PADDY REVIVAL IN KATTAMPALLY KAIPPAD: ACHIEVEMENTS AND CHALLENGES

LENEESH K

November,2011

www.save-our-rice.net

Introduction

Kattampally Kaippad (The low lying coastal paddy field is called Kaipppad) in Kannur district was considered as one of the granaries of north Kerala. Kaippad was endowed with rich paddy and aquatic biodiversity. It was also a unique cultural landscape. Thousands of people depended on Kaippad for livelihood. The area was rich and prosperous. But the Kattampally multipurpose irrigation cum bridge project, introduced in 1958, left the area unproductive and caused irreversible damages to the environment. The project was implemented to convert the single crop Kattampally kaippad into a three crop area. But unfortunate result of the project was that it turned the area into a zero crop field for nearly 40 years. After a long struggle of four decades, the regulator was abandoned and traditional kaippad cultivation was restarted in 2009. Though we have numerous examples for developmental projects that turned into environmental, social and cultural catastrophes like this, environmental impact assessment prior to developmental projects continues to be nothing more than a formality even today. This case study is an attempt to understand the environmental, economic and social impact of the project.

Acknowledgement

There are many people who made this study possible. First of all I would like to acknowledge veteran farmers who fought the Kattampally regulator all through their adult lives and kept the issue alive. Kunhi Manoo master from Chelora, A K Madavan from Puzhathi and late V C Abdul Khaddar from Kakkad played a significant role in this. During this study, Dr. S Leenakumari, Director,Paddy Mission, Kerala, Ashok Kumar Thekkan, Principal Agriculture Officer, Kannur, P C Danarajan, Deputy Director of Agriculture, Kannur, and T P Padmanabhan, Director, Society for Environmental Education Kannur (SEEK) helped me by providing valuable inputs and guidance. I thank farmers, school teachers, social activists and agriculture officers who helped me in this study. Pulikkal Balan, District Assistant Secretary, Kisan Sabha, provided me some valuable information and Hari Chakkarakkal and Madu Puzhathi provided me photographs. S Usha, Sridhar R and C Jayakumar of Thanal guided me. Shibu K Nair of Thanal helped me in designing this report. I express my gratitude to all of them. I would like to specially acknowledge Sreedevi Lakshmikutty of Thanal, who edited this report.

Leneesh K

PADDY REVIVAL IN KATTAMPALLY KAIPPAD: ACHIEVEMENTS AND CHALLENGES

"In our villages, a person's financial status was measured on the basis of kaippad land he owned before the Kattampally regulator came. Every year we had good harvests. Farm workers were given wages in terms of paddy. Farmers and farm workers had food reserves. We used to catch fish from kaippad. Kakkad was the centre of trade. Hundreds of boats carried people and goods from Kakkad to other places through the river every day. All families had boats like we have bikes today. People in kaippad were hard working and high spirited. People cannot be different in areas controlled by hydrodynamic forces. Life was challenging as well as fulfilling. Gone are those good days" says K M Muhammad, farmer, Narath.

Introduction

Kattampally regulator cum bridge across Kattampally river in Kannur district of Kerala has a story of environmental crime to reveal. Like all other irrigation projects, it was also implemented in the name of sustainability and development. The Kattampally project, the first major irrigation scheme proposed in north Kerala was designed as a multi-purpose scheme for irrigation, prevention of salt water intrusion, reclamation of paddy land, flood control, navigation and transportation. However, what is interesting is that people in the area had not demanded a regulator cum bridge project before 1957. Their demand was for a bridge connecting hundreds of villages in the north of the river with the township in the south.

The Kattampally river and kaippad lands

The Kattampally river is a tributary of Valapattanam river, the biggest drainage system (110 km long) in north Kerala. Passing through wooded country the river flows through the plains in a meandering course and joins Valapattanam river at a place called 'Thuruthu' about nine kms before it joins the sea. The Kattampally river is nearly 20 kms long and the catchment area of the river is about 83 sq kms.[1]The average rainfall in the area is about 125" of which 104" is received during the south west monsoons and about 21" in north east monsoon period.[2] Of the total length of 20 kms the river is affected by tidal action for a length of 12 kms due to its confluence with the Valapattanam river.[3]

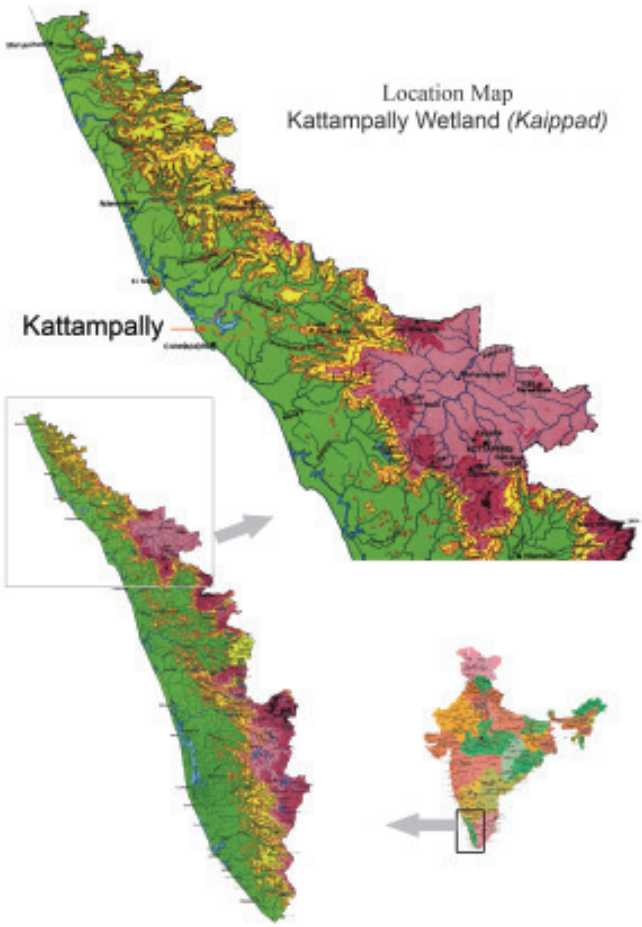
Kattampally regulator cum bridge

[1] Report of the Expert Committee constituted by government order number 1124/97 in1996.
[2] ibid
[3]According to the irrigation department of Kerala the maximum observed flood level at the site is +8.39 MSL and the maximum flood discharge in the river is estimated as 13950 cusecs. The average tidal variation between low and high tides is 2.78 feet.

The flooding of the river was caused mainly by the backing up of the flood waters from the Valapattanam river. The flood coupled with the tidal action had widened the river course, flooding and submerging low lying lands and creating a backwater called the Kattampally swamp or kaippad lands which cover the Puzhathi, Kolachery, Narath, Chelora, Elayavoor, Munderi, Kuttiyattur, Mayyil, Chirakkal panchayats.

Paddy tradition in Kattampally kaippad

In Kattampally kaippad the principal crop was paddy. Three types of paddy cultivation were practiced here. The single crop system of 'virippu' was practiced in the high lands, the single crop 'kaippad' system was followed in low lying marshy lands affected by saline water and flood, and a double crop called 'puncha' in lands where traditional irrigation was available.[4] If the north east monsoon failed to arrive in time, the area would be affected by salt water intrusion from the sea and the double crop lands were also partly affected by saline water. But this occurred rarely.



On the virippu and puncha lands, the cultivation began by the latter half of April after the first summer showers. The land was prepared for cultivation during the summer months. This was a broadcast crop. The strong showers in April and May helped the broadcasted seedlings to take root and when the full blast of the south west monsoon hit, in June, the seedlings were strong enough to withstand the rain and wind.[5]

In the puncha lands the second crop cultivation began in August-September, after the first crop was harvested, and depended completely on the north east monsoon. Irrigation was done by bailing water from open pits which was possible due to the high water table. As the cultivation depended entirely on the rainfall, a long duration and a short duration crop were cultivated. Vegetables were cultivated in virippu and puncha land after harvesting paddy.

The crop season in kaippad lands began by the month of May- June. The farmers cultivated paddy during the interval between the south west monsoon and north east monsoon when the salinity of the water was near zero. As the south west monsoon advanced the saline water in the Kattampally and Valapattanam rivers retreated to the Arabian sea for nearly four months.

---

[4]Report of the Expert Committee constituted by government order number 1124/97 in1996.
[5]ibid

Salt resistant paddy varieties like kuthirunellu, orkkayama, chovaryan ,odachan were cultivated. Kuthirunellu, chovaryan and orkkayama are ideal for cooking rice. Odachan a deep water paddy variety was used for preparing beaten rice and did not taste good in cooked form.

Two types of planting were practiced on the kaippad lands:

I) During the summer months the earth was excavated and heaped up in small mounds, close to each other, called Kuthirs. The seedlings required were raised in separate higher lands. After a few good showers the salinity in the kuthirs get washed away and farmers dismantle the kuthirs and level the land. Then the saplings were transplanted on to the leveled, de-salinated land. This was usually done by the end of June and orkkayama and chovaryan paddy varieties were used for this method.

II) The second method of planting was done with kuthirunellu and odachan varieties and the seeds were directly planted into the kuthirs. This system was practiced in deep water paddy areas where transplanting was practically impossible. After the plants matured, the kuthirs were dismantled and levelled. The harvesting took place during September and October before the salinity encroached into the river. There was no need to irrigate or add natural or chemical fertilizers or use any pest and weed control in the kaippad lands. After planting, the farmers went to the fields again only to harvest the paddy.

Other occupations

The kaippad had rich stocks of fish and fishing was the main occupation of many people. Farmers used to catch fish, crab, prawn etc. from kaippad. Fishing and 'Chemmeen thappal' (which literally means searching for prawns with your hands) were pleasurable and fairly lucrative leisure time activities for women agriculture workers during those days. Almost every day they could get a good catch from kaippad. They kept a share of their catch to prepare food for guests and for special occasions and sold the rest. It also helped them earn some additional money which came in handy for extras.

The flood water in the Kattampally river coupled with flood water in the Valapattanam river and tidal action would inundate the Kaippad lands during the monsoon. Loss of houses, huts, cattle and loss of coconut and other useful trees were common. Men, women and children used to rush to safe higher grounds during the floods. Floods occurred every year and it was really devastating. They bore this devastation by nature in silence. People wanted a solution for this but they did not know what to do!

Kattampally kaippad

The kattampally project

The discussions about constructing a bridge across the Kattampally river, which connects Kattampally on the south bank with Narath on the north bank, began while this part of the country was part of Madras province during late 1940's and early 1950's. Those days the area was poorly connected by road and the only means of conveyance was the ferry service through the Kattampally river. People from places like Narath, Kambil, Mayyil, and Irrikkur were cut off from the southern part of the river when floods occurred. So people in this area intensively campaigned for the bridge. All the political parties (CPI, IUML, INC) supported the demand.[6]

A detailed feasibility study for the project was taken up after the formation of the Kerala state in 1956.[7] Very soon the state government took up the project. The proposed Kattampally bridge was 367 metres long. The bridge also required an approach road of 2.6 kms on the northern side and 150 meters on the southern side.[8] The cost of construction was unaffordable for the government and the political leadership realized the possibility of using agricultural development funds for accomplishing their plan.[9] That was how instead of the Kattampally bridge the multipurpose Kattampally regulator cum bridge project was born. There was no money in the budget for constructing roads but there were enough funds to construct regulators and dams. Veteran political leaders from the area admit that the bridge was the primary objective of the project.

Highlights of the dream project

"Our demand was for a bridge. But the government and the political leadership came up with a multipurpose regulator cum bridge project. We trusted them because they were honest and had popular support. We were told that even electricity can be produced from the project", says N Radhakrishnan, Narath.

The project was proposed to protect about 3168 acres of wetland from floods and salt water intrusion thus converting Kattampally into a three crop area.[10] The project put forward the possibility of near zero salinity in the water for the entire year and the prospect of growing three crops of paddy . It envisaged that the water required for the second and third crop of paddy would be supplied from the Pazhassi irrigation project through its canals. [11] The project was designed to prevent flood water entering the Kattampally river from Valapattaman river.

Kattampally reservoir

[6] The area was Communist Party of India's stronghold. T.C Narayanan Nambiar, a charismatic communist leader and member of Madras Legislative Assembly, worked hard for the bridge. He introduced the matter many times in Madras assembly. Madras government could not implement the project due to financial limitations. Therefore, the project stayed unimplemented during that time.

[7] First democratically elected government came into power in 1957. The government was led by the communist party and Kannur was the main bastion of the party. T.C. Narayanan Nambiar, who was a member to Kerala Legislative Assembly from Kannur proposed the bridge plan in the Assembly.

[8] Report of the Expert Committee constituted by government order number 1124/97in1996.

[9] The focus was on agriculture development in the first and second plan period.

[10] Report of the Expert Committee constituted by government order number 1124/97in1996.

[11] ibid

In the second stage around 1000 acres of paddy land was proposed to be reclaimed by canalizing the river.[12] It required considerable investment. No doubt people welcomed that. Seven electric motors were proposed to be set up to pump water out from the reservoir and reclaim the land.A canal from Vadakara to Kakkad in Kattampally was proposed for transportation as part of the second stage of the project. The river side town of Kakkad was the trade centre of Kattampally area therefore business men welcomed this proposal, for they thought it would multiply their business profits.[13] A navigation lock with an electrically operated gate was proposed to be built on the southern side of the regulator. It was for water transportation from Valapattanam river to Kattampally project area. [14] Beyond all this the bridge was the primary attraction of the project.

Choice of the site

According to the project proposal the site was chosen so as to set up a salt water exclusion regulator to benefit maximum area of land possible at a reasonable cost.[15] The site proposed was of an existing ferry giving easy access to the village by an existing road raised above flood level. The road connected the villages of Narath, Kambil, Kattampally, Mayyil, Irrikkur, to the district head quarters at Kannur, nine miles away.[16]

The site was also suitable for the construction of wharves for navigation purposes and had easy access to the road.[17]

The Kattampally river had a width of 367 meters at the site proposed. The regulator with 9 vents of 20 feet each was built with electrically operated shutters. These vents were built to protect the Kaippad land from salt water intrusion and flood. A road bridge over the regulator was constructed for connecting the roads. The regulator covered about 186 meters of the river. The remaining length was closed by an embankment with an all weather road on top.[18]

The canalizing of the river through the regulator enabled reclamation of 1000 acres of the swamp for paddy cultivation on the north side of the river.[19]

A navigation lock was constructed on the southern side of the regulator. The river is navigable and the boats, timber pontoons etc. can pass through the navigation lock. The lock has an electrically operated gate. Canals were built from Pazhassi dam to Kattampally to bring fresh water during periods of water shortage.

Construction of the regulator

"Kattampally was a people's project. Such public participation in a development project could be seen nowhere in the history of Kerala. People voluntarily rendered their labour. Hundreds of communist party's workers in khaki pants and red shirts worked at the site. Workers of other political parties, irrespective of political affiliation participated. Everyone had a single dream- a prosperous Kattampally", Pulikkal Balan, Assistant Secretary, Kisan Sabha, Kannur district.

---

[12] Report of the Expert Committee constituted by government order number 1124/97in1996.
[13] ibid
[14] ibid
[15] ibid
[16] ibid
[17] ibid
[18] ibid
[19] ibid

On 17 January 1958 the then Governor of Kerala Dr. B Ramakrishna Rao inaugurated the construction of the multi-purpose regulator cum bridge project.[20] The high spirited people of Kannur were in a festive mood after the announcement of the project. Senior farmers remember the sight of hundreds of boats bearing red flags, carrying earth from distant places for the construction of the barrage. People believed that they were building a new world of prosperity.

Economic and environmental impact of the project

"We never thought the project would be a disastrous one. We lost our paddy, we lost our fish. We were rendered jobless. Farm workers and fishermen, who were rendered jobless, can be seen at 'Thekki Bazar', a commercial street in Kannur town in search of work. The money from the gulf and then the construction boom saved many people from unemployment and poverty," B M Krishnan, Kolacheri.

Eight years after the construction work began in 1958 the regulator was commissioned in 1966 and the bridge was opened for transportation. The road was a great blessing, it connected the two banks and made transport of people and goods across the river very easy.

Paddy cultivation comes to a halt!

However the regulator adversely affected the paddy cultivation and other livelihoods. Farmers and farm workers in the Kaippad area got ready for three-crop paddy cultivation. Instead kaippad cultivation came to a complete halt within five years, Virippu, mundakan and puncha partially disappeared a few years after the shutters of the regulator were closed for preventing salt water intrusion into the area. Kattampally river became a reservoir behind the regulator after the shutters were closed.

Kattampally kaippad

Farmers began paddy cultivation with fresh water paddy seeds. They were able to cultivate two crops of paddy such as mundakan and puncha for a few years after the completion of the project. Gradually the paddy fields became hard and difficult to plough. Since the soil chemistry had changed ordinary tillage equipment could not break the soil. Many farmers ploughed the land three to four times. However, they could not plant paddy. Since the soil became hard to break, some farmers tried other techniques. They made holes in the ground using iron tools and planted paddy in it. But the plant roots failed to penetrate into the unyielding soil. (No scientific study is available till date regarding the change in soil chemistry in the area after the closure of the regulator). Therefore, framers abandoned paddy cultivation and left the land fallow within five years of the project being

[20] V R Krishna Iyer was the minister for irrigation and K R Gauri Amma was the minister of agriculture. T P Kuttiyamu was the chief engineer of the PWD.

commissioned. For the first time in their lives, farmers began to experience food shortage. *"Many farmers joined the lines in front of ration shops even though they had kaippad land. Agriculture labourers became unemployed*. Some of these *were muslim farmers in Kattampally who used to give a hundred kilograms of paddy as Zakat during Ramdan. This was unprecedented", Kadumadathil Moosa, Munderi.*

During the 1980s and 1990s some farmers ploughed the land with power tillers and cultivated mundon, a traditional paddy variety, though kaippad was rocky. But it was expensive as well as less productive. "*We were cultivating paddy on rock even though it was a waste of money. The soil never became as loose as kaippad soil. We were doing it for our household consumption", said Babu, Kolacheri.*

According to government data only 307 hectares was under mundon cultivation including non kaippad land within the project area in 1997. (The maximum yield per hectare was 1450 kgs, very below the yield from traditional Kaippad cultivation.[21]

The river becomes a reservoir

The regulator disturbed the natural flow of the Kattampally river. The rain water that pooled in the area close to the regulator was not properly drained out to the Valapattanam river. The flood situation created problems for paddy cultivation in the lower and middle reaches of the project area. The seven electric motors, which were proposed to pump out water from the reservoir, have not been installed till date. Even if they were installed, the idea of pumping out water from a reservoir spread over more than 3000 acres is sheer foolishness. Apart from this the kaippad area saw the advent of fresh water weeds. Leeches and poisonous creatures also appeared. Large scale damage to paddy crop was caused by migratory birds especially purple moorhen. *"The attack from purple moorhens and other migratory birds on paddy was minimal before the Kattampally regulator was constructed. They used to nest in the marsh lands and feed on shoots and nuts of water plants. After the regulator came, purple moorhen started nesting in the paddy and also caused large scale damage to paddy fields by eating the plants",* Puthan Purayil Balan, Chirakkal, complained.

Kakkad town dies!

Kakkad town on the bank of Kattampally river was the centre of trade in Kattampally area. The streets of the town were always crowded and noisy. Farmers, fishermen, businessmen and people from all spheres of life gathered at Kakkad for various economic transactions before the construction of the regulator. Hundreds of boats, either traveling or attached to the ferry, could be seen. Farmers used to come to Kakkad every day in boats with goods from every corner of Kattampally. With the money earned by selling their produce, they bought what they needed. People transported materials required for construction work from Valapattanam town to kakkad and other villages through the river. The river was wide and deep enough to transport wooden pontoons. Shops selling grocery and luxury items, hotels and toddy shops –kakkad had everything to satisfy the needs of the people. Before the regulator was constructed people from the north of the river had to come to Kakkad and then from there go to Kannur. The regulator made it possible to go directly by road from the north of the river to Kannur and Kakkad ceased to be a transit point due to which many businesses shut down and people lost jobs. Many of them chose construction and mining work and then began migrating for jobs to the Middle East.

[21]Report of the Expert Committee constituted by government order number 1124/97in1996.

Food security turns to food scarcity!

The project gravely affected the food security of the region. Apart from paddy, people lost their fish haul as well. Nobody imagined the project will harm the fishing of the region. There were around 15 Valluva families (a fishing community) at valluvan kadavu. Of these, except one family, all others have migrated downstream and to other places for employment after the regulator was built. *"The community is mainly dependent on fishing and mine is the lone family that remains in this village. The impact of the regulator on our life was disastrous. We could not continue our traditional occupation. Those who wanted to continue fishing moved downstream. Some others migrated to town areas for work in construction sites and other fields. My children are not fishing. Fishing is impossible here after the regulator was constructed. ",*says *Vallyambeth Kausalya, Chirakkal.* The two other Valluva hamlets (Valluvan Kadavu in Narath and Valluvan Kadavu in Kolachery) under the project area also looked deserted.

Other impacts

An environmental impact study by CESS says that the land use changes clearly indicate pressure on land and the indirect disturbance to top soil due to intensive cultivation methods.[22] After a few years, shutters of the regulator started leaking and salt water began intruding into the project area. Many houses and business establishments were set up in the converted Kaippad lands by then. The well water in the new settlement area became salty following the leaks. A large amount of money was spent for repair works. Instead of farmers, engineers and contractors harvested from fallow paddy fields!

This island of coconut trees was once part of vast kaippad. Many parts of kaippad were reclaimed for coconut plantations and industrial puposes.

Reclamation of paddy fields and Kaippad lands for other uses has been a regular feature in the basin, and particularly in the Puzhathi and Narath panchayaths. Many farmers converted their paddy fields into coconut orchards. In Narath panchayath about 2.51 sq km area of paddy fields were reclaimed for coconut groves.[23] Many people filled up their Kaippad land and constructed houses and business establishments. This is a threat to the paddy cultivation as well as availability of ground water in the area.

People' begin organizing against the project

"Kaippad is a gift from God. There was no need for fertilizers or pest and weed control measures. We used to visit Kaippad for harvest after planting. Kaippad fed us like a mother. Though the proposed project was an impressive one, later we realized that it was unscientific and against nature. I understand it is against the will of God. So we organized against it", Kunhi Mamoo Master, President, Kattampally Project Area Karshaka- Karshaka Thozhilali Samrakshana Samithi.

---

[22] Sasikumar, B. "Land use/land cover and environmental impact in Kattampally puzha basin". CESS; 1996.
[23] ibid

The entire Kaippad lands were lying fallow by the beginning of 1970. The area behind the regulator had become waterlogged. Gradually people started to organize against the project. In 1970 farmers from Kakkad and nearby villages, led by V C Abdul Khadar, a farmer from Kakkad, organized themself against the project underthe banner of Kattampally Project Areas Karshka Samithi. The organization sought the decommissioning of Kattampally irrigation project and rejuvenating traditional kaippad paddy cultivation.[24]

However there were differences of opinion among farmers. One section of farmers demanded the speedy completion of the project including fresh water supply from the Pazhassi project. They were backed by political parties for whom Kattampally was a development programme. Abandoning the project would be a blow to their developmental vision. But the other section demanded the revival of traditional kaippad paddy cultivation. They emphasised that the shutters of the regulator should be opened and salt water allowed to enter the kaippad area.

Though various groups organized agitations the political leadership did not take any steps to solve the problem.[25] Farmers, environmentalists and people who advocated for decommissioning the regulator were suppressed and on some occasions they were manhandled by the supporters of the project.

In 1996, when V.K. Rajan was the Minister for Agriculture, a commission was set up with the district collector of Kannur, as the Chairperson, to study the problems in the Kattampally area and to find a solution. [27] But the commission did not touch upon any of the key concerns. The main suggestions of the commission were speedy completion of Pazhasi Project, renovation of the salt water barrier, division of project area into different zones by bunding, construction of marginal bunds, drainage facilities which may also act as water stores, sub-surface drainage method and construction of five more shutters on the right bank of the river.[28] Kattampally Nellu Krishi Vikasana Samithi was set up following the recommendation of the commission. Rs 2.5 million(25 lakhs) was sanctioned for repairing the shutters and canals. But no attempts were made to implement the other suggestions.

People in the project area conducted a public hearing about the project under the auspices of the Society for Environmental Education Kannur (SEEK), Kannur Paristhithi Samithi and Kattampally Project Area Karshaka- Karshaka Thozhilali Samrakshana Samithi on 25th May 1997. T P Padmanabhan, Director SEEK was the chairman and Jayaraman was the convener of conducting the green bench. A petition signed by 2000 farmers was submitted to the green bench of the people's court. Dr. Kusumam, Dr. M K Ramakrishnan, and Dr. Raviraman were the jury members. After the hearing the green bench visited Kattampally area. After that the verdict was announced in public and a copy was given to the district collector.[26]

---

[24] Soochimukhi, Febbruary 1996.
[25] Soochimukhi, June; 1996.
[26] bid
[27] Report of the Expert Committee constituted by government order number 1124/97 in1996.
[28] ibid

In 2004, Indian Union Muslim League(IUML), an influential political party, and Kattampally Project Area Karshaka-Karshaka Thozhilali Samrakshana Samithi (KPAKKSS) pushed the government for opening the shutters of the regulator. KPAKKSS president Kunhi Mamoo Master had considerable influence with the IUML that was then a part of the coalition government. IUML leaders from Kattampally took the stand that the Kaippad is a gift from God and it is his will to rejuvenate paddy cultivation. Though the organization had influence with the government, the farmers lost the battle between the cup and the lip. They continued their struggle despite the setback.

Many veteran farmers were in the forefront of the protest. The youngsters and politicians did not support the argument that salt resistant paddy cultivation is possible in kaippad. Agricultural experts and the staff of the state irrigation department denied the farmers' experience with salt resistant paddy varieties.

Then came the school children!

In 2007 students of Kannadipparambu GVHS, conducted a survey among former kaippad farmers in the area and documented traditional kaippad farming practices. Based on their findings they concluded that revival of traditional kaippad farming is the only solution for the problem. The study suggested promoting the traditional farming in the kaippad lands. Students sent copies of the report to the Chief Minister, the Minister for Agriculture and the Prime Minister.

The Agriculture Minister Sri.Mullakara Ratnakaran took personal interest in the issue and the government appointed Dr. P V Balachandran to head a commission to study the possibility of paddy cultivation in Kattampally-kaippad area. The commission submitted its preliminary report on 19th June 2008.[29]

The recommendations of the commission

Shorts term plans

- Survey of paddy land
- Formation of farming societies and insurance coverage for the crops
- Preparation of crop calendar
- Conduct of training and front line demonstration
- Repair of damaged shutters
- Operation policy for the Kattampally regulator
- Cleaning or deepening of the drainage canal

Long term plans

- Construction of additional regulators
- Making available irrigation water from Pazhassi project as and when required for paddy cultivation

[29] Comprehensive package for the development of paddy cultivation in the Kattampally project area by Dr. P V Balachandran Commission.

Report opposed

The farmers did not welcome the report, when it was discussed at a public meeting held at community hall of Elayavoor Grama Panchayath on19th July 2008, as it did not recommend opening the shutters of the regulator. After heated debate on the report with farmers the commission recommended opening the shutters of the regulator and trying salt resistant paddy cultivation on an experimental basis.

A section of farmers and politicians from Chirakkal panchayath vigorously opposed the government's move. They said that the drinking water in the project area will be contaminated and the ecosystem will be damaged if shutters of the regulator are opened. They said salt water can do nothing to improve the quality of soil in the Kaippad land and salt resistant paddy cultivation is foolish.

Students demanding decommissioning of Kattampally regulator

A K Madavan, a traditional farmer from Puzhathi, took two balls of clay from kaippad land to a meeting. When it was his turn to speak, he put the clay balls in two separate glasses, one containing fresh water and the other saline water from the river. At the end of his talk, in which he advocated the traditional way of farming, he pointed to both the glasses. The clay ball in the fresh water was still hard whereas the clay ball in the saline water had become soft within those few minutes. This was done in front of agriculture scientists and people who were against kaippad cultivation, silencing them effectively. Some officers from the irrigation department also opposed the move to open the shutters of the regulator. The agriculture department sensed the possibility that the irrigation department will seek a stay order if they were asked to open the shutters. Finally orders were delivered at 4 p.m. on the evening of March 31st 2009 and the shutters were opened.

Paddy revival- challenges and accomplishments

As per Dr. P V Balachandran commission's recommendations the shutters of the regulator were opened for two months from 1st April 2009. The Kaippad soil became soft under saline water. Along with that the fresh water weeds disappeared. Farmers were able to prepare the land for cultivation. The experimental kaippad paddy revival mission was inaugurated by the Minister for Agriculture on 20th June 2009 at Kannadipparamba GVHS. In the first phase 205 hectares of kaippad paddy was cultivated. A task force of agriculture workers was organized to provide labour required for paddy cultivation. The task force was given training in handling modern agricultural machines like tillers, transplanters and harvesters. They were also provided insurance coverage and financial support.[30]

---

[30] Farmers were given Rs. 5000 as financial assistance for a hectare of paddy in 2009-2010. Rs. 40 lakh form Rastriya Krishi Vikas Yojana, 271.5 lakh from state food security project and 50 lakh from district panchayath were earmarked for the mission. Rs.10000 was given for farmers for a hector of paddy during 2010-2011. Under diary project Rs.13000 each were given to 100 selected farmers to have a diary unit. Rs.194 lakh was allocated for strengthening basic infrastructural facilities like drainage, roads, bunds, culvert, bridges etc.

In 2009 the yield was about 2-4 tonnes per hectare. Farmers who used traditional varieties suggested that the hay yield should also be considered. The hay of traditional varieties is long and strong and many farmers have cattle and this provides fodder. The Kattampally experiment proved that Kaippad paddy is possible and profitable. But farmers face the problem of unavailability of labour.

Members of paddy task force, a self help group of agriculture workers

The government provided additional support to promote kaippad paddy. Tillage equipment and other farm machines were made available. In a joint effort 1500 acres of land was brought under cultivation in 2010. Again farmers got yields of 2-4 tonnes per hectare.

But new challenges cropped up. Because of its marshy soil structure, tillers and other farm equipment did not work well in kaippad and it was established that human labour is essential. Labour is neither available locally nor affordable. So many farmers could not cultivate paddy as they planned.

Farmers were given the modern paddy variety (hybrid derivative) Uma. Farmers shared their opinion that this variety does not grow well in saline water. Modern saline tolerant varieties like Vytilla VI and Ezhom I and II were also used. All the modern varieties including salt resistant varieties were attacked by the pests. As a result pesticides were used in 2010, the very first time in the history of Kattampally kaippad area.

Kolappala Kumaran from Kuttyatore Panchayath says, *"kaippad is a unique geographical area therefore needs a unique approach. Only traditional varieties can withstand geographical as well as climate conditions here. Modern varieties are short therefore cannot survive the flooding. There are deep areas in kaippad and only tall varieties like Kuthir and Odachan can survive there"*.

Kaippad prepared for cultivation

Modern paddy varieties like Uma cannot tolerate salinity above 2ds/m. Modern salt resistant varieties like Vytilla VI, Ezhom I and Ezhom II and traditional Kaippad varieties like Kuthir, Orkkayama, Odachan and Chovaryan can tolerate salinity up to 8ds/m. Salinity above 8ds/m is considered high salinity. Even salt resistant paddy varieties cannot tolerate salinity above 12ds/m. Therefore the need of the hour is to promote salt resistant varieties with organic farming techniques, considering the ecological health of the area. Parts of kaippad in Puzhathi, Chirakkal, Chelora, Narath and Kolacheri are quite deep and more saline prone and therefore require deepwater saline tolerant varieties of paddy.

Farmers also had complaints about Kattampally project area shutter committee, the body responsible for managing the regulator. They said that the shutters are not opened or closed in time. Due to fresh water exposure the paddy was attacked by pests and fresh water weeds. Shutters must be open throughout the year except the days on which planting and harvesting takes place. Farmers also demand more shutters in addition to the existing nine. The lack of shutters and blockage in existing canals causes salt water logging when shutters are open. The water logging mainly occurs in Narath, Puzhathi and Chirakkal panchayats which are close to the regulator. Due to this problem farmers in the area are unable to plant saplings in time.

Lack of vision is also seen in planning. More mini regulators, bunds, side walls are proposed to be constructed in the area. And there are also plans to separate kaippad into columns. These projects will adversely affect the fertility and the unique geographical peculiaties of the area. Traditional techniques, which are local and sustainable, should be promoted instead of regulators, bunds and side walls.

Transplaning paddy saplings in Kaippad

Conclusion

The Kattampally regulator cum bridge project became a failure within five years of its commissioning. The project was implemented without conducting an environmental impact study or considering the traditional farming practices in the area. The project designers were under the impression that modern science and technology has the answer to all these concerns. The government and bureacrats understood the problems with the project too late. It required tremendous public pressure and an incessant struggle from veteran farmers to correct the mistake. There are some farmers like Kunhi Mamoo master from Chelora and A K Madavan from Puzhathi who dedicated their life to the struggle to decommission the regulator project. The cost benefit analysis can definitely prove that the Kattampally multi-purpose regulator cum bridge project resulted in the wastage of public money. Things started to change when the previous government showed willingness to listen to the farmers. Now it is celebrated as a model for paddy revival in the state. We hope that the Kattampally experience will be an inspiration for the revival of many such traditional paddy lands in the state , thereby helping the state to achieve atleast partial self-sufficiency in rice production.

Reference

1) Report of Kattampally multipurpose project presented by Chief Engineer P T Kutiyamu, PWD, on the inaugural occasion of the project on 17th January 1958.
2) Report of the Expert Committee constituted by government order number 1124/97 in1996.
3) Dr. P V Balachandran commission report, 2008.
4) A study about the spreading of Pokkali farming and biodiversity in Narath Panchayath, project report by students of G H S S, Kannadipparanbha, Kannur,2008.

5) Report of Kattampally Vikasana Agency, 2009.
6) Kattampally paddy developmental project report by Principal Agriculture Officer, Kannur district.
7) Notice published by Kattampally Project Area Karshaka Samithi
8) Soochimukhi, February, 1997.
9) Soochimukhi, May, 1997.
10) Soochimukhi, June, 1997.

About the author:

Leneesh K is a research associate with 'Thanal' a Public Interest Research, Advocacy, Education, and Action Trust based in Thiruvananthapuram.

SAVE OUR RICE CAMPAIGN

Conserving Rice ecosystem Sustaining Rice Culture and diversity

Protecting Traditional Wisdom Preventing GMOs and toxics

Ensuring Safe and nutritious food

Rice or paddy needs no introduction to us, Asians. Rice is food for us and no other plant has had such a deep-rooted influence on our lives. For centuries, if not from time immemorial, we in Asia have been cultivating rice, which is our food. This single crop binds India, China, Bangladesh, Philippines, Thailand, Burma, Vietnam and all other traditional 'rice-nations'. The Save our Rice Campaign in India owes its origin to the Asia-wide 'Save our Rice Campaign' facilitated by the Pesticide Action Network Asia-Pacific (PAN AP).

Programme Secretariate:
Thanal, H-3, Jawahar Nagar, Kowadiar (P.O.),
Thiruvananthapuram, Kerala, India.
Tel-+91-471-2727172/2727150

Email:admin@thanal.co.in

www.thanal.co.in
www.indianricecampaign.org