

Strengthening Local Self- Governments to integrate Biodiversity conservation in the local development plans through Participatory Action

(Supported by National Biodiversity Authority, India)



Report submitted to:
National Biodiversity Authority
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Report submitted by:
Community Agrobiodiversity centre
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Suma T R
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INTRODUCTION

The National Biodiversity Authority (NBA) of India has sanctioned a project to MS Swaminathan Research foundation to strengthen the local self governments to integrate biodiversity conservation in the local development plans through Participatory action. The Project was implemented in 9 selected Panchayaths of the district on a pilot basis. This report summaries the effort taken to implement the project, the key results, achievements and outcomes.

The Advisory Committee

A project advisory committee was formed prior to the implementation, under the Chairmanship of Mr. G. Balagopal IAS (Rtd), at district level along with members, Dr. Oommen V Oommen, Chairman, KSBB, Dr. N. Anilkumar, Senior Director, MSSRF, Ms. T. Usha Kumari, District Panchayath President and Mr. Naser N.K. President of Association of Panchayath Presidents of Wayanad, for the smooth implementation instead of conduct

Project aims to assist the implementation of Indian Biological Diversity Act 2002 in Wayanad district of Kerala.

This project indented to strengthen the Biodiversity Management Committee of 9 selected Grama Panchayaths of Wayanad.

Wayanad is the only district in Kerala, which completed formation of BMCs and PBRs in all Panchayaths.

THE PROJECT

The one year project aims to assist the implementation of Indian Biological Diversity Act 2002 in Wayanad district of Kerala. This is important to strengthen the institutional frameworks to ensure effective implementation of the Act. The role of Panchayath level BMCs are very crucial for successful implementation of the Act. Wayanad is the only district in Kerala, which completed formation of BMCs and PBRs in all Panchayaths. The baseline study done by MSSRF three years back on the functioning of BMCs showed a clear need of empowering them to take the leadership of biodiversity governance at local level.

Wayanad is one of the biodiversity hotspots in Western Ghats of Kerala. It is one of the four districts listed as the "most vulnerable to climate change" in Kerala. This agrarian district is facing productivity issues due to land fragmentation, unscientific development and land use practices. So, integrating sustainability to the local development agenda is essential for continuous agricultural production of Wayanad region. As a biodiversity hot sport, the sustainable development of this region is always embedded with biodiversity governance.

This project indented to strengthen the Biodiversity Management Committees of 9 selected Grama Panchayaths of Wayanad. The activities of the project are designed to empower the local self government to take decisions on biodiversity governance through awareness building on existing legislative frame works in India.

This project also aim to build awareness of the people at grass roots on the need of sustainable biodiversity management and to integrate that in the local development planning.

This has been done through one year sensitization programmes to the Panchayath board members of Wayanad on BD act 2002 and its institutional frame works to implement it. The sensitization process designed in a participatory mode to probe the community need of biodiversity governance and to integrate the jointly identified biodiversity related issues of the region in to the developmental projects.



OBJECTIVES

1. To empower the BMCs as a body taking lead role in sustainable biodiversity management
2. Develop plan and implement at least one special project in the area of sustainable biodiversity management under BMC.
3. To monitor the resource use pattern of local development plans of the respective Panchayaths.
4. Integrate a landscape based natural resource management approach to the local development planning





THE PROJECT ACTIVITIES

Awareness building on BD Act and documenting the process of formation of new BMCs at 9 selected Panchayaths of Wayanad was the prime activity of the project. The awareness programmes were divided in to four training sessions at each Panchayath. The topics for the scheduled training sessions were:

1. Need of integrating sustainable natural resource management principles in to local level development planning. Present status of natural resources and usage pattern in respective Panchayaths (Water, land, forest, biodiversity etc.) Responsibilities and powers vested in Local self –governments in natural resource management.
2. Awareness building on Acts, Rules and institutions pertaining to the Conservation of Biodiversity at large.
3. Awareness building on the Indian Biological Diversity Act 2002, Rules and institutional frame work to implement the act (NBA, SBBs, BMCs).
4. Roles, responsibilities and scope of BMCs in local level sustainable development. The scope and use of PBR in local development and in protecting community rights on biological diversity (IPR, Access and benefit sharing).

The selected local self governments for this programme are Kalpetta Municipality, Meppadi, Pozhuthana, Padinjarathara, Thavinjal, Thirunelli, Pulpalli, Poothadi, and Noolpazha Grama Panchayaths.

Each training sessions are designed in two sessions. The first session was a presentation on the topic by an expert. The second session was a participatory exercise to identify key environmental issues of the Panchayath and to jointly seek the solutions of them. These exercise to small project proposals in each Panchayaths.

DISTRICT LEVEL WORKSHOPS

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The project has conducted three district level seminars for all Panchayath presidents and secretaries on BD Act. It was crucial to convince them on the need of the project and training sessions to implement it in the Panchayaths.



PROJECT LAUNCHING PROGRAMME:

The project has officially launched on 2016 December 3 by district Panchayath president Smt. Ushakumari. 50 participants from 19 Panchayaths of Wayanad has been attended the workshop. Panchayath presidents, Secretaries and BMC members were invited to the programme to introduce the project and Biological Diversity Act 2002. The inaugural session was presided over by Dr. N. Anilkumar, Senior Director M. S. Swaminathan Research Foundation. Mr. Balagopal IAS, and Dr. V. Balakrishnan, Head MSSRF, has addressed the gathering. Ms. Suma TR, Social Scientist MSSRF has introduced the project, BD act and roles and responsibilities of BMCs. The Panchayath representatives shared the present status of BMCs at their Panchayath. The afternoon session was a group discussion on the possibilities of strengthened BMCs at Wayanad district. These discussions paved the way for implementing the programme.

Workshop for BMCs and interaction with representatives of Kerala State Biodiversity Board.

A two day workshop has organized for BMC members from all 26 local Self Governments of Wayanad during 16th and 17th May 2017. The primary objective of this programme was to share the experience of implementing the project with the local Panchayaths and to sensitize other BMCs on their roles and responsibilities. The intention of this workshop was also to initiate discussion among the BMCS of Wayanad on the common environmental issues identified by Panchayath workshops. 63 individuals participated in this programme.

Dr. Oommen V Oommen, Chairmen of Kerala State Biodiversity Board inaugurated the programme. Dr. Dinesh Cheruvatt, Member Secretary, Kerala state Biodiversity Board, started the workshop sessions by presenting the importance of BD Act. Dr. S. Rajasekharan, Senior programme officer Kerala State Biodiversity Board has presented the roles and responsibilities of BMCs. In the evening session the Panchayath representatives presented the general environmental issues at each Panchayath and the huddles they face to functionalize BMCs activities. They could present their issues to KSBB representatives. One of the major result of this programme was that Thirunelly Panchayath BMC decided to claim Levi on the timber extraction by forest department from their Panchayath.

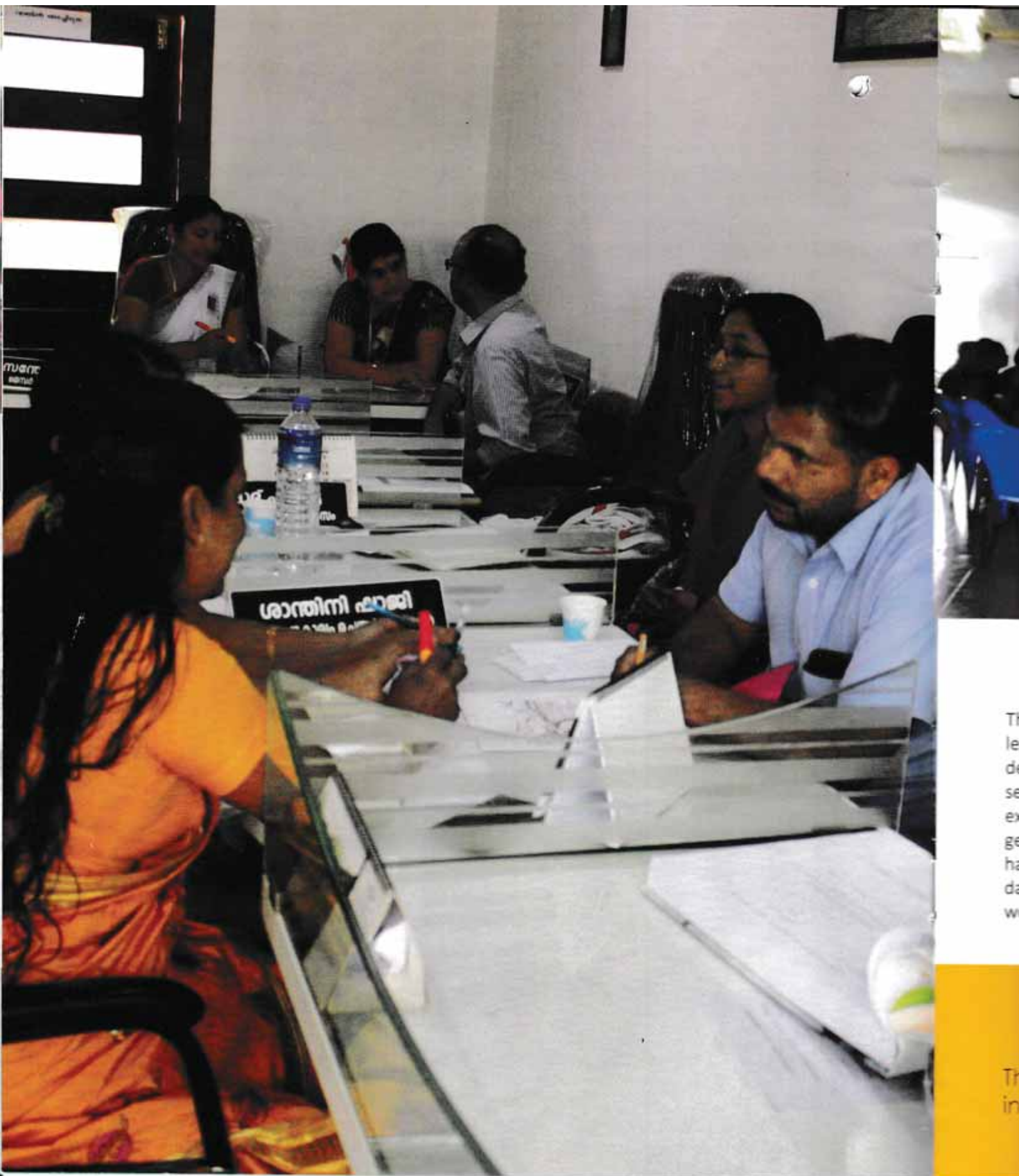
Second day Mr. Govindan, faculty of KILA has handled a session on Panchayati Raj Act and the roles and responsibilities vested on Panchayath to protect and sustainably govern the natural resources. This session was to bring the minds of the Panchayath representatives towards the powers vested in them to solve the issues around them.

Dr. C. P. Shaji has presented the status of Wayanad's wetlands and waterways through fish diversity. He explained the life cycle of different fish species of Wayanad and their status and distribution in Wayanad. He explained the drastic changes that going on to different ecosystems of Wayanad and the impact of that change on the life forms depending on these micro ecosystems. This in turn, affects the drinking water availability of human populations and agriculture of the region.

The concluding session was discussions on Wayanad's special environmental issues and the role of BMCs to address it. Mr. Pradeep C. H, BMC coordinator of Edavaka Panchayath moderated the discussions. The workshop concluded by the joint opinion that a coordinated action of Wayanad's BMCs are needed in the unique agro-ecological landscape of Wayanad. The workshop requested to form a joint BMC under Wayanad district Panchayath to coordinate Panchayath level BMC activities. They opined that it is crucial to plan biodiversity conservation activities for the district. Conservation of wetlands, the drainage systems of Kabani River and the forest ecosystems of Wayanad was identified as the areas where immediate district level action is required.

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Panchayath Processes



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PANCHAYATH VISE PROCESSES

The project was planned to have 4 different training sessions to each selected Panchayaths on the legal rights and responsibilities of Panchayaths over their Biodiversity. The training sessions are indentured to identify the key environmental issues at each Panchayath. Each one of the four training sessions where half day programme. It included a key presentation on the pre-decided topic by an expert from MSSRF for one hour and a two hour discussion on the issues in relation with the law and general environmental issues of the Panchayath. In second and third workshops the discussion part has developed to planning of actions for BMCs. The four training sessions has been conducted in two days in each Panchayath as two half day sessions. The average participation of Panchayath workshops were 19 including Panchayath board member and BMC members.

4 different training sessions

The average participation of Panchayath 19 including Panchayath board member and BMC members



1. Meppadi Grama Panchayath

Meppady Panchayath has 22 wards and 22 ward members. The two full day sessions has been attended by 28 and 24 individuals. As Meppady is a plantation area, pollution from the pesticide usage at tea plantations is a major concern of all. But the Panchayath could not find a way to address this issue under the powers of Panchayath and BMC. Wild animal menace and drinking water issue are the key issues raised by them. BMC has planned for a joint meeting with forest department to strengthen the Vana Samrakshana Samithies under joint forest management and to chanelize money and other mechanisms to control wild animal menace. Meppady Panchayath has very less areas under wetland rice cultivation. Thrikkaipetta is one of the only three villages in this Panchayath having rice cultivation. So they decided to develop Thrikkaipetta as a community seed repository by promoting cultivation of traditional rice and vegetable cultivation as a Panchayath funded project.

BMC in Meppady Panchayath has not met before this workshop. Panchayath does not have any knowledge on the duties of BMCs and the relevance of its working. For an empowered BMC at Meppady still more efforts are needed.

The issues identified by the Panchayath in priority

1. Soil and water Pollution due to over usage of pesticides and chemicals.
2. Wild Animal menace
3. Drinking Water scarcity (forest degradation, mining)
4. Draught and climate change
5. Filling and conversion of wetlands
6. Plastic and other Solid waste
7. Degradation of traditional agricultural practices (loosing traditional knowledge systems)
8. Increasing incidents of deceases (health hazards)
9. Forest destruction
10. Unscientific constructions and degradation of ecosystems' (Connectivity)
11. Degradation of natural resources
12. Degrading water sources. Their conservation



2. Pulpally Gramapanchayath

Pulpally Gramapanchayath has 20 wards. The BMC of Pulpally is not met before the project intervention starts. The BMC members were not aware about their membership in BMC. The four sessions of training has conducted in two days in Pulpally Panchayath. The first session was attended by 15 Panchayath members and 5 BMC members. The second training was attended by 18 Panchayath members and 6 BMC members. Two of the BMC members never attended the trainings and the Panchayath seeks possibilities to remove them and replace with new members.

Pulpally being the dry zone of Wayanad is facing acute issues of ground water depletion. Majority of the population are migrants and they face problems of loss of soil fertility due to unscientific farming. They were identified water scarcity, soil fertility depletion and wild animal menace are as key environmental issues in the Panchayath. They developed and submitted two such projects. They have decided to develop two villages called Pakkam and Chekadi where all traditional tribal farmers live, into heritage agricultural villages.

Pulpally wanted to conserve their surface water sources. 'Kadamam thodu' is the main stream flowing through the Panchayath. In the processes, with the technical support of MSSRF they mapped all the streams drains to Kadaman Thadu. It was a participatory status analysis of Kadaman Thodu. They Prepared drainage map including land use and biodiversity with the help of MSSRF, Farmers, Scientist, Collage students BMC members and Mapping experts. This data base and maps has been presented to working groups and developed project proposal for conservation of Kadaman Thodu.

The key environmental issues identified by each Panchayath in the processes

Pulpally

1. Conservation of streams and rivulets
2. Conversion of paddy fields
3. Unscientific use of chemical fertilizers
4. Human - wild life conflict ,
5. Unscientific farming
6. Conservation of native plant species
7. Deforestation
8. Unscientific construction activities, earth moving land filling.
9. Population growth
10. Mono-crop plantations under forest department (teak)
11. Disappearance of traditional seed diversity
12. conservation of sacred grooves
13. Ignorance on the native biodiversity

3. Kalpetta Municipality

Three introductory meetings were conducted at Kalpetta Municipality as part of their Municipal board meetings. 13, 15 and 18 members were present in each of the meetings. Only one workshop with 17 members could be conducted at Kalpetta due to changes in chair person and other key positions in between. The BMC is still inactive. There should be further steps to be taken to strengthen them. Municipality BMC has developed three proposals among them two of them got rejected during the planning processes at the municipality level. One on establishing a community seed bank at Puthorvayal village has been submitted to the District planning Committee and is still under processes to be sanctioned.

The key environmental issues identified by Municipality

Kalpetta Municipality

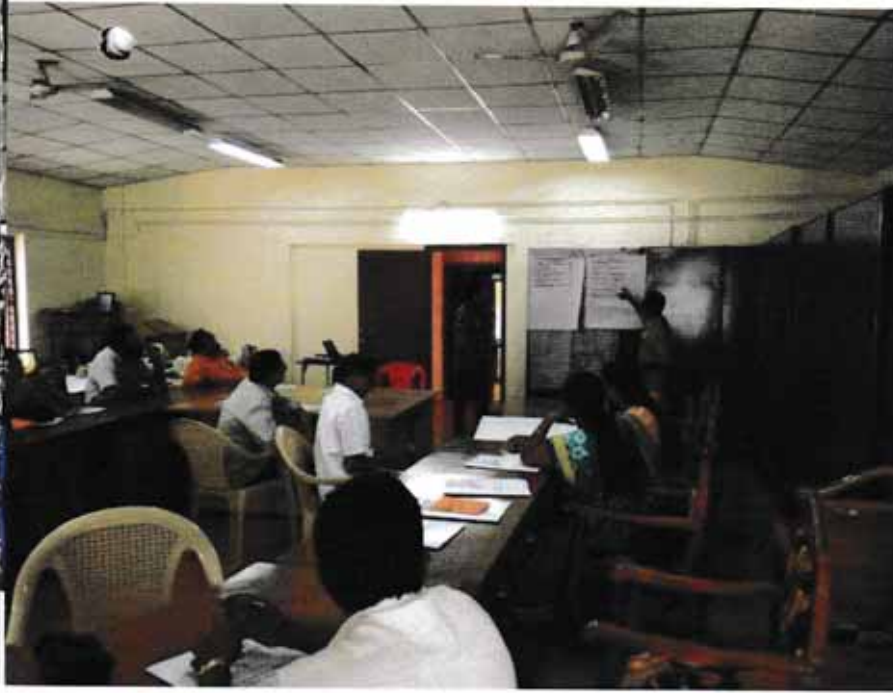
1. Solid waste management
2. Pollution in streams
3. Reducing tree cover
4. Protection of Rivers and streams
5. Unscientific constructions
6. Shrinking farm lands

4. Noolpuzha Grama Panchayaths

Noolpuzha has conducted two different one day workshops to complete the four sessions. 20 and 18 individuals including Panchayath members and BMC members participated in the workshops. Noolpuzha is the gramapanchayath with 51 % of tribal population and 13 wards out of 17 is sharing boundary with Wayanad Wildlife Sanctuary. The BMC of Noolpuzha is an active BMC and they have the medicinal plant conservation project by Kerala State Biodiversity Board.

Paddy field conservation, loss of traditional crop diversity, over usage of chemical pesticides and fertilizers and wild animal attack were the key environmental issues identified by them. On the basis of this they developed a project for supporting traditional farmers those who are conserving crop diversity especially rice.





Noolpuzha Panchayath

1. Conservation of native forest ecosystems
2. Conservation of traditional seed diversity
3. Conservation of wetlands and head ponds
4. Decreasing traditional farming practices and knowledge associated
5. Invasive species
6. Conservation of medicinal plant diversity
7. Over usage of pesticides and chemical fertilizers
8. Wild animal menace
9. Prevention of soil erosion
10. Exploitation of environment due to unscientific development
11. Overexploitation of forest resources
12. Conservation of native cattle and bird species
13. Wetland conversion and over usage of pesticide



5. Thavinhal Grama Panchayath

Thavinjal Panchayath has 22 wards and 4 outside members to BMC other than the board members. BMC is active and aware about BD act and responsibilities of BMCs. They have actively participated in the training workshops. A full day session and two half day sessions were conducted at Thavinjal to complete the processes in the project. 20, 18 and 21 individuals participated in the three workshops.

They identified some major areas where BMC has to intervene. They are Natural water resource conservation, quarrying and mining, traditional crop variety conservation, awareness building on chemical fertilizer and pesticide application. Among identified issues they have formulated one project proposal for conducting annual Panchayath level seed festival for awareness building among farmers and for traditional seed exhibition and exchange among farmers.

The key environmental issues identified by the Panchayath in the processes

Thavinjal

1. Water conservation activities
2. Solid waste
3. over usage of chemical fertilizers and pesticides
4. unscientific construction activities
5. regulation on mining activities
6. rice cultivation
7. Human wildlife conflict
8. erosion of agro-biodiversity
9. Biodiversity depletion
10. Organic farming promotion
11. Increasing diseases
12. peoples depleting knowledge base on micro ecosystems
13. Human wildlife conflict
14. conservation of traditional knowledge systems



6. Pozhuthana Grama Panchayath

Pozhuthana Grama Panchayath has only 13 wards. There is an active BMC in the Panchayath. Two full day workshops were organized to cover four sessions in the Panchayath to complete the process. All ward members and BMC members participated in the workshops. They identified some key issues which are given below. They decided to intervene the NREGA programme planning in order to reduce the environmental damage caused by the unscientific works undertaken by NREGA to clear river banks.

The key environmental issues identified by the Panchayath in the process

Pozhuthana

1. Conservation of Agro biodiversity
2. conservation of medicinal plants
3. wetland conservation
4. Conservation of Grass lands and other ecosystems
5. Pesticide usage
6. Conservation of ecological heritage sites
7. Solid waste treatment including plastic
8. Conservation of fresh water sources
9. Exploitation of streams by over usage of Water
10. propagation of organic farming
11. conservation of biodiversity (fishes and small mammals)



7. Poothadi Grama Panchayath

Poothadi Panchayath has 22 wards. The Poothadi BMC is active. Two full day workshops organized to cover four sessions in the Panchayath. 19 and 21 members actively participated in the two training workshops. Another half day workshop organized for farmer's representatives on BD act and to create a support system to implement biodiversity conservation activities in the Panchayath.

The BMC have undertaken two major works; wetland conservation and rejuvenation of streams and rivulets. They have conducted biodiversity Gramasabhas in all the wards to generate peoples support for conducting the above activities. Part of this they have formed peoples' supporting committees in all the wards to initiate conservation action.

Poothadi

1. Conservation of Wetlands
2. Conservation of streams and rivulet and other water sources
3. Promotion of rice farming
4. Conservation of native rice diversity
5. Human animal conflict
6. Unscientific constructions
7. Drinking water
8. Expansion of dry Zone and change in temperature levels



8.Thirunelli Grama Panchayath

Thirunelli Panchayath has 17 wards. The BMC in the Panchayath is very active. Two full day workshops organized to cover four sessions in the Panchayath. 15 and 16 members actively participated in the two training workshops.

The BMC has taken initiative to conduct Seed Festival in the Panchayath. Also they started an interesting action, to charge a levi for BMC for the extraction of timbers from Forest by the forest department. They also started discussions on regulatory measures on over extraction of medicinal plants from the Panchayath. Key action points undertaken by BMC are as follows.

Thirunelli

1. Restoration of native forest ecosystems
2. Promotion of wetland rice cultivation
3. Promotion of organic farming
4. Human animal conflict
5. Sustainable usage of medicinal plants
6. Regulate and promote sustainable tourism



9. Padinjarathara Grama Panchayath

Padinjarathara Panchayath has 16 wards. The BMC in the Panchayath is not very active. We could conduct only one full day workshops for the BMC. 16 members participated in the workshop. The BMC decided to conduct a study on the impact of downstream water flow and agricultural situation after the construction of the Banasura earthen dam. Key areas identified for priority are given below.

Padinjarathara

1. Promotion of organic farming
2. Conservation of native seed diversity
3. Wild life menace
4. Conservation of Kappukunnu Stream
5. Conservation of Varambetta River
6. Over exploitation of drinking Water (ground water)
7. Bann plastic
8. Wetland conservation
9. Illegal mining
10. Forest fire
11. Conservation of trees and hills
12. Invasive species in farmlands
13. Forest conservation
14. Conservation of traditional knowledge on biodiversity
15. Tree cover in farm lands
16. Over usage of pesticides



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9 proposals were approved by the Panchayath level planning processes and submitted to District Development Planning Committee. Among them 5 of them got sanction

Each Panchayath has prioritized the issues identified according to the urgency to be addressed. They have developed it as a key area of intervention for the BMCs in the coming years. Each Panchayath has developed at least one proposal for addressing this issue by including it in to the development plans. Each Panchayath developed one or two proposal concepts in the meetings. Some of the issues they identified will be addressed through existing programmes and projects like Haritha Kerala Mission, NREGs etc. 9 such proposals were approved by the Panchayath level planning processes and submitted to District Development Planning Committee. Among them 5 of them got sanction. Two of the projects are decided to implement as part of the agricultural projects. And two of them got rejected. Two projects were proposed from Vythiri Panchayath. Vythiri was not a selected Panchayath for this project. But they participated in the district level workshop and from that they motivated and to develop proposals and guidance.

THE PROJECTS DEVELOPED AND SUBMITTED

Panchayath	Project	Status
Wayanad District Panchayath	Wayanad Community Seed Festival	Sanctioned
Pulpally	Heritage agricultural village – Pakkam Chekadi	Sanctioned implementing
	Mapping and conservation of Kadaman thodu (Kadaman stream)	Sanctioned and implementing
Noolpuzha	Conservation of traditional rice varieties	Sanctioned implementing
Kalpetta	Punargeny – The conservation of streams from pollution of encroachments in Kalpetta city	Rejected at Municipality level
	Community Seed Bank	In processes
	Greening Kalpetta	Rejected in the Municipality level
Meppady	Community seed Bank	Rejected at Panchayath level but added as an activity of agricultural project
Vythiri	Land use study	Sanctioned
	Mapping and Conservation of streams	Sanctioned



RESULT SHARING WORKSHOP

The result sharing and closing workshop of the one year activities as part of this project was conducted during 18th and 19th of August 2017. 75 individuals including Panchayath representatives, BMC members, environmental activists and scientists participated in the workshop. The objectives of this workshop were to share the results of the one year activities and to plan future activities in biodiversity conservation of Wayanad. As per the decisions in the previous workshop the agenda set was to,

1. Sharing the results of the one year project
2. Discussion on developing a strategy for Kabani River basin conservation
3. Discussion on initiating the processes of developing a biodiversity conservation and sustainable development strategy for Wayanad.

The workshop inaugurated by honorable district collector Sri. S. Suhas IAS on 18th of August 2017. Dr. V. Balakrishnan Head, Community Agrobiodiversity Centre of MSSRF, welcomed the gathering. Dr. Balakrishna Pisupathi, Vice Chancellor of Trans Disciplinary University, Bangalore, has delivered the key note address. He highlighted the need for twining the concerns in biodiversity conservation and the relevant SDGs to Kerala, which to be achieved by 2030. He said, "Thoughtful and well designed local level action plans and interventions that are biodiversity compatible are necessary to achieve the global sustainable Development Goals. This is an opportunity for a district like Wayanad where so much work has been progressing towards sustainable resource management to set up a long term strategy for sustainable development, based on SDGs. It will be a model for the global initiatives".

P. Ushakumari, president, District Panchayath, presided over the function said that "we have been talking about biodiversity conservation for a long time and this is the time for action and district Panchayath will be in the leadership to take over the responsibility, identifying it as the need of the hour". District Collector said "ecological restoration and biodiversity conservation is the base for Wayanad's sustainable development". He promised the necessary financial and technical support of district administration for local Panchayths to develop and implement appropriate projects.



Session I: structural and policy gaps in implementing the Biological Diversity Act 2001. (12-1pm)

In the first session the learning's of this one year project has been shared with the Panchayath representatives as a presentation by the project coordinator, Suma T R. As part of the participatory exercise the Panchayaths identified the key environmental issues in their Panchayath. 4 Panchayths integrated these concerns into ongoing programmes and projects such as NREGS, Haritha Kerala Mission etc. 4 Panchayaths developed separate projects setting apart money from the local development plans. Altogether seven project plans were originated from this exercise. A research study was undertaken to identify the gaps in implementing the BD Act 2002 in Wayanad as part of this project. The results of the research showed improvement in awareness among Panchayath presidents, Panchayath members, BMC members and general public on the Act. But this improvement is still limited to 30 % of the Panchayath representatives and BMCs. 35% of the Panchayath presidents are still not aware of the role and powers of BMCs. There were also structural and functional gaps in the administration and implementation levels, which prevents the effective implementation of BD Act at the ground level. The recommendation formulated from the study has been discussed in detail and fine tuned to submit to the Government. This Session was chaired by Shri. Balagopal IAS, former consultant to UN.



Session II: Ecology of Wayanad and Kabani Basin (2.30 – 6pm)

Second session on the ecology of Wayanad was handled by Prof. E. Kunhikrishnan, a noted environmentalist of Kerala. He emphasized on the historical and political reasons of ecological degradation of this unique landscape. It started with exploitation of forest resources and the expansion of plantations of coffee and tea by British. It continued even by our democratic Governments by promoting mono cropping plantations. These unscientific interventions have damaged the ecological balance of Wayanad and its agrarian economy. The life and livelihood of original inhabitants – the Adivasis- of the district is also adversely affected by this kind of development pattern. The kind of tourism which is being promoted in Wayanad is also destructive. We should be able to develop and promote sustainable tourism initiatives based on the cultural and natural heritage of Wayanad.

Drainage systems of Wayanad and Kabani basin was handled by Shri P.U Das, District Soil Conservation officer. He said Wayanad was not at all a water deficit district. It is a monsoon dependent agriculture district. This year Wayanad received 56% deficit rainfall. If the pattern continues, Wayanad will be in acute drinking water crisis in the coming years. Kabani is the major river drains Wayanad. Any change in Kabani basin will impact the ecology, environment, development and livelihood of people living in Wayanad. Restoration of Wetland ecosystems of Wayanad and conservation of small streams and rivulets is the primary task ahead to bring back the micro-climate of the district.

Second Day (19-08-2017)

The morning session was with presentations from experts who have done species level studies on Wayanad. The session indented to harvest the research done on biodiversity of Wayanad as a base for the discussion on developing the conservation strategy for the district. This session followed with a panel discussion of LSGD representatives, BMC members, activists and experts from Wayanad. This session dealt with possible biodiversity conservation and sustainable development strategies and action plans for Wayanad.



Session III: Fauna, Flora, and Agrobiodiversity of Wayanad: Species, Distribution, Ecosystems and threats

Dr. N. Anil Kumar, Senior Director M SSRF chaired the session. He said "Wayanad is one of the most biologically rich districts in Kerala. Wayanad also has high food diversity because of many ethnic communities. The task in front of us is to highlight Wayanad as a biodiversity friendly agriculture district. People's attitude towards biodiversity should be changed. As per various records Kerala is one of the Indian states that have high biodiversity erosion because of high development progress. Though Kerala is fore front in many social development aspects, it is less conscious in protecting the biodiversity available in the state's territory. The challenge is to create a mindset change of people towards development. As the people of Kerala are educated and set models for the world in many social development aspects it can also possible for us to integrate sustainability in to our development thinking.

Dr. Anil Zachariah, Assistant director, Department of veterinary and animal Husbandry, Wayanad, presented the diversity and ecosystem challenges of Amphibians of Wayanad. Ancestral organisms of present day amphibian evolved some 36 million years back when some of the fish species started moving from sea to land. Amphebian as a community survived most of the mass extinctions happened on earth in the past. But today they are facing several threats globally. Many species are not able to breed due to change in rainfall pattern and increasing drought in many parts of the world. Increasing global temperature also create hurdles for amphibians to survive. The unique ecological conditions in Wayanad resulted in high diversity of amphibians in the district. Globally 41% of amphibians are facing the risk of extinction. Wayanad is also not an exception. Land use change, intensive use of pesticides and loss of micro habitat are major cause of decline in frog population in Wyanad. Zero budget and ecological farming should be promoted in Wayanad to hinder the loss of micro habitats of

organisms like frogs. Use of agro-chemicals like Urea in farmlands should also be regulated to make soils more organic in nature.

Mr. C.K Vishnudas, an ecologist and ornithologist from Hume Centre for ecology and wildlife biology presented the 'Bird diversity and changing ecosystems of Wayanad'. He said Wayanad is home to 315 species of birds. Wayanad has 14 endemic species of birds including Banasura Chilappan which is confined to the high latitude mountains of Wayanad and 65 migrant species. These birds are spread over the diverse ecosystems of Wayanad. He mentioned Wayanad's 5 major ecosystem categories. Mountain Forest ecosystems, Mountain grasslands, mid elevation rain forests and deciduous forests, Paddy fields and wetlands and Coffee based agro-ecosystems. Forest fire and invasion of exotic species and tourism are the major threats faced in the mountain ecosystems which are home to many endemic species. Mid land forests face threats from human encroachments, mining, tourism and human animal conflicts. Wetland ecosystems are the most threatened ecosystem category in Wayanad due to high level of land conversion, shift in cropping pattern and general climate change. Birds in wetland ecosystems have reduced in large numbers and are now confined to few pockets where farmers follow organic agriculture. Coffee based integrated farming systems is the most appropriate economically benefitting enterprise for farmers in Wayanad as it can support income as well as ensure conservation of bio-diversity.

He also mentioned the need of introducing long term biodiversity monitoring system based on geospatial tools to plan species and ecosystem level conservation activities.

Dr. Ratheesh Narayanan, Botanist and Asst. Professor of Payyannoor College presented the 'status and distribution of flowering plants in Wayanad'. He said 2385 flowering plants were recorded in Wayanad. It includes 158 red data species. 1322 grass species, 412 tree species, 521 shrubs and 130 species of climbers comprises the floral world of Wayanad. There are 14 species of plants that having names ending in "Wyanadica" that shows the wealth of floral diversity of Wayanad. *Jerdonia indica* is a single genus plant that is confined into Wayanad region. 29% of the Western Ghats endemic plants and 71% of the non-endemic plants of Western Ghats are recorded in Wayanad.

Dr. V. Balakrishnan, head M S Swaminathan Research Foundation, presented the 'Agrobiodiversity and wild edible plants of Wayanad'. Wayanad has 350 species of wild edible plants and 12 species of medicinal rice varieties. 29 varieties of indigenous plantains, 35 varieties of wild mushrooms, 95 varieties of wild edibles leaves, and 26 varieties of dioscorea are being used in Wayanad. Most of these are used by the indigenous communities of Wayanad and they have gained vast knowledge on its usage, cultivation parameters and seasonal abundance etc. So conservation of these unknown heritages is very important for our future food security he concluded.

Mr. V. V. Sivan, Senior Scientist at MSSRF presented 'The diversity of medicinal plants in Wayanad and the threats'. Medicinal plant industry is using about 1700 plants in India and produce and market more than 10,000 medicines in India. However 93% of these medicinal plants under extinction due to heavy and unsustainable collection practices, changes in habitat and climate change. Un-scientific bark extraction leads to local extinction of many medicinal tree species in the region. Uprooting the medicinal shrubs is causing complete erosion of many plants in many areas. So there should sustainable harvest of medicinal plants in order to maintain a Germplasm.

Dr. Jafer Pallot, senior scientist, Zoological survey of India on reptiles and small mammals of Wayanad, Dr Arun Zhakaria on large mammals and forest ecosystems of Wayanad and Dr. C.P Shaji on fish diversity of Wayanad were not able to do their presentations. But, they have agreed to share their knowledge and extend support to develop the strategy and action plan.



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Session IV: Developing the strategy, the concluding session (3 to 5 pm on 18th August)

The concluding session presided over by Shri. Balagopal, I.A.S. This session held discussions on the required methods and approaches for developing the strategy and plan for biodiversity conservation. This session discussed and developed a broad plan for developing biodiversity action plan. The panelists included,

1. Dr. Balakrishna Pisupati, Vice Chancellor, Trans-disciplinary University, Bangalore
2. Smt. T. Ushakumari, President, Wayanad District Panchayath
3. Dr. N. Anil Kumar, Senior Director, MSSRF
4. Prof. E. Kunzhikrishanan
5. Mr. N Badusha, President, Wayanad Prakruthi Samrakshana Samithi
6. Ms. Suprabha Seshan, Gurukula Botanical Garden,
7. Smt. Sakundala Shanmughan, President, Kalpetta Block Panchayath.
8. Smt. Usha Vijayan, President, Edavaka Panchayath
9. Shri. Joseph, BMC Member, Thirunelly Panchayath
10. Shri. Hariharan, vice president, Muppainad Panchayath
11. Shri. Vijayan, BMC Member, Ambalavayal Panchayath.
12. Mr. Stanly, Farmer representative

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The decisions of the workshop were:

The present Working Group will have to organize:

1. A drafting subcommittee under the Chairmanship of Dr. Balakrishna Pisupathy to prepare the Strategy and Action plan
2. A subcommittee to examine and plan the actions and strategies related to forest ecosystems
3. A subcommittee to examine and plan the actions and strategies related to wetlands and agro ecosystems
4. A subcommittee to examine and plan the actions and strategies related to drainage systems of Wayanad and associated biodiversity.

The present Working Group to take steps on:

5. Consolidating the information on available biodiversity database of Wayanad
6. Monitoring and evaluating the progress. The full panel has to sit once for each biodiversity area and to discuss it in detail.
7. Coordinating with the Subcommittees. Each subcommittees can have at least two sittings
8. Organize at the earliest, one block level meeting with the available panel members and Panchayath representatives to finalize the decisions and plan.

Also ensure to have special invitees in the above three panels:

Sri. C. K. Saseendran MLA, Kalpetta, Sri. O. R. Kelu, MLA, Mananthavadi, Sri, I. C. Balakrishnan, MLA, Sulthan Bathery, Dr. Pramod. G. Krishnan, CCF, Wild Life Northern Circle, Kerala Forest department, Sri. N. Suhas, IAS, District Collector Wayanad, Sri. Nasar, President, Panchayath presidents association, Smt. Beena Vijayan, president Meenangadi Panchayath, Smt. Bindhu Jose, Standing Committee chair person development, Kalpetta Municipality and the block Panchath presidents of Wayanad will be the invitees to these panels.

PROJECT OUTCOMES

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Key outcomes and achievements	
1	As part of the participatory exercise the Panchayaths identified the key environmental issues in their Panchayath.
2	4 Panchayaths integrated these concerns into ongoing programmes and projects such as NREGS, Haritha Kerala Mission etc.
3	7 Panchayaths developed 9 separate projects setting apart money from the local development plans and district plans
4	A research study was undertaken to identify the gaps in implementing the BD Act 2002 in Wayanad as part of this project
5	The District Panchayath decided to lead agrobiodiversity conservation in the district and decided to conduct the Wayanad Community Seed Festival.
6	A committee constituted for developing a broad plan for making Wayanad a biodiversity friendly agriculture district with Dr. Pishupathi, VC, Transdisciplinary University as Chair.
7	One Panchayath conducted Biodiversity Gramasabhas for the first time
8	178 Grama panchayath Panchayath members sensitized on BD act and about BMC.
9	A platform is being developed to constitute the district level BMC for Wayanad
10	The Research findings on policy issues were submitted to state government through the Subcommittee of State legislative Assembly on Biodiversity.

STATEMENT OF EXPENITURE

S.no	Pariculatrs	Budget	Fund Received	Expenses	Balance
1	Five training sessioneach for aiii8 panchayath and one municipality	180,000	135,000	215,766	-80,766.00
2	Human resources	240,000	180,000	268,413	-88,413.00
3	Documentation,printing and stationery	26,000	19,500	5,803	13,697.00
4	Travel	54,000	40,500	56,505	-16,005.00
	Bank interest		3,662		3,662.00
	TOTAL	500,000	378,662	546,487	-167,825

CONCLUSION

Implementation of this unique project supported by National Biodiversity Authority(NBA) has made a considerable impact on the biodiversity conservation in the region. One success factor of the project is the active involvement of the state Biodiversity board and the support from Wayanad district administration in all aspects of the process. We could see many active Panchayaths coming forward with local level plans and programmes for biodiversity conservation during the project period and it is still continuing demanding a continued support in the district from NBA and state Biodiversity board. We understand that there need to be more sensitization among officials of various departments to understand the role of BMCs and the need to incorporate biodiversity concerns in the planning process, which is currently lacking.

Overall the project resulted in achieving the set goals to a greater extent, and there is demand from other panchayaths to empower the BMCs too. There are many innovative projects under taken by Panchayaths under the scheme and they need to be supported. We hope that NBA will continue its support to Wayanad, one of the mega hotspots of Biodiversity in the Western Ghats.



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