

History of Khazan land management in Goa: ecological, economic and political perspective

By Dr. Nandkumar M. Kamat, Dept. of Botany, Goa University

(Member, Agricultural land development panel, Revenue department, Government of Goa-1990-92)

A paper presented at Goa University, Department of History, Seminar on History of agriculture in Goa, March 12, 13, 2004

A simple definition of the Khazan land from Goan ecological perspective which I offered in 1999 is- Low-lying, mangrove-fringed, coastal saline lands (mesohaline) drained by the tidal estuaries which have been subjected to planned and contour-integrated topo-hydro-engineering by the local communities to produce reasonably sustainable productive agro-ecological & agro-economic systems.

The Structure of the Khazan lands:-

Generally any low-lying land close to a mangrove-fringed estuary reclaimed by salinity control structures can be called as khazan land. But this definition falls short of the incorporation of the elements which define the anthropogenic ecosystem architecture of the 'true' Khazan lands in Goa.

' True' Khazan lands are carefully designed as topo-hydro-engineered agro-aquacultural ecosystems. The most important aspect of the structure of these lands is based on the principle of salinity regulation and knowledge of the tidal clock. The structure of these lands depends on their distance from the nearest watershed and the tidal estuary. In other words it is the control of balance between the availability and flow of freshwater(rainfall+aquifer):saline (estuarine)water that determines the existence of the Khazan lands. Hypersaline environment on account of ingress of saline waterfront renders these lands useless for agriculture. Surplus freshwater flow causes undesirable vegetation succession, rapid spread of weeds and leads to eutrophication. These are thus meta-stable agroecosystems. Efficient maintenance of the structure of this ecosystem is the key to unimpaired services, economic functioning through the fine tuning of salinity control.

The functioning of the Khazans:-

The Khazan lands function as useful agro-ecosystems and agro-economic systems.

1. The outer embankments protect the khazan lands from saline water intrusion, at high tides the sluice-gates permit only the volume of water which could be stored in backwaters and other channels. At low-tide this water could be made to drain out. While draining the fish can be trapped in a gill-net attached to the sluice-gate. This arrangement helps in Sluice-gate dependent estuarine backwater fisheries.
2. The fringing mangroves absorb the erosive energy of the tidal currents.
3. The backwaters with their overflow barriers protect the Khazans from inundation at high tides. The backwaters also dilute and disperse salinity with the rise in the inflated flood-plain during the monsoon when high tides mix up with turbulent sediment rich freshwater flowing down the ghats.
4. The Khazan lands act as anti-flood system- terminal recipients of coastal watersheds. These act as temporary storm water storages during the SW-monsoon. This helps in partial recharge of the depleted aquifers. Monsoon-freshwater flow leaches out excess of salt from the cultivable area permitting cultivation of salt-tolerant varieties of rice.
5. Intensification of the agro-ecosystem is achieved by high-density plantations and intercropping on bundhs, designing of salt pans and small-scale pond-fisheries.

6. Micro-irrigation ponds are useful for production of winter crops of tubers, of vegetables and legumes.

The distribution of the Khazan lands:-Where these lands occur?.

‘True’-managed Khazan lands are located in the estuarine basins of Tiracol, Chapora, Baga, Mandovi-Zuari complex, along Cumbarjua canal, Sal, Talpona and Galjibaga rivers. There are several approaches to locate these Khazan lands. Eco-geographical analysis (by using the structural elements of the khazans for photointerpretation) of survey-maps may reveal an area of 20,000 ha. under Khazan lands. The report of the task-force (1982) under M.S. Swaminathan indicates 17,000 ha. of Khazan lands. Dr. J.C.Almeida’s volumes (1967) give village community-wise figures totalling 6386 ha. under the Khazan lands and 440 ha. under the backwaters. The report of Agricultural Land developmental Panel (1992) indicates 73,33 ha. of Khazan land managed by 138 tenants associations in 8 talukas.

A brief ecological history of the Khazan lands.

Only palynological data sheds some light on the antiquity of reclaimed coastal mangrove swamps (ref. M. D. Subhash Chandran- On the ecological history of the western ghats, Curr. Sci.Vol.73, No.2, 25 July 1997,pp. 146-154). Khazan lands are anthropogenic agro-ecological and economic systems which appear to be architected by the first neolithic (3000 BP) coastal settlers. The Khazans indicate socio-ecological compartmentalization between estuarine fishing communities and the upland agro-pastoralists. Pre-dominantly estuarine-fisheries dependent settlers were instrumental in reclaiming the ancient coastal mangrove wetlands because only they had the necessary eco-technological knowledge. This researcher identifies the ancestors of GAVDA community of Goa as creators of the Khazan as even to this day this community maintains the traditional eco-technological knowledge about the creation, repair and maintenance of the Khazan lands. The Gavda dominated settlements are close to Khazan lands. The Gavdas transited from a ‘ hunter-food gatherer’ stage to a settled lifestyle in competition with the deccan agro-pastoralists and estuarine fishing community of Goa (identified as Kharwis). They were searching for ecological space. The impenetrable coastal hillside forests did not yield much of the fertile land to the primitive agro-pastoral communities. Fertile land was scarce. Pressure on marginal coastal lands led to the discovery of the art and science of the Khazan lands. According to this researcher the first Khazans in Goa must have emerged on island ecosystems- i.e. at Divar, Choroa, Dongri, Qulelloshim etc.. These must have become prototypes for settlers in the other estuarine basins. From 1000 BC to 1000 AD. the Goan Khazans were taking shape. The peak period of Khazan engineering must have occurred during the Rashtrakuta-Kalyani Chalukyas imperial period (9-11 th. Century). Better knowledge of navigation, hydraulics, geo-engineering imported in Goa must have definitely influenced the Khazan land management structures.

Historically speaking the Khazan lands of Goa could be classified into- I. The original prototypes (c. 1000 BC –500 ad.) examples- Divar, Markaim, Dongrim. II. the modified medieval (850 AD- 1200 AD)- Paliyem, Parcem, Mayem. and III. those with colonial engineering influence (1510-1961)- Calapur, Rachol, Curtorim, Lotulim.

Khazan is an exclusively Goan term. It is close to the colloquial Konkani term ‘ *Kharsan*’ for saltiness. Socio-linguistically, it is a 2000 years old word, probably corrupted and modified from the original, pure Sanskrit word ‘ Ksharjanaka’ (=salt producing), a conjunction of two words (Kshara=salt) + (Janaka=producer) used during the reign of Imperial Mauryas. Kautilya’s classical text ‘ Arthashastra’ has described Saline lands and the regulation of Salt trade. A branch of Imperial Mauryas ruled Konkan during 5-6 th century A.D. This dynasty is known as Konkan Maurya dynasty. Ksharjanaka got corrupted as Kharjanaka (Mauryan)>Khajjanaka (post-Mauryan)>Khajjana (5-7 century)>Khazan (in vogue for at least past 1000 years in Goa). Such coastal saline lands are

commonly found in Konkan (Raigarh & Sindhudurga district of Maharashtra) and Goa (North & South Goa districts). Khazan lands have saline soils which are found in the agroclimatic zone no.11 and 12 on the east and west coast of India. In Maharashtra, similar soils are known as 'khar', 'kharvat' 'khazan', in Karnataka as 'Gazzani' whereas in Kerala these are called as 'Pokkal' and 'Chemeen kattu'.

Khazans in history:-

References of old 'Khazan' lands are found in land grants of ancient rulers of Goa the Bhoja kings, such as Prithvimalla Varman (Kapoti Khazan and Pukkoli Khazans located in the Island of Divar-Tiswadi) [400 A.D], Anirjitvarman [500 A.D], Khazan lands of Markaim-Ponda purchased by prime minister of Goa Kadambas Gandagopal [1106 A.D]. There was a tradition of naming the newly reclaimed 'khazan' lands after the reclaimers. The first places of khazan lands brought under cultivation in Marcaim village of Ponda taluka by Maddo and 'Pay' were named as 'Maddyache-mulak' and 'Payche-mulak'. Cultural historian, Shri Anant Dhume, Ex Director of Land survey has shown the evidence of the involvement of Havig brahmins in building of lateritic drainage canals of the khazan lands of Old Narve at Divar Island. From these accounts, it appears that marshy land reclamation and drainage canal / sluice gate construction technologies were well developed in ancient Goa. Massive external and internal embankments were constructed using cheap, locally available, durable material for reclamation of the mangrove swamps. Certain professional managers called 'Kamats' were entrusted by the Village communities with the task of maintenance of these embankments and this profession was known as 'Kamatpon'.

The Village communities, 'Gaunkaris' or comunidades had appointed voluntary bodies called 'Bous' for specific tasks related to khazan land protection. Besides, the kings had appointed revenue and land tax collectors called 'Bhojakas' and 'Ayuktakas' to mobilise the revenue from khazan land. 'Bhojakas' and 'Ayuktakas' to mobilise the revenue from khazan land production.

The pre-1961 Khazan lands:-

The pre-1961 condition of the Khazans can be studied only from the comunidade controlled Khazan lands. The effectiveness of any land management system is complicated by the peculiar land tenure system prevailing in Goa. There are at least seven types of tenures in Goa. These are 1. The lands held by the Government 2. Those under the comunidades, 3. the religious bodies, 4. municipalities, 5. private institutions, 6. private individuals and 7. misericordias or charity institutions.

It is difficult to precisely identify the ownership of khazan lands under these seven tenure types

The land management under the Comunidades involved a number of tasks; the major ones being as follows:

- 1] Construction, maintenance, repair and supervision of bunds.
- 2] Construction, maintenance, operation and supervision of sluice gates.
- 3] Dredging and desilting of rivulets and backwaters.
- 4] Regulation of intake of saline water and distribution of irrigation water.
- 5] Leasing out of farms and fishing rights and the bunds for cultivation.
- 6] Fixing up of penalties for breach of rules.
- 7] Minor farm development works and rarely some major works.

There were 81 comunidades in Goa which owned khazan lands. The Code of Comunidades was the only legislation upto 1958 and only for two years the Diploma Legislative 1776 and the

Portuguese 7467 were in operation in addition to Code of Comunidades. The Code of comunidades was an intelligent piece of work based on experience while the Diploma and Portaria were meant only to protect the interest of embankments eroded by the barge traffic.

The Code of Comunidades , apart from other provisions which are not connected to bunds, provided that:

- 1] Any breach must be closed within 24 hours of its giving way by the 'Bous' [an association of the cultivators of khazan lands]
- 2] Annual ordinary services of maintainance
- 3] Annual or emergency extraordinary services of the upkeep and repairs of the bunds, sluice gates etc.

The main pre-1961 agrarian cooperative management system for Khazan lands:- 'Bous'

The 'Bous' generally executed at their own cost the works of 'Chonoi' [staffing of 'bunds' with fresh mud], 'tor' and 'cupto' [the reinforcement with mud and straw] and the closure of breaches in the bunds and the replacement of the shutters of the sluice gates. In Jua [Tiswadi] the 'Bous' had to guard the fields whereas in Cundaim [Ponda] , it kept a watch over the bunds, the expenses for which were borne by the community.

After the promulgation of the 'Regulamento das Comunidades' in 1882 , the Bous' as an association was made compulsory for the tillers of the khazan . Anyone taking the khazans' on lease automatically became its member without any formality. If the lease should transfer his rights to a third party, the sub-leasee also became its member, the lessee being responsible for the inherent duties of the 'Bous'

Each khazan had its 'Bous' and the matters common to all the khazans of a village were dealt by the 'Bous geral' formed by the tillers of all the khazans. The 'Bous' employed 'Kamat' and 'Paini' ,the first one being selected amongst the 'gaunkars' to supervise the works which the 'Bous' had to execute. The 'Paini' was the watchman of the bund and the accounts were maintained by the Kulkarni' of the village.

The 'Bous' used to get certain remuneration in cash or kind and had to be alert on the bunds for which it was responsible. There was a 'Vigia' or a watchman on the bund for spotting infiltration or lack of height and this 'Vigia' immediately reported to 'Bous' which in turn collected the farmers responsible for the area and got the infiltration checked. If the breach occurred outside the purview of the 'Bous' , it used to be evaluated , auctioned , adjudicated, paid and the expenditure incurred was recovered from all the beneficiaries protected by that bund. This recovery was made at the first available opportunity when the crop used to be harvested. The paddy was not allowed to be lifted till the dues were cleared , to which a 'Chit' was issued.

For small works the 'Bous' collected the material like stakes, stones etc. and if it felt a shortage of men or material, then it called for the neighbouring 'Bousos' for help. This was a systematic method of the control of maintainance and repair of bunds. The sluice gates were put to open bid for period of one year or three years as the case may be.

The retention of saline water for breeding fish was considered as a crime and was punishable with both fine and imprisonment except in case it was authorised by the Government . This authorisation was given only when agreed to by Directorate of Agriculture, Health Officer and Captain of Ports and was based on written application through proper channel and the file went upto Governor General .

Such authorisation was given only for those who applied for retaining saline water not exceeding 10 to 20 cms. For eradicating the weeds, snails etc.

All the members of the 'Bous' were duty bound to personally work for the repairs of the breaches on the bounds and to keep a watch over work done. Besides, the 'Bous' in the New Conquests had to perform and finance some religious ceremonies. The rights and duties of the members of the 'Bous' were recorded in a book called 'Caderno de Obrigacoes'. This book was displayed in the hall of the community a few days before the lease auction of the paddy fields, in order that the intending bidders may take note of the same.

The proceeds of the sale of the damaged and worn out wooden shutters of the sluice gates, the rent of the remnants left after the sub-division of the paddy lands into plots and whatever else granted to the 'Bous' by the 'Institutos Organicos' was its income. The 'Projecto de Regulamento das Comunidades' 1879, also refers to the rights of bringing the bunds under cultivation without payment of rent and of fishing.

The community of Cundaim besides giving to the 'Bous' the right to the whole income from the extraordinary fishing and a half of the income from the sluice gates, authorised its members to carry out fishing once a month on the new moon day in the 'Purvals' that is in the drains that run on the inner side of the bunds. The community of Chorao allowed the 'Bous' to cultivate millets on the bunds.

The vestiges of the old custom of allotment of the produce of some fields for the expenses towards the bunds and other works were in vogue till recently in the village of Quellosim. The paddy field 'Bundkhazan' or 'Bundkamat' paid 'foro' to the community and had the obligation of defraying the expenses connected with the maintainance of the shutters of the sluice gates, construction of the dams for the reservoir of water, desilting of the rivulets and other similar works in that village. The community of Betki [Ponda] paid a fixed annual sum to the distributors of waters of paddy fields and for the work of replacing the shutters of the sluice gates. The surplus of the deficit of the 'Bous' if any was shared by its members at the end of the period for which the paddy fields has been auctioned. If the lessee should transfer his rights to a third party the sub-lessees being responsible for the inherent duties of the 'Bous'.

Abolition of the Bous

Increased barge traffic from the year 1950 compelled the revision of the whole system of protection of the bunds by Diploma Legislation and Portaria in 1958. This led to the setting up technical cells and special funds to cover the increasing damages caused to the bunds. As such, the 'Codigo das Comunidades, 1961' abolished the 'Bous'. The Governor General was empowered to establish such association wherever they could function properly.

The 'Bous' system of khazan land management had many positive points which could have been considered in totality before the framing of the 1975 rules under the Agricultural Tenancy Act, for constituting Tenant Associations which were poor substitutes for the 'Bous'.

The 1961 Comunidade Code prescribed that all the expenses of khazan land management were to be borne by the comunidades and tenants were responsible only for cultivation of plot leased out to them and pay the fixed rent. The Comunidades which were situated near the estuaries naturally had to divert a large share of their income on maintainance and repair of bunds. Upto 1959, the Comunidades spent Rs. 32.00 lakhs on this account which increased to Rs. 39.00 lakhs in 1960-61. However this could not curtail the damages to the bunds and incessant flooding of the khazan farms. The limitations of Comunidades awakened the Portuguese Government which appointed a Commission for embankments [Bunds committee] in 1959-60 and a technical brigade was organised to

execute its decisions. By 1961, this brigade spent Rs 8.00 lakhs and reclaimed only 960 ha. of land

The production from Khazans

It has been estimated from 1970. The Anthony de'souza committee on land reforms (1970) has put paddy yield from khazans at 2105 kg/ha. which was much above the national average for that year (1500 kg/ha.). The cost of production was estimated at Rs. 625/ha. and the net income Rs. 625/ha. An economic holding size of 4 ha. was recommended.

The type of Economic activities carried out in the Khazan lands:-

Annexure E.43 of the ALDP report (1992) has given the estimate of existing employment in the Khazan lands.

We may confirm the following economic activities dependent directly or indirectly on the Khazan lands.

1. Agriculture- paddy, ragi, legumes, rainfed and irrigated;
2. Horticulture:- Coconut, mango, Cashew
3. Horticulture:- Vegetables, tubers, fruits and flowers
4. Crude pisciculture
5. Organised semi-intensive pisci-culture
6. Sluice-gate auction based marginal fisheries
7. Backwater fisheries
8. Food-processing industry:- toddy, vinegar, dried fish, prawns etc.
9. Exploitation of minor minerals:- shells for lime & mud for bricks
10. Production of crude Salt
11. Building of country crafts/canoes
12. Construction & maintenance of Bundhs & sluice-gates
13. Recreation/tourism/water sports
14. Fuel wood exploitation esp. from fringed mangroves
15. Other miscellaneous services such as navigation

The ALDP report had estimated 54,600 direct and 24,000 indirect jobs in the above activities. .

The estimates of production from Khazan lands are difficult to quantify. But these may range RS. 75-150 crores per annum. The pisciculture activity itself invests around Rs. 200 lakhs/year and the returns are Rs. 1000-2000 lakhs.

Political aspects of Khazan land management

The political history of Khazan land management and the political economy of Khazans offer disturbing insights into transformation of an agrarian society in 81 villages in 8 talukas within just 25 years after liberation. There are three sources for capital formation through Khazan land resources-1. Siphoning of funds by manipulating the accounts of the tenants associations 2. Contracts for repair and construction of Khazan bundhs 3. the auctions for sluice gate fishing rights. Through the first route

annually a few crores are pilfered by the managing committee members. Through the second route the funds of soil conservation division of the state government are drained out to the tune of Rs. 50 lakhs to 500 lakhs annually. Through the third route, about 600 sluice gates are annually auctioned and a profit of Rs. 8-10 crores is made without any accountability to any government agency. According to my own estimates, Since 1963, systematic plundering of khazans through these three routes, with active political support has pumped in an unaccounted capital of Rs. 200-300 crores in Goan society. This has given rise to a very resourceful new political class in Khazan land villages. The senior MGP and Congress politicians have pleaded helplessness to introduce reforms owing to involvement of their main supporters in the Khazan plundering business. I would return to this point again before concluding.

The barge traffic began taking a heavy toll of the Khazan lands and the Portuguese government appointed a committee in 1959 to address these problems. The A. L. Dias commission or GAO land reforms commission appointed in February 1963 submitted its report in 1964. It led to agricultural tenancy act, 1964. However the report was not tied to another report prepared by NCAER in 1964, the techno economic survey of GDD. The survey had mentioned the damage to khazan lands and had identified the hot spots of erosion. But the government ignored the recommendations of such a reputed national agency and went ahead with a populist, vote catching tenancy act. Goan farmers required mass education to transit from the old system to the new management system under the tenancy act but the political class was busy with merger, anti merger movement. For 11 years there was tremendous chaos and confusion over the issue of Khazan land management. Bundhs were breached and massive flooding had been reported. From 1964 to 1973 the government had to bundhs running into a cumulative length of 233 kms. to protect 12,709 hactres of khazan lands. This was a period of farmers' disinterest in voluntary work and increasing dependence on government sponsored contractors' lobby. The foundation of the powerful lobby of Khazan bundh contractors was laid during these 10 years and later by accumulating capital in this lucrative business many of them got into politics. The subsection 26(3) transferred the duties of carrying out the works of maintenance, repair and conservancy of banks and bunds to tenants. This act relieved the comunidades from their duties of khazan land management. Most of the sections of this act have never been implemented, For example, sub section 38(4) makes stagnation of water for the purpose of catching or breeding fish in any land used for agriculture a cognizable offense. The government took 11 years to invoke powers under section 42 A to frame the rules for discharges of joint responsibility of tenants. These 11 years were wasted because there was no proper education of the tenants in the khazan land management. They were used to Bous system for centuries. The 1975 rules made it compulsory to form tenants associations. The mamlatdars acquired powers under the new system and new age of corruption, malpractices and mismanagement commenced. Most of the tenants had never seen a copy of the rules and they were at the mercy of the talathi and the avval karkuns. The managing committees were voluntary and did not have any technical staff. On paper the rules seemed effective but in practice the tenants associations were hijacked by the pisciculturists. Section 35 had transferred the responsibility of the repairs of bundhs to the tenants, Section 36 gave the government the powers to assume management of uncultivated land. This is a section which all the political parties ruling GAO at different times were afraid to invoke. The spirit of the tenancy act was good because section 37 has prescribed the standards of cultivation and management. The government also moved eighth amendment of 1971 to specify the manners of cultivation and management of khazan lands.

The Land revenue code of 1968 is one of the greatest failure in political history of GAO. This voluminous legislation was not understood by the administration and there was no political will to implement its' provisions. Section 19, 31, 36, 49 of the code concern Khazan lands. But it is free for all situation because the government does not even understand the procedure to manage the alluvial lands. In 1967 Dr. J.C. Almeida had published two volumes on agricultural activities in GAO.

There were two forces at work during the rule of MGP between 1964 to 1979. One group from MGP, UGP and Congress believed that more money could be made by flooding and converting khazan lands and salt farms for pisciculture. Another group believed that modern agriculture would usher in green revolution. This group within MGP was influenced by socialist ideology and it was behind the 8 th amendment. On the contrary when the Jaisingrao Rane committee was appointed in 1973 to see the feasibility of using Khazan lands for pisciculture the group in UGP was excited because they had seen the mechanized trawler boom in GAO. In fact it was none other than ex-CM Francisco Sardinha who tried to generate opinion in the last assembly session under the MGP rule in april 1979 to favour pisciculture in Khazan land. Even today he does not hide his opinion about uselessness of agro-horticulture in Khazan lands and his love for pisciculture. In January 1981, within a year of the Congress party coming to power, there was a committee under the minister of agriculture to scrutinize applications for intake of saline water in Khazan lands. Interestingly the powers used to appoint this committee were under the 8 th amendment which was aimed to promote agriculture. Despite this contradiction the government under Pratapsingh Rane could be only a silent spectator to the growing clout of the pisciculture mafia. In 1982 the task force under M.S. Swaminathan had recommended a selective and cautious approach towards encouraging pisciculture in its' eco development report. The much praised Goencho ramponkarancho ekvot which agitated for a marine fisheries regulation bill, maintained a stoic silence over the plundering of the khazans, destruction of agriculture and loss of jobs by small and marginal cultivators. Actually the interests of small and marginal fishermen-the ramponkars, the magkars and the small Khazan farmers were identical. The villages of Merces and santa cruz which have vast Khazzan land and salt pans were seriously affected by breaching of the bundhs and flooding continuously from 1981. This was not a coincidence but an impact of the Congress governments' policy to encourage pisciculture. In 1988 the citizens of these villages agitated. I filed a PIL in Bombay high court in October 1988 on this issue. The court appointed a commission and directed the government to hear me in person. Finally the government had to spend a crore of Rs. to permanenly repair the damaged bundhs and roads. On August 11, 1990, I submitted a memorandum to the then revenue minister Dr.Zalmi to appoint a government panel to study the problems of the Khazzan lands. Dr. Zalmi's government lasted for only eight months. But just two weeks before its' resignation the government constituted Agricultural land developmental panel under the chairmanship of the revenue minister. The members included besides myself, the director of agriculture, dr, N.P.S. varde, dr.J.f.Martins,. Dr. J.B Sardessai, mr.Percival Noronha and K.M.Nambiar. Nothing moved till Ravi Naik came to power in January 1991. Then ALDP became active and finally submitted the report On March 20, 1992. On 28 March 1996, the then independent St.Cruz MLA Victoria fernandes introduced a private members' resolution recommending implementation of the ALDP report. There was strange silence on opposition benches. As expected the resolution was defeated despite active lobbying by the St.Cruz MLA who was supporting the ruling party led by Mr.Rane at that time. The report gathered dust till 2000 when the secretary, law Mr. Subbanna decided to draft a new act on Khazan land management. He solicited my help. Both of us worked on the draft. Then he retired, the government changed. I submitted a copy of the draft bill to the CM Mr. Parrikar in November 2001 and he promised to follow it. In the meantime the new minister for water resources Mr. Khalap got interested in the bill. But there was a tussle between two departments-the agriculture and water resources, over the role of soil conservation division. The agriculture department has a vested interest in repair of Khazan bundhs. They did not want to surrender this role to water resources department. The draft bill was listed for the cabinet agenda in February 2002. But it could not see the light of the day because the assembly was dissolved. In September 2003 mr. Parrikar told me that the government had dropped the said bill. In Gomant vishwa sammelan held in January this year,H.E. the governor made a shocking recommendation in his article to promote only pisciculture in Goa's 18,000 hactres Khazans. When I protested and then met him personally to explain the facts, it was revealed that he had used an old 1975 file note based on Jaisinghrao Rane committee report which had made the recommendation.

The governor admitted that he was not aware of ALDP report.

There is almost perfect unanimity within the MGP, Congress, BJP and UGDP that nothing at present needs to be done to reform Khazan land management or control the illegal pisciculture and damage to the fertile lands. The Khazan farmers are divided. The trade unions do not support them. The urban based NGOs have no understanding of this problem which affects 5% of Goa's total land and about 100 thousand people. There is neither political will nor administrative interest to push for reforms such as Maharashtra Khar land act. Khazan lands have suited various people and organizations during the Konkan railway agitation. Now these are orphaned. Ecological damage, economic disaster and politically supported mafias have sealed the fate of the Khazan lands of Goa. My aim behind presenting this paper was to ring an alarm bell, a final warning that time is running out for such agroecosystems evolved over 2000 years, and which are precious eco-fragile natural heritage assets.

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contact ID:- nandkamat@gmail.com