by the villagers of studied villages at the private individual household level.

**I. Socio-Economic Characteristics of the Villages Demographic Details**

| *Sr. No.* | *Item* | *Quantum* | |
|---|---|---|---|
| | | *Hiware Bazar* | *Ralegan Siddhi* |
| 01. | Total No. of households | 218 | 394 |
| 02. | No. of households covered in the study | 100 | 219 |
| 03. | As percentage of 01 above | 55.55% | 55.55% |
| 04. | Average household size | 06.33 | 5.85% |
| 05. | Total population of the village | 1141 | 2306 |
| 06. | Total no. of male | 589 (51.62%) | 1265 (54.85%) |
| 07. | No. of female | 552 (48.37%) | 1041 (45.14%) |
| 08. | Proportion of households reporting cultivation | 100% | 100% |
| 09. | Household disposable income | (1994)Rs.11,967<br>(2004)Rs.62,396 | (1975) Rs.19,433<br>(2004) Rs.5,00,000 (of 25 Households) |
| 10. | % Change in household disposable income | 421.40% | |
| 11. | Proportion of families living at farm houses | 55% | 30.45% |
| 12. | Poverty | (1995) N.A.<br>(2004) 00% | (1975) 70%<br>(2009) 00% |

* Source: Village Records and Mehta & Satpathy, IIPA Working Paper, New Delhi, 2008

Apart from private household plantation, 8 lakh trees in *Hivare Bajar* and 4 lakh in *Ralegan Siddhi* were planted under the social forestry of which 5.60 lakh (70%) and 3.80 lakh (95%) trees have survived which has changed the environmental value of the vicinity of these villages.

**II. Post Model Agrarian Structure of the Villages**

| *Sr. No.* | *Item* | *Quantum* | |
|---|---|---|---|
| | | *Hiware Bazar* | *Ralegan Siddhi* |
| 01. | Total land of the village | 976.44 hectare | 982.31 hectare |
| 02. | Land under cultivation | 795.28 hectare | 710.94 hectare |
| 03. | As percentage of 01 above | 81.44% | 72.37% |
| 04. | Land under forest | 70 hectare | 194.28 hectare |
| 05. | As percentage of 01 above | 7.16% | 19.77% |
| 06. | Grazing land | 100 hectare | 11.33 hectare |
| 07. | As percentage of 01 above | 10.24% | 1.15% |
| 08. | Cultivable waste | 4.5 hectare | 36.66 hectare |
| 09. | As percentage of 01 above | 010.46% | 3.73% |
| 10. | Land not cultivable | 6.36 hectare | 4.00 hectare |
| 11. | As percentage of 01 above | 0.65% | 0.40% |
| 12. | Average annual rainfall | 330 mm | 550 mm. |

Source: Village Records

**III. Post Model Acquisition of Common Property Resources**

| *Sr. No.* | *Item* | *Quantum* | |
|---|---|---|---|
| | | *Hiware Bazar* | *Ralegan Siddhi* |
| 01. | No. of hand pumps | 14 | 7 |
| 02. | Community toilets | 18 | 21 |
| 03. | As percentage of total No. of households | 10% | 5.32% |
| 04. | Household individual toilets | 176 | 129 |
| 05. | As percentage of total No. of households | 97.77% | 32.74% |
| 06. | Main drainage line for village | 2 km | 6 km (Approx) |
| 07. | School / Education Facility | 1st to 10th | 1st to 12th |
| 08. | School building (No. of Rooms) | 12 | 24 |
| 09. | Boys: Girls ratio in school | 50:50 | 56:44+70:30# |
| 10. | Total No. of teachers | 11 | 28 |
| 11. | Grampanchayat office | 01 | 01 |
| 12. | Community hall | 01 | 01 |
| 13. | Go-down | 01 | 01 |
| 14. | Dairy | 01 | 02 |
| 15. | Animal hospital | 01 | 01 |
| 16. | Bus stop | 01 | 01 |
| 17. | Patwari (revenue dept.) office | 01 | 01 |
| 18. | Training centre | 01 | 01 |
| 19. | Temple (well maintained) | 03 | 03 |
| 20. | Masjid | 01 | -- |
| 21. | Common garden | 01 | 01 |
| 22. | Telephone booth | 01 | 02 |
| 23. | Cemetery | 01 | -- |
| 24. | Crematorium | 01 | 01 |
| 25. | C.C.T. Water storage capacity (Lakh ltrs.) | 2.25 | 05 |
| 26. | Nalla bundings | 51 | 18 |
| 27. | Percolation tanks | 02 | 01 |
| 28. | Total No. of trees planted | 8 lakh | 4 lakh |
| 29. | Survived | 5.60 lakh | 3.80 lakh |
| 30. | Proportion of survival | 70% | 95% |
| 31. | Forest tanks | 02 | 04 |
| 32. | Underground tanks | 02 | 05 |
| 33. | Cement tanks | 05 | 05 |
| 34. | Storage tanks | 07 | -- |
| 35. | Average depth of underground water table | 25 ft. | 35 ft. |
| 36. | Library | 01 | 01 |
| 37. | Nursery | 01 | 02 |
| 38. | Co-operative Institutions | 01 | 05 |
| 39. | Self Help Groups | 05 | 17 |

Source: Village Records, # For Higher Secondary

It has helped the conservation of village level resources such as the underground water table, controlling temperature in the vicinity, as well as, helped farmers to generate additional income through the forest products such as fruits, vegetables, building material and the wood for farm implements. The total market value of the resources generated through this category of efforts at the current price level of 2009 is more than Rs.65 lakh (Rs.6534675) and 82 lakh (Rs.8223155) respectively. The plantation also consisted of some high value fruit trees such as Coconut, Cashew, Mango and sufficient number of trees are of medicinal category.

The plantation of fruit and medicinal trees has opened up the new avenues of income where as rest of the category has saved the construction cost of their houses as the majority of construction material of new houses they built consisted tree wood. Therefore it has been possible to most of the villagers from both the villages to opt for some or the other category of housing improvement. It is found as replica of the Eucalyptus revolution of Karnataka which took place thirty years back through the efforts of state forest department but the present revolution is a part of individual household level efforts of the

**Table 1. Preferential Order of Respondents about Basic Socio-Economic Changes of Study Villages**

| Sr. No. | Opinion | *Hiware Bajar* | *Ralegan Siddhi* | Average |
|---|---|---|---|---|
| | | Agree | Agree | |
| 1 | Increase in Agricultural Productivity | 95 | 200 | 98.33 |
| 2 | Increase in Agricultural Resources | 98 | 61 | 53 |
| 3 | Improvements in Under ground Water Table | 97 | 116 | 71 |
| 4 | Increase in Social Integration | 98 | 100 | 66 |
| 5 | Alleviation of Alcohol and Addictions | 98 | 60 | 52.66 |
| 6 | Change in Income and Thinking | 97 | 35 | 44 |
| 7 | Achievement of Literacy & Education | 97 | 63 | 53.33 |
| 8 | Elimination of Superstitious ness | 97 | 30 | 42.33 |
| 9 | Improvement in Living Conditions | 65 | 41 | 35.33 |
| 10 | Use of H.Y.V.S. and Improvements in Productivity | 66 | 12 | 26 |
| 11 | Road connectivity | 78 | 46 | 41.33 |
| 12 | Increase in Forest Cover | 89 | 76 | 55 |
| 13 | Generation of Employment Opportunities | 68 | 36 | 34.66 |
| 14 | Village Free of Conflict | 78 | 23 | 33.66 |
| 15 | Cleanliness and Health | 89 | 30 | 39.66 |
| 16 | Adoption of Modern Life | 26 | 24 | 16.66 |
| 17 | Holistic Change of Village | 56 | 22 | 26 |
| 18 | Improvement in Water table | 100 | 27 | 42.33 |
| 19 | Availability of Urban Amenities | 43 | 26 | 23 |
| 20 | Change in Cropping Pattern | 78 | 190 | 89.33 |

* Source : Field Survey

ideal village farmers of *Hivare Bajar* and *Ralegan Siddhi* as a voluntary activity. The implementation of ideal village model in both the villages has been instrumental in bringing agriculture diversification through bringing of changes in cropping pattern, crop intensity, production and productivity of the village agriculture. Post model cropping pattern of *Hivare Bajar* increased to fifteen crops from the earlier seven crops and that of *Ralegan Siddhi* it has gone up to thirty two (32) crops from the earlier six (06) consisting more number of commercial crops than before. The earlier cropping pattern was limited to traditional food grains such as Bajra, Jowar, Wheat and Pulses category crops where as the post model pattern shows the dominance of commercial crops consisting Vegetables, Fruits and Floriculture crops. Crop wise production and productivity has shown substantial increase mainly because of the availability of water for irrigation which has resulted in an increase in crop wise total production and net farm income.

There has been a multifold increase in the productivity of traditional crops like Bajra, Jowar, Wheat and even the Pulses. As a result of the addition of commercial crops to the cropping pattern of both the villages the household level farm economy of these cultivators has undergone a sea change. It has brought a substantial net incremental impact in the household income, consumption, savings and farm level capital investments. It indicates and does also advocate the case of agriculture diversification of the state of Maharashtra. As a result of the pro horticulture diversification of the state agriculture after the linkage of Employment Guarantee Scheme to private infrastructure generation in 1991 the state gained an edge in horticulture output of the country. Hence the ideal village model proves its potential of the second diversification of the state agriculture through the management of common property resources and cropping pattern at the village micro level.

## Conclusion

The adoption of the concept of an ideal village model consisting village level identical archaeology, local level planning of the economy, equality based social system, maintenance of socio-economic health, significance of the village parliament, democratic decision making and the provision of merit public goods through an effective leadership is not new to Indian society. During the subsequent visits to the studied ideal villages for the present study in Maharashtra the team was reminded of the outcomes of historical excavations at Mohenjo daro and the Harappa and the excavational discovery of other hundred and fifty such villages in India. In short, India has a long history and experience of managing planned democratic economy and the Ideal Villages covered under the present study is the replica of the same which has a potential of sustenance. There are several such successful villages in the state of Maharashtra. The foregoing analysis brings out a significant prerequisite of the success of the model in the form of discipline maintained on democratic lines and therefore the socio-economic mobility achieved has a sustainable existence. Another important aspect of the model is that it has proven capacity of ensuring horizontal equity among the people with equal opportunities of the use of common property resources such as water and forest resources. It is proved in case of countries like India that the national level macroeconomic planning has limitations of potential of resources and implementation but the village micro level efforts in the form of the present model can certainly overcome the same.

Local level planning, conservation and the use of resources available, mainly the water and forest land, have the potential to transform the entire village economy and furtherance of the same through positive spillovers. As a result of the village level micro economic planning based on democratic discipline, there have been basic socio-economic and structural changes brought in by the model which can be proven along strict economic lines. They are: education, debt level, use and source of credit, aforestation both through the public and private efforts, change in cropping pattern-intensity and productivity, water storage, improvements in underground water table and the recharge capacity of aquifers, methods of irrigation, infrastructure through voluntary labour, farm and off farm round the year employment, agri-support, health, transport, etc. All these aspects have contributed to the socio-economic mobility of the village economy which has a sustainable base

for over a period of more than three decades in *Ralegan Siddhi* and one and a half decades in *Hivare Bajar* in the state of Maharashtra. The Model has enabled villages to achieve MDGs which is difficult at national macro level for developing economies. The collective willingness of people for disciplinary behaviour about the maintenance of five point programme (*Panchsutri*) consisting the ban on cutting of trees and open grazing, voluntary labour at village infrastructural works, ban on alcohol and family planning has brought prosperity and sustenance of the same which the model has achieved. Inadequate availability of credit and usurious practices of private moneylenders along with other agricultural problems such as irrigation and thereby low productivity with the curse of rural and agriculture infrastructure resulted in the crisis and worst shock of farmers suicides in Maharashtra but none of the suicide case has been reported from any of the ideal village from the entire state. 89 per cent of the suicide affected farm households in Maharashtra are debt trapped but no household from the studied ideal villages has a debt overdue. The reason for this type of satisfactory performance is attributed to the ideal village model. Availability of institutional credit, productive use of the same and timely repayment enhances the future credit ability; all contribute to a multiplier impact on the village and agricultural economy of both the villages.

Sustenance of socio-economic mobility is accrued to the use of non conventional energy, modern irrigation practices and water conservation, storage and transportation, capital investment in aspects such as wells, P.V.C. pipe line, pump sets, housing and plantation and health facilities. Basic aspects of socio-economic mobility which can be proved on the principles of economic discipline has to be accrued to the ideal village model that has brought positive changes in socio-economic indicators like the increase in agriculture productivity, generation of rural infrastructure, improvement in underground water table, social integration, literacy and higher level of education, alleviation of poverty and unemployment and saving and capital formation. All these aspects cannot be planned or arranged through centrally planned economy but needs decentralization of the same on the lines of these ideal villages with participation of beneficiaries at the local micro level with grater role of *panchayati raj* and voluntary leadership which can bring an expansionary impact of the ideal village model at the state and national level.

**Issues and Concerns**

The study provides evidence of the success of *Ralegan Siddhi* and *Hivare Bajar* and brings out the sustainability for over a long period in both the villages. These villages are outstanding examples of a large number of rural households successfully and sustainably moving out of poverty and underemployment. What is achieved in both the villages is enough to understand the meaning of inclusive growth based on judicious management and conserved use of locally available natural resources and peoples' participation. By putting the poorest first, each person in the community has been enabled to participate in and benefit from development. Hence the success of *Ralegan Siddhi* and *Hivare Bajar* is unquestioned and is based on the conversions of a large number of factors. However, despite the success of these two villages covered by the present study, several issues and concerns need to be addressed. The watershed based conservation of resources such as the underground water table and the water lifting schemes from the adjoining irrigation canal have led to the irrigation of 90 per cent of the cropped land in *Ralegan Siddhi*, but in case of drought the irrigation is not guaranteed. While the watershed in both the villages is fully developed, it depends on rain fall. If it does not rain, there will be shortage of water in both the villages.

Further the land of both the villages is perennially irrigated and limited to certain parts only. Even this depends on lifting of water from wells in both the villages where as for *Ralegan Siddhi* some farmers have the water available from nearby canal to be availed through electric pumps but the supply of water is assured only if there is electricity. But in rural parts of Maharashtra there is 18 hours of load shedding and only six or seven hours of electricity during the peak season of agriculture which is not enough for operating irrigation system. Around 16-18 hours of assured electricity supply is required. Just 25 km from *Ralegan Siddhi* and 17 km from *Hivare Bajar* Maharashtra Industrial Development Corporation at *Supa* village has continuous electricity, but the same is neither available for the studied ideal villages nor is for any other village in the state. During the peak season of agriculture, there is water in the village wells, also is available the pump-sets and pipeline infrastructure but the same cannot be operated because there is no electricity. Erratic supply of electricity at critical times affects incomes of individual households as well as the progress of the villages. Further the development is possible, for instance through value addition of agri-outputs under the brand name of both the villages as is done by the village *Hivare Bajar* in Dec. 2010. Both the villages are located near an industrial area; hence small-home based workshops are possible. For example the SHGs in *Ralegan Siddhi* have large savings and the money can be used for starting small collective enterprises which can benefit the neighbouring villages through employment opportunities.

**End-Notes**

- During our survey, it was pointed out to us by the village people who witnessed the process of economic mobility from erstwhile destitute conditions the village *Hivare Bajar* has been a village always reeling under poverty, unemployment, low agriculture production, insufficient water even for drinking and agriculture depending on traditional low yielding crops.
- Most of the people of the villages used to out-migrate for temporary employments and the destination of migration was Mumbai. The migration used to be during the period of lean agriculture season with the purpose of debt repayment obtained from private moneylenders but the adoption of an ideal village model has completely abolished the practice of money lending through private sources.
- Before the adoption of an ideal village model 80 per cent of village people had the habit of alcohol consumption and also there were 4-5 illegal alcohol producers in the village *Hivare Bajar* and around 45 / 47 in *Ralegan Siddhi.*
- The concept of an Ideal village Model refers to the voluntary efforts at the village level with the significant role of panchayat in making all decisions of development. Panchayat unanimously makes all decisions such as the

planning of village cropping pattern, use of common property resources based on equality, solving local level problems in order to avoid litigations, etc.

- There have been a number of attempts of ideal village in the country like *Sukhomajri* in Haryana but could not have sustenance in the long term but the model in Maharashtra has a sustainable base because it is based on multi-components like the watershed management, planning of cropping pattern, contribution of voluntary labour of villagers, democratic decision making and strict implementation of *panchasutri* (the five point programme) consisting the ban on open grazing, alcohol, tobacco, cutting of trees and the adoption of family planning. Therefore the first ideal village *Ralegan Siddhi* which was launched in 1973 and the another village under present study *Hivare Bajar* launched in 1994 are continuing on the same line of economic progress.
- The progress of the villages studied has not been an easy course. They had struggled hard to get basic facilities from the state government such as electricity. In the initial stage the village *Ralegan Siddhi* had satisfactory availability of water through social forestry and watershed development programme but the economic transformation was not an easy game as villagers didn't have the electricity to operate their pump sets. Despite repeated attempts the state electricity board didn't yield to their demand. Hence there was a massive protest on the part of villagers along Ahmednagar – Pune highway. Villagers and school children of *Ralegan Siddhi* demanding electricity blocked the road. Police opened firing which killed four people and school children participating in the struggle were hurt. The result of this was sanctioning of Rs. 350 crore (Rs.38 crore specifically for Ahmednagar district) by the state to set up electricity substations.

**Glossary**

**Crore** = Ten Million
**Daliit** = Scheduled Caste ( literally 'oppressed')
**Gram Panchayat** = Village Council
**Gramsabha** = Meetins of the Village Council
**Krishi Pandhari** = Nomenclature of the State sponsored Village agricultural development scheme
**Krishna Paani Yojana** = A Nomenclature of the lift irrigation scheme at *Ralegan Siddhi*
**Lakh** = 100,000 or one hundred thousand
**Masjid** = Mosque
**MDGs** = Millenium Development Goals
**Nalla Bunding** = A small mud-built water storage tank
**Panchasutri** = Five Point Programme
**Pucca House** = House made of bricks and cement
**S.H.G.** = Self Help Group
**Shramadan** = Voluntary labour
**Ton** = Ten Quintals
**Zilla Parishad** = District Council

## REFERENCES


Talule, D. 2010. Why are Indian Farmers Resorting to Suicide? An Empirical Case of the State of Maharashtra, A Paper Presented at the International Conference on Applied Economics and Time Series Econometrics, IBS, Hyderebad, 16th and17thApril, 2010, Revised version published in the Indian Journal of Current Trends in Managerial Sciences, Voi.III, No.I., PP-25-73.

Khurana, M.R. 2005. Common Property Resources, Peoples' Participation and Sustainable Development: A Study of Sukhomajiri, Panjab University Research Journal (Arts), Vol. XXXII, PP.25-63.

----------, (2009), Agricultural Diversification in Panjab and Beyond, Panjab University Research Journal (Arts), Vol. XXXVI, No. IandII, April-Oct. 2009, PP. 47-89.

Sisodia, Y.S. 2006. Peoples Participation in Gramsambhas, Kurukshetra, Vol. 54-No.7, pp.34-39.

YASHADA, 2006. Impact of Effective Watershed Management on the Development of a Village.

Gazetteer of Ahmednagar District (1976): Published by executive Editor and Secretary Gazetteers Department, Govt. of Maharashtra, Bombay.

Tushaar Shah, Barbara Van Koppen 2006. Is India Ripe for Integreted Water Resources Management? Filling Water Policy to Nation Development Context, Economic and Political Weekly, Vol. XLI-31, Pp.3413-21.

Mehta, A.K. and Satpathy, T. 2008. Escaping Poverty: The Ralegan Siddhi Case, IIPA, New Delhi, Working Paper No.119. Ahmednagar District (1971), 'Census Handbook, 1971', In Ministry of Home Affairs Census of India, 1971, New Delhi, GoI.

---------- (1991), ----------, 1991, ----------, 1991, ----------

---------- (2001), ----------, 2001, ----------, 2001, ----------

Pangare, G. and Pangare, V. 1992. From Poverty to Plenty: The Story of *Ralegan Siddhi*, New Delhi, INTACH. Government of Maharashtra (nd), '*Ralegan Siddhi* Watershed Development Programme', Mumbai: Line Departments of Jal Sandharan, Government of Maharashtra and *Ralegan Siddhi*.


*******