# WEALTH OF THE YOKE INTERPLAYOF NATURE AND CULTURE

Sundar Ganesan V. Arivudai Nambi Karthikeya Sivasenapathy

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Sundar Ganesan Senaapathy Kangayam Cattle Research Foundation Viren Mohan

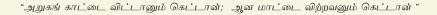
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"Ruin awaits the man who gives up pasture or who sells the bullock that was of use to him"

- Proverb in the Kongu Region



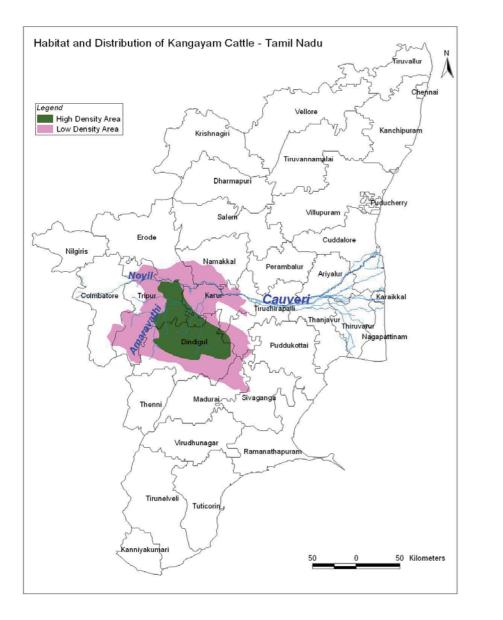


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India is a repository for domesticated animal biodiversity having 30 well defined breeds of cattle, comprising 7.75 % of the total world's animal's breeds. The southern peninsular region has the largest number and breeds of draught cattle. Kangayam is a popular and well known breed from Tamilnadu. The breed was evolved by the then Pattakarar of Palayakottai, Shri. Rao Bhadhur Nallathambi Sarkarai Manradiar and his family. Over time, a general decline in the Kangayam population from the breeding tract is reported and is on the verge of extinction.

Against this backdrop the Senaapathy Kangayam Cattle Research Foundation was established with the vision of acting as an "in-situ" conservation and breeding centre for the Kangayam Breed. The founders of this organisation come from the Mandradiar family that was responsible for upkeep and maintenance of a major herd of Kangayam breed clubbed with appropriate area of the farm under Korangadu grazing lands. The foundation is pro-active in raising awareness about the Kangayam Breed and the social, cultural and heritage value of Korangadu (a unique silvi pasture grazing system found in western Tamilnadu). The foundation is located in the hamlet of Kuttapalayam, 5 km from Muthur on the Kangayam – Kodumudi Road and 5 km from Nathakadiyur on the Palani - Salem State highway. It is located about 80 km from Coimbatore, 30 km from Erode and 40 km from Tiruppur. A part of the cattle herd of the foundation are maintained at a farm in Valliarachal village, 6 km south of Muthur.

Pedigree bulls in the foundation are offered for service in inseminating animals within 10 km radius of the farm. As part of the village livelihood programme, heifers of good quality animals are provided to landless women. As the cost of the cattle in the market is a fixed one, the beneficiaries are able to maintain them for a period of 8-10 months and then sold in the open market. A portion of the profit is shared with the Foundation. This scheme has been named as Kuttappalayam Saminathan Village Memorial Community based Indigenous Heifer Rearing Programme, after the illustrious father of the Foundation's Chairman.

The Foundation is also a strong advocate of organic farming and draws a large number of local, national and international visitors to its farm. For raising awareness the Foundation is in the process of establishing a Kangayam Cattle Heritage Museum at Kuttapalayam. After careful research a Kangayam Cattle Heritage Trail has been created by identifying important sites of social, cultural and heritage value associated with the Kangayam Breed. For more information about the Foundation see www.kangayambull.com.

EVOLUTION OF BREEDS AND VARIETIES ARE A PRODUCT OF COMPLEX INTERPLAY OF NATURE AND CULTURE Worldwide, specific agricultural systems and landscapes have been created, shaped and maintained by generation of farmers and herders based on diverse natural resources, using locally adapted management practices<sup>1</sup>. In 2002, the FAO initiated a programme known as Globally Important Agricultural Heritage Systems (GIAHS) for the conservation and adaptive management of world's agricultural heritage systems. These sites have been chosen based on outstanding characteristics, proven history of sustainability and global significance.

In south Asia, Traditional Agriculture in the Koraput Region, Orissa, Soppinabetta System in the Western Ghats, Traditional Ladakh Agriculture, Raika Pastoralists of the Thar Desert in Rajasthan, Catamaran Fishing in coastal Tamilnadu, Kuttanadu Paddy Cultivation (below Mean Sea Level) in Kerala and Korangadu Silvi-pastoral Management System in mid-west Tamilnadu, Himalayan Agriculture in Sikkim and Wewe Irrigation System in Sri Lanka have been identified as GIAHS by the FAO.

The Korangadu Silvi-pastoral System and associated Kangayam Breed of Kongu region in mid-west Tamilnadu is a unique semi-arid pastoral system<sup>2</sup>. A study of this unique mutually inseparable breed-pastoral system provides a window to the rich bio-diversity and cultural heritage handed down the generations. Preserving this for posterity is a serious question requiring concerted and collective effort on the part of stakeholders – elected representatives, the State, large and small holders, scientists, academia and civil society. Such unique systems, however small, located in any part of the world cannot be ignored since it has global significance. Communities and Nations can no more detach or remain insensitive to such heritage issues. This article attempts to capture the different aspects of this unique system from a historical perspective clubbed with contemporary and future relevance.

## BREEDS IN INDIA AND TAMILNADU

Evolution of breeds and varieties are a product of complex interplay of nature and culture. The human element is extremely important for the evolution and continuity of a breed or variety. India is one of the richest countries in terms of animal genetic resources. It has 45 breeds of cattle, 4 camels, 19 goats, 39 sheep, 6 horses, 19 chicken, and 11 duck varieties. Indian cattle breeds vary in size, form, symmetry and features such as horns, hair colour, hump, and capabilities suited to local peculiarities of climate, soil and fodder. The Ongole, Kangayam, Amirtha Mahal, Hallikar, Krishna Valley, Alambadi found in various breeding tracts of southern India, and lesser known Bargur Malaimadu (in Erode), Manapparai, Umbalamcherry, Pulikulam, have distinct physical features and stand as a testimony to human ingenuity mediated through traditional knowledge.

<sup>1</sup> fao.or/nr/giahs/en
 <sup>2</sup> facing serious threats from competing short term economically profitable land use and pollution



Rao Bahadur, Shri Nallathambi Sarkarai Manradiar, the architect of Kangayam breed

#### KANGAYAM BREED

The Kangayam breed is known by the names Kanganad, Kongu and Kangayam and derives its name from the Taluk of Kangayam, are well known for their excellent draught power qualities and medicinal properties of milk (A2 beta-casein protein). They are elegant, medium sized, horns variously sized and set, colours different, but usually white or grey, chest and hind-quarter narrow, docile, guick and strong. Dentition is permanently completed by 6 or 6 ½ years and the maximum life of stock is between 20 to 25 years. Select bulls are allowed to cover heifers from the age of 3 years or castrated for rearing as bullocks. The Pattakarar Family<sup>3</sup> of Palayakottai, located in the present day Tiruppur District, especially the 33rd Pattakarar and his son Rao Bahadur N. Nallathambi Sarkarai Mandradiar were directly responsible for shaping the present day

Kangayam through selective breeding, improvement, management and protecting the breed at a time when bullock power was indispensable for agriculture and transport. Many small holders in the region also held the breed, but the purest form always came from the Pattakarars. Since 1924, the Government of Madras took steps to improve and popularize the

Kangayam Breed. It was around this period that the Pattakarar contributed a nucleus herd of pure bred bulls and cows for breeding purposes to the Madras Government, the Ceylon Government and to the Coimbatore District Board, thus opening the doors to their intellectual property.

In 1942, the then Imperial Council for Agricultural Research (ICAR) implemented the 'Kangayam Cattle Improvement Scheme' to assess the milk



Bull used for draft purposes

potential of the breed without deteriorating its draft quality. It was only at this point that the Pattakarar family started creating and maintaining "written" pedigree records. As part of the scheme, bulls were also distributed to other districts and States to upgrade local cattle to suit agricultural operations. Post independence, the state government introduced Key Village Scheme and Key Village Extension Scheme as part of the Five Year Plans, for the improve-

<sup>3</sup> The Pattakarars were the hereditary head of the Kongu Vellala community, with powers to settle social and religious disputes in their community to Vellalas and their sub-castes.

ment of Kangayam in its breeding tracts and adjoining areas. This continued until 1974, when this scheme was replaced with Intensive Cattle Development Project (ICDP) with emphasis on milk production through exotic breeds.

Inspite of the large scale transformation and decline of agriculture in the region there is still a demand for the Kangayam not only from the neighbouring districts of Sivagangai, Ramanathapuram, Pudukottai, Villupuram and Madurai, but also the states of Kerala, Karnataka and Andhra Pradesh for its draught power. The breed has also been exported to Brazil, Malaysia, Philippines and Sri Lanka.

## BREED MANAGEMENT

Folk taxonomy in the realm of community knowledge is based on colour of the cattle. 95% of the Kangayam cattle are white in colour called Mylai. 2% are red called Sevalai, 3% is black



Poochukalai & Sevalaimadu

Kangayam Cattle Pen, managed by SKCRF, Kuttappalayam

called Kari. Among the new borns, Poochi Kalai (Stud) is selected based on the height, weight, shape of the head, length of the legs, the formation of the hump, the length of the tail, gait, well formed ears and eyes and the sex organ. This is done after checking the pedigree (male and female) of the bull. When the bull is 2 ½ to 3 years when the dentition happen it is used as a Stud. The best animals are left to cover heifers to get the best offspring. If the new born does not qualify the above, they are castrated and left for draught purposes. As far as cows are concerned, they are also carefully chosen. These Cows usually calve 12 times in their life time. The best is between the 3rd and 10th calving. Mylai is preferred for its milk, curd, ghee, urine, dung properties and is considered to be the best for draught purposes. However, the ghee of Kari is considered to be the best.

## KORANGADU PASTURE LANDS

The Kangayam Breeding Tract is largely a rain shadow region of the Western Ghats receiving an average annual rainfall of 650 mm, having shallow red soil, and calcareous sub-soil, conditions favourable for better growth of grass with high nutritive value. Farmers set aside, lease in or lease out, large tracts of lands known as Korangadu. Korangadu, in the local language means, "uncultivated managed dryland set aside for grazing purposes". Many of these Korangadu are natural permanent pastures. The fields provide good pasture between the months of June and February. An indigenous grass variety called Kollukattai (Cenchrus ciliaris), other grasses and legumes such as naripayathan kodi (Phaseolus trilobus) grow in these pastures. Saplings of selected tree species like Vellai velan (Acacia leucophloea) are permitted to grow in Korangadu. Once in about seven or eight years big holders and two or three years by small holders Korangadu is ploughed using bullocks to upturn the soil and sow crops like horsegram, sorghum, pearl millet and naripayaru. The Korangadu is fenced with stakes of a thorny shrub called Kiluvai (Commiphora berryi). At the onset of the north-east monsoon, cattle are turned into the paddocks every day to graze until the arrival of



MANAGEMENT

The Korangadu is an

intensively managed

OF KORANGADU

system. Every five to seven years or after a drought year, a part of the hedge of

live Kiluvai (Commiphora berryi) fence is repaired by trenching, planting and

bunding, usually carried out during August (Ani-Adi) just before the onset of the monsoons, a labour

intensive process. These

## Kiluvai Fencing

the south west monsoon season. The cattle grazing in these Korangadu, manure the land and vital nutrients are added to the soil. The pasture lasts for several years and when it becomes scarce, are ploughed. However, during the hot months it is always a problem and cattle get scanty feed and they feed on pods of Vellai velan that fall down and supplementary feed consisting of sorghum or pearl millet stalks. Reference to the system can be found in the works of the English traveler, Francis Buchanan when he traveled in the region in 1800. This is the only region in India where private patta lands are used for grazing.



The vast Korangadu grazing land with Vellai Velan trees

paddock enclosures form the basis of the Korangadu system. Animals are let into the Korangadu paddocks and livestock keepers spend the whole day monitoring the animals and providing water in troughs fetched from a nearby water source (Personal observation). Korangadu owners maintain a healthy ratio of grasses belonging to different species, interspread with Vellai velan trees and oonjai (Albizia amara). The grasses are grazed upon by the animals during the monsoon months (June to December), later on Naripayithankodi, a



legume (January to March) and then consume Vellai velan pods which has high protein and nutrient value during the summer months. Owners remove and market when the trees mature. In the past farmers would renovate bunds inside Korangadu before the onset of the northeast monsoons to harvest rainwater which is also used by livestock. A decade ago, State funded soil and water conservation schemes have created bunds in appropriate locations as a means to arrest soil erosion and harvest rain water.

## TENURE ARRANGEMENTS OF KORANGADU PASTURE LANDS

#### Livestock keeper at work

A reconnaissance survey of the present day tenure arrangements associated with Korangadu was carried out to understand

existing patterns of use. Small holders and landless 'lease in' Korangadu (locally called Kandhayamor Kuthagai) from owners having surplus lands or those who have migrated to the city, for use as grazing Kangayam or Mecheri sheep, approximately for Rs.1000 to Rs. 4000 per acre per year. Some livestock keepers pay a large sum ranging from Rs.30,000/- to Rs.40,000/- to landowners as a deposit for in lieu of 4-5 acres of Korangadu for a period of 3-4 years (locally called Bhogyam). Land owners requiring capital for use in business or other social needs like marriage of children or higher education 'lease out' to others. During the lease period, the lessee would graze Kangayam and Mecheri animals in the Korangadu. When the deposit is returned by the landowner, the lessee vacates the land. It is usually agreed that a lessee would not be disturbed at least for three years. Most of these arrangements are oral and informal and disputes, if any, are settled through village elders. The credibility of the livestock keeper is very high compared with a farmer holding only land.

### BIOCULTURAL DIMENSIONS TRADING AND SPORTING

The Kangayam breed is presently associated with Kannapuram, Anthiyur, Tiruppur,



Aerial picture of the Cattle Show held at Vellakovil



Kallimanthayam, Athikombai and the Madurai Chittirai Festival. Kannapuram is mentioned as one of the important cities of ancient Kongu region. The Vikramacholisvara temple in Kannapuram was constructed during the period of Kalimurkka Vikrama Chola, a contemporary of Rajaraja I<sup>4</sup>. Ptolemy has noted the importance of Dharapuram, an entrepot of trade routes and famous for a good breed of cattle including a cattle fair as a regular feature, and also a commercial centre<sup>5</sup>.

Cattle being celebrated in a temple, Anoor Amman Temple

In the present, a cattle shandy is being held in Kannapuram village, located on the Coimbatore Trichy national highway between Kangayam and Vellakoil. Bulls and cows from various places in Erode, Salem, Namakkal, Karur and Coimbatore districts are brought to the shandy and sold to buyers from Thanjavur, Trichy, Madurai, Pudukottai and Karnataka and Andhra Pradesh. Cattle shandy (Mattuthavany) is held once annually in Kannapuram village for seven to 10 days during the Tamil month of Chithirai (April) and coincides with the "Temple car Festival" (Therthiruvila) of Mariamman Temple, another temple adjacent to the Vikramacholisvara temple on Chithrapournami day (Full moon day of 'Chithirai' of Tamil month). As part of the annual temple car festival people congregate in large numbers. Culturally this was a time for festivities, trading and transactions. Nearly 30000 animals are brought to the shandy every year, and a decline has been reported<sup>6</sup>.

Panguni uttiram (in March-April) and Thai poosam (in Jan-Feb) are the other festivals during which people visit Palani, Chennimalai, Sivanmalai – all Murugan shrines taking theertham (holy water of Cauvery) from a place called Kodumudi. This pilgrimage is done by foot which takes nearly seven to ten days. Kangayam cattle are taken along during this ritual and do the necessary oblations.





Jallikattu, a traditional sport

Rekhla, a traditional sport

<sup>4</sup> Ramamurthy, V. History of Kongu, p. 295, 1986.

<sup>5</sup> Vaidyanathan, K. S., The ancient georgraphy of the Kongu country, P. 78, 1983.

<sup>6</sup> http://www.hindu.com/2006/05/08/stories/2006050814680300.htm



Preparing for Jallikattu

JALLIKATTU AND REKHLA

Jallikattu, an important ancient Tamil sport that takes place in several villages in southern Tamilnadu in the month of January during the harvest festival Pongal. Jallikattu means tying the coin. In olden days a gold coin

wrapped in a piece of cloth was fastened to the horns of a bull and the tacklers hold onto the hump of the bull and untie this knot to get the prize<sup>7</sup>. While the name Jallikattu is retained, the coin is no more tied to the horns. One of the stringent rules practiced in the sport is if there is any blood mark seen on the cattle the baiter is barred. S. Theodore Baskaran has recorded this practice of Jallikattu in his book "Thamarai Pootha Thadakam: Cutruculal arvalarkalum kalacara araciyalum". Jallikattu bulls belong to a few specific breeds that descended from Kangayam. This sport is traced back to the Indus Valley Civilization which are depicted in the seals with scenes of bull baiting. The majestic Kangayam is an important breed involved in this game and considered to be more muscular and ferocious.

Rekhla race is another prestigious and passionate farmer sport conducted in 15 or more places, attracting more than 10000 participants a year. It is a place where small holders and big landlords meet. Small holders can compete with big owners and provides an edge for individual honour. In Kongu and Theni region, only Kangayam cattle are involved in these events, while other breeds are used in other locations. Individuals spend a lot of money to take part in these events. The winners are honoured with Shields and gold coins. The animal pairs that win these competitions have a great demand. Sometimes they are sold for prices ranging from Indian Rupees 400,000 – 700,000 per pair.

## THREATS FOR THE BREED AND PASTURE LAND

At present, a little over 46% of the country's land area is cultivated and is becoming increasingly scarce. According to official figures, Tamilnadu lost more than 10 lakh hectares of agricultural lands between 1991 and 2003.<sup>8</sup> The report also states that the total national income from agriculture in 1951 was 55% which reduced to 24% in 2003 and has affected both cultivators and agricultural labourers, thus leading to phasing out or abandonment of farming as a livelihood. The recent globalization policies have led to rapid industrialization and urbanization leading to conversion and shrinking of area under Korangadu into real estate and establishment of industrial units, pollution of irrigation sources, conversion of grazing

<sup>7</sup> S. T. Baskaran, India Magazine, Jallikattu in Tamilnadu: bull vaulting, Vol.5 No.3 1985.
 <sup>8</sup> Report of the Committee on State Agrarian Relations and the Unfinished Task in Land Reforms Draft Report 2009

lands to intensify agriculture or for real estate have been directly responsible for the decline of the system. Land use data on Tamilnadu indicate that the amount of land put to nonagricultural use has consistently increased over time. In the 1960s roughly one tenth of Tamilnadu was put to non-agricultural purposes, which increased to one seventh of the area pointing to industrialization and urbanization. Another important factor is the wrong classification of Korangadu as wasteland. Instead this should be classified as grazing or pasture land.

There are a large number of textile bleaching and dyeing units in Tiruppur, Erode, and Karur, which have contaminated the Noyyal, Amaravathy and other water bodies.<sup>9</sup> This has been reported as a major threat to agricultural lands and cattle living along the river across its entire length. It is indeed a chemical hotspot. The recently carved Tiruppur district and its



associated dovernance has triggered escalation of land prices thereby creating a major market for Korangadu lands.

Recently several alien invasive species like Unnipudu (Lantana camara), Seemakkaruvelan (Prosopis juliflora), Vellaipudu (Parthenium hysterophorus) are taking over these

The Polluted Noyyal River that runs through Coimbatore, Tirupur, Erode & Karur districts

grazing lands, and the breed do not thrive on these species. Plastic bags that are thrown out in the open are another major threat since sheep and cattle die after consumption since they cannot digest them.

The farmer is pushed all along by various factors - first by shrinking land use for breeding purposes due to land tenure policies, then by industrialization, polluting the natural water sources, further by mechanization of agriculture thereby giving up traditional methods and succumbing to newer methods, and in addition to these factors the competition from alien species for land space, even further by no control over the mindless use of plastic, thus narrowing all options for a livestock keeper. In spite of these factors the livestock keeper still manages to continue with traditional practices in a small way as they still feel that it is a sustainable option. Against these odds, the breed is still intact with its inherent characteristics providing hope for humans and for the animal it is despair.

## COLONIAL AND POST COLONIAL LAWS AND POLICIES AND THEIR IMPACT ON PASTURE LANDS AND AGRO **BIO DIVERSITY**

During the colonial period, these pasture lands used for grazing were held under patta and assessed at one fourth of the cultivable lands, known as Avan pillu vari (Avan Grass Tax). The pressure on Ayan pillu lands for tillage started as early as 1855, when it was reported that the population and prices rapidly escalated. Land became profitable for tillage above pasture and were therefore broken up by the owners themselves and were brought under the plough. This led to increased dependence on Government lands known as parava-pillu lands (scattered grasslands) for the purpose of grazing. The privilege of grazing this scattered grasslands was usually rented to the village headmen, provided there were no other takers for cultivation. Subsequently, these grass lands were turned into patta lands when there was pressure on land use for cultivation and eventually started disappearing. Not being able to control conversion, the Government decided by 1875 to charge full assessment for all lands whenever they were converted for cultivation purposes.<sup>10</sup>

In the post colonial period, land reforms had a significant impact on pasture lands used for raising and maintaining the Kangayam Breed. The major objective of land reforms promoted by the state was to achieve an egalitarian society through redistribution of ceiling surplus land among tillers and landless poor and to increase land productivity. The Government of Tamilnadu enacted the Tamilnadu Land Reforms (Fixation of Ceiling on Land) Act 1961 which came into force on 6.4.1960 (almost a decade after the Government of India Act 1952 was passed). According to the State Act the maximum extent one family of five members could hold was fixed as 30 standard acres. For every additional member in the family, additionally 5 standard acres were allowed, subject to a maximum of 60 standard acres. In the year 1970 the ceiling was reduced from 30 to 15 standard acres by Act 17 of 1970. In 1972 Act 20/72 the overall ceiling limit was reduced from 60 to 40 standard acres. This was further reduced to 15 standard acres. Subsequent policies framed the death knell of the Kangayam cattle. Therefore, post independence land reforms and land ceiling act further reduced the possibility of maintaining and using grazing lands for breeding.

Data on changes in land utlization pattern in Tamilnadu during 1960-61 to 2001-02 adds strength to the above argument. The data indicates a sharp decline in 'Permanent pasture and other grazing land' from 334,000 hectares in 1960-61 covering 2.6% to 121,000 hectares covering 0.9% of the total land extent of Tamilnadu in 2001-02.11

## WAY FORWARD

A few important scientific studies have been conducted which are very much in favour of Kangayam cattle for varied purposes. Information about the breeding tract, management practices, breed characteristics related to morphology, physical traits, body weight, production performance, draught capacity, milk production, lactation length, characteristic of milk, genetic parameters and biochemical and molecular characterization are available.<sup>12</sup>

<sup>10</sup> Manual of Coimbatore District, The Presidency of Madras, 1887. <sup>11</sup>Nataraj and Jayaranjan (unpublished monograph) <sup>12</sup>Panneerselvam, Kandasamy, Kangayam Breed: Retrospect and prospect, 2008. The Biological Diversity Act 2002 of the Government of India has established a three tier regulatory structure: the National Biodiversity Authority (NBA), the State Biodiversity Board (SBB) and the Biodiversity Management Committee (BMC) at the Panchayat level. The BMC is mandated with the task of preparing Peoples' Biodiversity Registers (PBRs) for documenting biodiversity and associated traditional knowledge at the panchayat level. As a first step details about various aspects of the breed and Korangadu need to be recorded in the PBRs to enable draw future plans for the conservation and sustainable use of the breed. Raising awareness on the documentation of biodiversity among the people and local elected bodies is crucial and need of the hour.

Several big villages, small towns and cities in Tamilnadu employ cattle for conservancy work that contribute to hygiene and cleanliness. To cite some examples, there are 150 pairs of bullocks in Erode Municipality, 170 pairs in Tiruppur, and 370 pairs in Coimbatore (October 15, 2009, The Hindu), all of which belong to the Kangayam breed and capable of pulling heavy loads. There is a need to explore alternative uses for the Kanagayam breed to ensure its continuity.

Another important area and relevance is dung and urine for organic farming. Urine and cowdung is used to make Amirthakaraisal, Jeevamrutham, Panchagavyam, Vembuastram, Agniastram as alternatives to NPK and pesticides. There is a growing popularity and demand for farm yard manure due to the increased awareness among farmers and consumers about the benefits of consuming environmentally friendly agricultural products, which can aid in the sustainable use of the Kangayam breeds.

## IMPORTANCE OF KORANGADU AND KANGAYAM BREED IN THE LIGHT OF CLIMATE CHANGE AND AGRO BIO DIVERSITY



In Climate change three important factors are discussed namely, resilience, mitigation and

adaptation. Animals belonging to the Kangayam breed have low water requirement, capacity to withstand higher temperatures, have a low basal metabolic rate and thereby a low feed requirement, high disease resistance, capacities to swing their tails to ward off flies and insects, high mobility, high foraging capacity consuming what is not required for humans and to consume and survive on poor quality feeds such as palmyrah leaves, neem leaves, and consumption of small quantities of pods of Vellai velan. The resilience capacities of integrated systems consisting of trees, grasses, legumes, livestock and nutrients produced is likely to help in adaptation. The Korangadu and Kangayam Breed therefore have the potential for high resilience and adaptation to climate change, notably increased temperature and decreased water availability. In addition, the milk has health value as it is very rich in poly unsaturated fat. As far as mitigation is concerned, it is only an intelligent way of employing combined processes such as organic farming, biogas, and having grass-tree ratio, as trees lock-in carbon.

In the current context, a member belonging to the Pattakarar family having keen interest in breeding, improvement and in-situ conservation of the Kangayam Breed has taken up the cause and established the Senaapathy Kangayam Cattle Research Foundation at Kuttapalayam village, Kangayam Taluk, Tiruppur District. One of the key objectives of the trust is to explore ways and means to protect and use Korangadu silvi-pastoral system for in-situ conservation and sustainable use of the Kangayam breed. Animals are maintained, bred and continually improved through systematic selection, cross and pedigree maintenance. Pedigree bulls are used as stud bulls for inseminating animals on a free service basis. Heifers of good quality animals are provided to landless women and families through a credit scheme (Cattle varam) giving an allowance of a time period of 10 months. Training programmes on organic farming on the use of urine and cowdung are also conducted<sup>13</sup>.

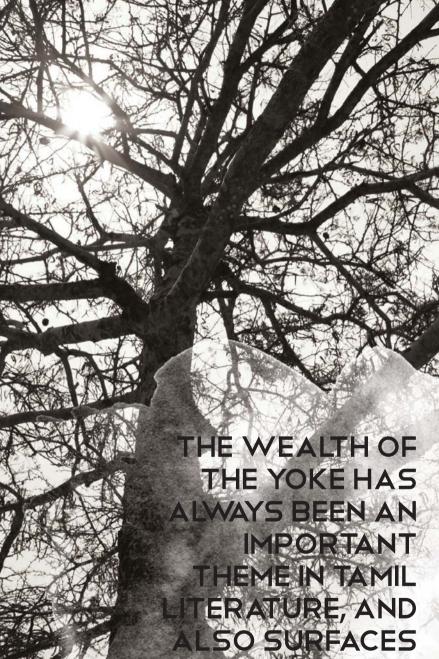


13 www.kangayambull.com

### CONCLUSION

The Wealth of the Yoke has always been an important theme in Tamil literature, and also surfaces in inscriptions. Tamils, being a knowledge based society have always discussed this in a conscious and mindful manner. While romanticizing the past, the value of animal genetic resources goes far beyond their current use as they provide options for the future; a breed or a population that is of little significance now, may be extremely valuable in the future<sup>14</sup>. This is precisely the basis of conservation, which leaves more options for tomorrow.

Time and again, conservationists have acknowledged the importance of traditional knowledge and practices of local communities. These practices are a mix of age old wisdom with new ideas and go beyond the realm of modern science and strongly rooted in culture and religion. The problem is traditional knowledge being mindlessly replaced by modern knowledge without taking the broader holistic view into account factors that have become detrimental to the environment and endangering the very existence of the breed and pasture lands. Initially the threats were factors such as industrialization, abandonment of this breed has opened the lands to be preyed on by realtors sandwiched by narrow interpretation of Government policies is likely to erase the knowledge of local communities, leaving no trace of heritage and history except on paper. Only a matter of honour and pride prompts a few farmers to hold onto the Kangayam cattle and the Korangadu grazing lands. State support is essential for the continuity of the breed.



ININSCRIPTIONS

<sup>14</sup> Biodiversity Indicators Partnership Indicator Fact Sheet 1.5.2

## Senaapathy Kangayam Cattle Research Foundation

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वहाँ है खुशहाती ॥

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