

## **Shifting Sands in Sri Lanka - Mobilizing and Networking for Collective Action by River Sand Mining affected Communities**

**Kusum Athukorala, Champa M.Navaratne**

The Mahavamsa, the oldest written chronicle of Sri Lanka (circa 223 BC) has the following early enunciation upholding the commons ....  
“O Great King ....The land belongs to the people and all living beings. Thou art only the guardian of it”.

1.Background Sri Lanka's construction industry contributing over 8% to its GDP requires over 7 million cubic meters of sand annually ( expanded in the short term due to additional demands of post tsunami construction) which is obtained from the country's river beds, river sides or mined from previous riverbeds and sand dunes. Though until recently manual harvesting was the norm, increasing mechanized and often illegal, river sand harvesting has caused major loss of water security and ecosystem damage due to lowering of water tables, bank erosion, land degradation and salinity intrusion; damage to infrastructure; increased health hazards and negative impacts on women. The steep cost increase of sand( over 250% over the last decade) has encouraged the growth of a politically powerful “ Sand Mafia “ operating uncontrolled in a country already saddled with a plethora of laws and regulations covering of natural resource use, within a poor regulatory environment which is further complicated by the prevailing security concerns.

A women's volunteer organisation, NetWwater (Network of Women Water Professionals) who engaged in a Gender and Water Dialogue in North Western Province in 2005 was initially requested by affected community groups to initiate an advocacy program to highlight damage due to river sand mining (RSM). Women, who previously had access to drinking water literally at their doorstep, now were forced to travel 3-4 kms in search of water due to impacts of RSM. After studying the extent of negative impacts in Deduru Oya, NetWwater activists catalyzed the formation of an awareness and advocacy network through intensive national media coverage (which upto then had been intermittent), building critical mass among activists, building national profile for the issue and enhancing awareness on the need for alternatives.

A linkup with other active civil society groups, religious institutions and universities led to the linkage of RSM action committees for three affected rivers,

the staging of two National Sand Mining Dialogues in 2006 and 2007, highlighting the issue at national level through media programs and profiling community needs with political decisionmakers. Two video documentaries were produced; school, community, agency as well as Police RSM related awareness programs were carried out and inter-community, inter-river linkages fostered. Though RSM continues to be a major threat to water and livelihood security, the control of which varies with the rise and fall of the politically motivated pressure groups, the networking initiative thus established with its media linkages continues to give a platform for RSM affected groups.

## 2. Collective action and environmental advocacy

River sand mining is fast appearing as one of the key factors affecting environmental and water security in South Asia. An internet search will reveal river sand mining (RSM) in South Asia as escalating rapidly; this was noted especially in the post tsunami construction boom; it is seen as an issue leading to conflicts and sometimes to advocacy and collective action; it is usually location specific and often is linked with high levels of violence and intimidation within communities.

Sri Lanka has an extensive background of campaigns related to collective action in cases related to environmental governance. Impacts of collective action and NGO/CBO interventions has been recorded in the case of the Thuruwila water transfer, the Eppawela phosphate mining issue, Upper Kotmale hydropower project, Muthurajawela encroachments and the Southern Highway. In many cases the issues and the resultant community/collective action were localised in Sri Lanka; but sometimes protests were conducted at regional and national level with the ultimately having recourse to the law. Basing their appeals on the National Environment Act No.47 of 1980 as amended by Act No.56 of 1988 and the Regulations made hereunder, NGO and CSO activists have an impressive record of successful judicial activism.

The activity described in the paper mainly covers an ongoing advocacy and awareness building program carried out 2005 onwards with river sandmining (RSM) affected communities in the river basins of Deduru Oya, Nilwala Ganga and Maha Oya with emphasis on Deduru Oya. The Deduru Oya reaches the coast at the town of Chilaw. This activity on occasion escalated into national level outreach programs through media interventions. It has implications for all other water bodies currently experiencing the same set of problems generated by illicit or unregulated RSM.

Increasing use of mechanized harvesting in the late 1990s has resulted in heavy localized turbidity, lowering of water tables, bank erosion, land degradation and salinity intrusion resulting in hardship both to the population and riverine ecosystems. With the decision of the Geological Survey and Mines Bureau (GSMB) in the 90s decade to expand the number of sand mining sites RSM has

increased in large measure in recent times (from 8 to 18 GSMB identified mining spots on Deduru Oya alone), affecting both the local farmers and domestic water users. In particular, concerns are raised about the increasing damage to drinking water sources, loss and damage to irrigation systems and agricultural lands and spread of vector borne diseases by providing the breeding grounds for mosquitoes.

The issue is more widespread than is officially acknowledged, affecting many rivers, irrigation reservoirs and water bodies throughout the country. According to a conservative guesstimate atleast 25% of Sri Lanka's 103 rivers are negatively affected due to illicit RSM at some point along its course. The network of irrigation systems especially in the Dry Zone of the North and Eastern Sri Lanka too is being similarly affected.

NetWwater (Network of Women Water Professionals), a volunteer group of women with water interests in Sri Lanka has been engaged in carrying out a series of gender and water dialogues. The RSM activity described in the paper was first identified as the result of a gender and water dialogue carried out in 2005 in North Western Province where female participants of loss of water security due to damage to drinking water sources. Further interaction with communities revealed the extent of environmental, structural and social damage caused by RSM in Deduru Oya and Ma Oya. This led to an attempt to work with affected communities in raising awareness, build linkages with other CSOs and activist groups while raising the issue with related state agencies.

As this paper documents an ongoing activity, it is largely descriptive but it attempts to highlight some of developmental issues related to environmental security and water governance for future study and research.

### 3. River sand mining - a second tsunami?

Sand is a mineral as defined in the Mines and Minerals Act No. 33 of (1992) of Sri Lanka and is the property of the state, the mining of which requires a permit. Sri Lanka's construction industry contributing over 8% to GDP requires over 7 million cubic meters of sand annually (now expanded in the short term due to additional demands of post tsunami construction and facing an annual 10% increase in demand which is obtained from the country's river beds, river banks or mined from previous riverbeds and sand dunes.

Artisanal sand mining had been the norm in Sri Lanka until the current law Mines and Minerals Act No.33 of 1992 (replacing the former Mines and Minerals Law No.4 of 1973) established the Geological Survey and Mines Bureau which regulates the exploration for, and mining of "minerals" which includes sand. The Geological Survey and Mines Bureau (GSMB) define deposits. Mining tenders are called by the Divisional Secretary (part of the district Administrative structure). Therefore two government agencies need to collaborate on issuing

licenses. These licenses are required by the Act to contain a number of conditions including a requirement that the licensee comply with all written laws relating to the environment and rehabilitate the land to which the mining license relates. However on local level investigation it has been found that the license form actually issued to applicants does not in some cases contain all the conditions required by the Act, or contains them in a diluted form. Therefore with fragmented responsibility, as well as external pressures from the sand mafia, there is poor regulation and enforcement in sand mining sites.

The post tsunami construction needs have tremendously increased the demand for sand and by extension by the damage to rivers. Release of offshore sand mined for state purposes have to some extent reduced pressure on demand and prices but without a clear strategy and tactical plan to meet demand, the problem is driving construction costs to uneconomic levels with high prices encouraging suppliers to secure sand at any cost. This has led to a situation where the Sri Lankan rivers are gravely endangered with negative impacts on water security.

The need to seek alternatives for sand in the construction industry has not been followed through at a policy or practical level; at certain cost levels, certain substitutes and aggregates may be cost effective and less damaging to the environment than the current degradation of rivers and waterways. It would appear that the supply gap could only be met by a clear strategy and involvement and investment of the state to mobilize its and private sector resources to satisfy demand both in the short and long term.

Off shore sand mining requiring major investment both in terms of machinery and infrastructure and holding of sand inventories in quantity before release of off shore sand of usable quality requires major capital, is not within the capacity of current suppliers of mechanized mining (mostly small contractors and machine owners). Nor is it possible for the relevant local authorities to invest or regulate given the “float” time between harvesting and release of sand from off shore sources. Thus it requires the state to take the initiative in this regard as otherwise the current policy declarations remain mere platitudes that are unenforceable for practical purposes. Some efforts are being made to use offshore mining as a solution but there is resistance from the traditionally minded building trade which questions the longterm stability of such constructions.

The negative impact of RSM is not limited to the riverine ecosystems in North Western province but also affects the mainly agriculture based livelihoods of the local population. The North Western Province (NWP), which is traversed by the Deduru Oya and Ma Oya has experienced high damage to rice and coconut cultivation with the lowering of water tables and increased salinity flows. Irrigation systems such as the Sengal Oya and the Wellangiriya lift irrigation scheme are badly affected due to RSM – the level of the river has fallen dramatically and banks have collapsed . The 1500 year old Kottapabbata stickdam is almost totally destroyed. The NWP is the site of Sri Lanka’s “Coconut Triangle” with the

most productive coconut lands which were at one time, the third highest foreign exchange earner for the country. Damage to coconut plantations ( their fibrous roots spread out rather than go deep and are easily toppled due to damaged to banks ) endangering livelihoods especially of agricultural labourers.

On the other hand these agricultural wage labourers can earn such high wages in illegal RSM (three times the normal daily casual labour wage) so that few - especially the police – want to upset the status quo even though there is flagrant violations of the law. In many villages in RSM prone areas, substantial numbers of young male school drop-outs has been reported as they prefer to earn money in RSM. The misuse of alcohol and drugs has increased amongst the youth (due to the fact that they have ready cash, sometime more than their own parents), thereby creating social disharmony. Water related health and hygiene issues, which has a detrimental impact especially on women further increasing their current domestic burden as caregivers is another form of social stress. The damage to riverine ecosystems and biodiversity is not assessed.

Unrestricted, unregulated and unmonitored sand mining in the absence of a clear policy, regulatory and legal framework exacerbates the problem to such extent that some temporary banning of sand mining in rivers that provided the usual source of supply has had a marked effect on the price of the commodity which has increased over 250% over the last decade and is further increasing at an alarming rate. The high prices and periodic bans have driven the problem from the normal mining sites of wet zone rivers to fragile dry zone irrigation areas such as Mahiyangana and Amparai. River sand mining has escalated even in very remote rural areas such as Kaltota and adjacent rivers and tributaries such as Kolamuna Oya and Mee Oya which had hitherto been free of commercial sand mining; this has resulted in acceleration of damage to a growing range of water ways, ecosystems and rural infrastructure.

In a country already saddled with a plethora of laws and regulations covering of natural resource use, within a poor enforcement environment, further complicated by the complex and often violent political dimensions, little benefit is derived from comprehensive laws and policies unless there is ability within the system to satisfy demand of both users and the environment as well as regulate effectively regulate with proper monitoring and legal intervention where necessary. The monitoring capacity of GSMB is very weak with limited few field staff, (sometimes only two engineers available in a whole Province) and is wholly inadequate to contain well organised illicit mining operations. The politically powerful pressure groups can rein in interventions from the Police and local administration.

The damage to roads, bridges, water supply intakes and culverts due to collapsed banks and heavy vehicular traffic, the collateral damage of RSM is another problem. The total loss to national infrastructure due to illicit mining has never been comprehensively assessed. A conservative estimate of replacing an

endangered bridge would be SL Rs 600 million. Replacement of a water supply intake may cost SL Rs 20 million. If prompt activity is not taken, the debt load for future generations in Sri Lanka will be dramatically increased due to current political and bureaucratic apathy.

Within the months of January to April 2008 the price of rice has nearly doubled in Sri Lanka, as well as in other Asian countries. No estimate is available of the extent of rice paddy land put out of commission or decreased harvests due to the impacts of RSM. At the current moment, the country can ill afford a further decrease of levels of food security.

Thus given the extent of damage caused by RSM, it would not be incorrect to call it a second tsunami in terms of destruction for Sri Lanka which calls for a major concerted response by government and non governmental agencies. Often environmentalists and advocacy campaigns react to events rather than anticipate and mobilize civil society and communities to take precautionary measures – in the case of illicit river sand mining; it was seen by the RSM activists that this process needed to be reversed.

#### 4. Policy and legal initiatives

The environmental impacts of the escalation of river sand mining and the introduction of mechanized mining (especially common on the neighbouring Maha Oya) has been raised at various Sri Lankan fora for at least 5 years. Several localized initiatives were taken to curb excessive mining which damaged the environment and related corruption. Not much positive impacts were noted in the long term.

RSM has led to several high profile instances of legal activism. In 2004 following a Fundamental Rights application of a sand miner, petitioning the courts for the right to exercise his livelihood, the Supreme Court taking judicial notice of the social and environmental problems caused by the then largely unregulated mining of sand from riverbeds and river banks, suspended all sand mining licenses on Ma Oya pending a study of the impacts, and called upon a well known environmental protection organization (Environmental Foundation Ltd) to assist Court. The case is still going on, with periodic hearings taking the form of an accounting by the relevant sectors (GSMB, the Police, North-Western Provincial Authority, and Environmental Foundation Ltd) as to how the issues of enforcement of controls and the rehabilitation of the river are being dealt with.

While a draft National Policy on sand was prepared by the Ministry of Environment and Natural Resources in March 2005 articulating the proposed state policy principles and institutional arrangements that will be the basis of control and regulation and published for comment, it is not made clear how the issue of supply and demand will be satisfied. Moreover the draft policy is limited

in that it only refers to sand for construction purposes and does not emphasize preservation of ecosystems and biodiversity needs.

It is not the purpose of this paper to discuss legal definitions of whether or not the rivers and water ways of Sri Lanka can be defined as a common property resource. It suffices that the riverside community perceives that the river is a common property resource where the rights of use are communally shared and ownership is not private but communal. Even when the adjoining lands are owned by private owners the river itself is state property, the reservation of which (often undefined) is owned by the state technically under the supervision of the district administration. The plethora of related agencies and laws substantially leads to the current situation of fragmented responsibility and lack of regulation leading to environmental abuse.

#### 5) Organizational Background of the networking initiative

The RSM activists coalition was built up into a loosely connected alliance of community groups in affected areas and CSO activists through contacts made in water awareness programs including but not exclusively, NetWwater's Gender and Water Dialogue ( Kantha Jala Hamuwa) and childrens' water awareness programs( Sisu Jala Hamuwa) .

The highest level of community activism prior to the formation of the CSO alliance has been observed in Deduru Oya in North Western Province. Local communities along Deduru Oya (DO) had mobilized under the aegis of an umbrella organization, Deduru Oya Surakeeme Vyaparaya ( Save Deduru Oya Movement DSV ) led by the Chief Incumbent monk of an ancient Buddhist temple (Devagiri Raja Maha Viharaya dates back to 3<sup>rd</sup> century BC) in Bingiriya. Their campaign had first been one of appealing to the various political and administrative authorities (the North Western Province is the only Province which has its independent Environmental Authority). All river sand mining groups, here and elsewhere are seen to have access to political patronage which sponsor local "strongmen" who actually do the mining. After some time, the DO campaign turned aggressive with the activists physically blocking the roads for three months; windscreens were broken and nail boards used to puncture the tyres.

In this early phase of agitation, no physical violence was offered on either side but sand mining was brought to a halt in DO. Thus livelihoods of sand miners were temporarily lost but the temple however supported the sustenance of the blockage during this time by distributing rice to both the families of activists and the sand miners who would have else been indigent .

As has been observed in earlier such situations such as Thuruwila campaign, women are seen as front runners in physical protests. In these early days of the DO agitation, women played an active role in maintaining roadblocks, effectively

acting as human shields. This is partly due to the fact that activism opponents and the Police are generally seen as wary of attacking women demonstrators. It may also be that women are perceived as raising a legitimate voice related to water security as they are badly affected by loss of access to drinking water. But as seen in the Thuruwila case, when activism proceeds to negotiation, consultation with legislators and administrators and in judicial activism they are seen to play a less dominant role and men take over the lead. This is an interesting issue for further indepth observation and study.

In early 2006 it was felt that a change of strategy was indicated and efforts were made by local DO community, to seek contact with CSO support outside the area to launch an national awareness program. Their objective was to seek support to highlight the issue, hitherto seen as a local problem, now to be profiled at national level, as a national and not merely a provincial problem, while seeking a moratorium on sand mining to allow regeneration of the river.

The building up of an advocacy coalition was not seen as a target at the first point of intervention. The objectives of the DO activists were to find an external organization that would support their efforts in

1. Nationally highlighting damage caused by river sand mining especially in North Western Province to water security, rural livelihoods and ecosystems
2. Raising awareness on resultant loss of national investments and impact on national debt due to RSM
3. Raising consciousness leading to a change of policy
4. Emphasizing the need for development of alternate sources of sands and modes of construction
5. Seeking a moratorium on sand mining to allow regeneration of the river.

Collaboration among the CSOs led to a joint mapping out of an appropriate strategy. Eventually the chosen method to highlight the issue was the organization of a national level media blitz highlighting the issue of Deduru Oya which had by then suffered major damage. A media tour involving members of the print and visual media was carried out on the 28<sup>th</sup> February 2006 to cover the most damaged hotspots in Deduru Oya. The involvement of all prestigious media organizations and the ensuing print and visual coverage made this an unprecedented advocacy event even in the eyes of the participant media personnel. NetWwater and its partner the Centre for Environmental Justice (CEJ) coordinated this activity.

This activity was planned to take place before the dry season (high activity season for RSM) starts up, to move away from the hitherto reactive response of



the media and the authorities into a proactive response. The media tour and resultant publicity was intended to redflag the issue and serve as an early warning for all decisionmakers before the onset of the dry season.

This advocacy effort proved to be extremely successful with a spate of media reports eliciting responses from political decisionmakers including the Minister of Environment and the President himself. It also sensitized the media who continue thereafter to give more prominence to RSM issues. Reportage was enhanced; this effort raised national awareness regarding the issue and opened out the dialogue to a national level from being solely a provincial issue. To that level, the activists were able to reach their objective.

Another CSO, Sri Lanka Water Partnership (an affiliate of Global Water Partnership) conducted a National Sand and Clay Mining Dialogue presenting the need to promote use of alternate sands for construction, coordinated by NetWwater with the assistance of Capnet Lanka on the 24<sup>th</sup> April 2006. Several presentations on manufacture of alternate sands were held highlighting the fact that effort needed the attention of players outside the traditional water sector. Sand manufactured from crushed quartzite and offshore mined sea sand was seen as two possible solutions. The need to sensitize engineers and the building trade to develop new construction methods too was highlighted.

As a result the Minister of Science and Technology agreed to set up a Ministerial Task Force for technological alternatives. But there has been no followup on this due to limited pressure from the activists, prevailing political problems and the escalation of civil conflict in the North taking precedence over environmental issues. The DSV group also gained sufficient public profile to be invited to present their views to the Minister of Environment and the Chairman Geological Survey and Mines Bureau (GSMB) who promised redress especially on the issue of forged mining permits in Deduru Oya. But again little action is seen to have been taken to curb this issue though a permit printed on security paper was proposed to curb prevalence of illicit mining permits.

NetWwater which catalyzed setting up of the CSO linkages received requests from other affected areas to facilitate a similar supportive action. With the support of SLWP and Capnet Lanka (local affiliate of Capnet), a linkage was formed with the University of Ruhuna to set up a Southern Province RSM Action Committee. An initial meeting was called on December 2006 for a high profile meeting which had political support (with the attendance of the Provincial Governor), members of the media as well as Police. A Southern Province Action Committee was formed with representation from all sectors including a representative of sand miners and anchored in the Dept of Agricultural Science, University of Ruhuna in the Southern province. A university lecturer was appointed as chair. This group has access to resources of the university and had social acceptance. They have therefore been able to continue with awareness building activities including a recent production of a video documentary for the neighbouring Nilwala River.

A positive outcome of the awareness building of the SP Action Committee was that a request was received from the Southern Province Police Department to conduct an awareness program on the impacts of river sand mining for Police Station heads in the entire province. In interaction with all local communities the relative inaction or alleged corruption of the Police has highlighted as a major cause for the proliferation of illicit RSM. The Police program however highlighted political interference as the major constraint. It was interestingly revealed in the Police program that a handcranked machine had been invented by sand miners to increase output while circumventing the ban on mechanized mining.

The advocacy alliance came to the conclusion that provincial efforts alone were insufficient to create an impact on national policy makers. Besides, NetWwater and SLWP were requested for support from the different local river based initiatives to engage in a broad national campaign, building on earlier efforts to question the present practice of unregulated and illegal RSM. During a meeting in January 2007 it was collectively agreed to join forces, and a national network of RSM affected people be formed.

This meeting created synergy with all groups agreeing that their local efforts were insufficient to create an impact on policy makers. It was collectively agreed that affected groups would collaborate in formation of a national network of RSM affected people; efforts were to be made to communicate with other affected groups in Maha Oya, Mahaweli Ganga, Kelani Ganga and Walawe ganga. A Maha Oya group was eventually mobilized and became very active. Since this group had access to the web (unlike the DSV which has no access to computers at all) and an internet based newspaper they were able to communicate issues related to Deduru Oya as well.

The advocacy group tried to build interlinkages between rivers in order to build critical mass. DSV called a meeting in Bingiriya bringing together affected communities of mid and lower Deduru Oya (from Chilaw to Nikeweratiya). There were cross visits with the Southern Province Action Group and an "observer" group from Polgahawela (mid Maha Oya) visiting Lower Maha oya and Deduru Oya further strengthening the linkage of affected communities. This was intended to bring together all communities mobilized around the issue thereby building critical mass.

The following suggestions leading to a People's Sand Charter were made at the resultant Bingiriya Joint Rivers meeting in February 2007.

- 1) To make an Environmental Protection Force to take preventive measures against river bank erosion such as planting of bamboo trees.
- 2) To take measures to define and protect river reservation areas.
- 3) Support coordination between national organizations which advocate and prepare acts & laws related to water resources in Sri Lanka.

- 4) To present observations leading to a Peoples' Sand Mining Charter and hold a conference on the draft National Sand policy.
- 5) Promote awareness and usage of alternative sands.
- 6) Request definition of quality standards for sea sand and revisions in quality standards for construction industry.
- 7) Start awareness programs for school children (Sisu Jala Hamuwa) in affected areas.

The different river base groups carried out various activities based localized needs. The Polgahawela group too had requested facilitation for an awareness meeting but this did not materialise. The Deduru Oya group decided to conduct a workshop for further strengthening the lower and mid Deduru Oya activists to formalise a Deduru Oya Area Water Partnership affiliated to the SLWP. The Maha Oya group requested assistance to build awareness and mobilize communities through a community leaders meeting and a Sisu Jala Hamuwa on World Water Day 2007.

This activity took the form of a meeting held under the auspices of the Central Environment Authority (CEA) in Colombo. One stated objective of this meeting was to present the Peoples' Charter for Sand mining and elicit comments on the draft Sand National Policy on Sand as a Resource for the Construction Industry presented by the Ministry of Environment and Natural Resources in 2005. The DSV group has taken the lead in this issue. It was noted in particular that that the current draft policy promoted by the GSMB confines itself to construction needs and does not mention sand as a necessary resource for sustenance of agricultural livelihoods and ecosystems.

Activities have continued slowly but steadily since then; there have been long gaps and problems in keeping up the momentum as the activists have been affected by violence; the minimal funding available, the fact that the alliance is made up of only volunteers and the current escalation of hostilities in the North continue to be barriers. Nevertheless ongoing programs planned for Deduru Oya in May July 2008 include an awareness program for Police, teambuilding activities for local CBOs and environmental rights awareness programs for citizens while other rivers too attempt to keep up the pace of the advocacy program.

#### 6) Judicial activism

Public interest litigation, the favoured weapon of Sri Lankan environmental activists was also undertaken by two environmental groups The Green Movement of Sri Lanka (GMSL) and Centre for Environmental Justice (CEJ) with stakeholders of the lower Deduru Oya served to raise the issue. One such case cited loss of water security and named police officers for dereliction of duty. This had a salutary effect on police vigilance increasing the number of arrests for illegal mining and transportation of sand for a short while.

The ongoing Deduru Oya case( S.C.F.R. No.226/06) as it is popularly known was filed by leaders of three community based organizations in 2006, who were concerned that the issue of virtually unregulated sand mining from a river bed in the North-Western part of the country that had not only destabilized the river banks, but had also caused the level of the water to drop to such an extent that the water supply scheme for Chilaw, the main town of the area was threatened. The allegation of the petitioners was that there was a widespread flouting of the law in which the miscreants were backed by local politicians; there were allegations against the Police for turning a blind eye. The Court, having granted an injunction against any further sand mining from the river in question, has assumed the role of monitor, whereby the Police and officers of the mining regulatory authority are required to report to Court every 2 – 3 months. The petitioners are allowed to mention any shortcomings and the respondents are required to state what remedial action they have taken. As a result the petitioners have now been able to raise funds and embark on a project to rehabilitate the river banks. Amongst the project's workforce are several poor persons of the area who had previously had to make a living doing the illegal mining for the "sand mafia".

This highlights two interesting developments:

1. The willingness of local communities, with capable community leadership, to work together towards protection of water resources.
2. The willingness of the Supreme Court to play a monitoring role where all other agencies of the State have failed.

The input of CSO activists' (mainly Navodaya and Mihisara organisations) served to raise awareness of local communities on issues related to the court case. The local communities were not aware of access to litigation, court procedure and access the Supreme Court through Fundamental Rights applications; the CSOs and judicial activists educated the affected communities on the issues related to the court case and absorbed the legal costs of the case.

Though the administrative cost of filing a fundamental rights case in the Supreme Court is relatively small, lawyers' fees, preparation of court briefs and obtaining copies of each day's proceedings substantially add to the costs. This intervention had a positive impact on the local level activism.

However, unlawful sand mining activities continued, together with a high level of general violence and intimidation against the petitioners and others who were trying to rehabilitate the river banks. As a result the Supreme Court adopted a policy of calling the case in open court at regular intervals to monitor the situation and in particular monitor the conduct of the Police officers of the area. Nevertheless illicit sand miners circumvent the RSM bans on RSM on Deduru Oya by shifting to nearby tributaries such as Kolamuna Oya.

## 7 Role of media as a tool for RSM advocacy

Following the success of the Deduru Oya media tour in 2006, media interventions were seen by the advocacy coalition activists as a key weapon for promoting their cause. As such NetWwater with support of Sri Lanka Water Partnership carried out an one year media scan of all river sand mining issues reportage in 5 leading Sinhala language newspapers (Lanka Deepa, Divaina , Dinamina Silumina and Lakkbima ) and presented at the it at the National Dialogue on river Sand Mining in 2007 to raise awareness regarding the extent of the damage. Though very limited in its scope, the media scan was revealing.

Though Deduru Oya, Ma Oya, Nilwala Ganga and Kelani Ganga were the focus of attention of the advocacy coalition, it is seen that there is hardly any river or water body in Sri Lanka which is not affected by illicit RSM. Throughout the country there were scattered and muted protests of groups whose water security and livelihoods was being threatened by uncontrolled RSM. But there were very few instances where a strong collective community voice and collective action against RSM was observed other than in Deduru Oya.

The RSM reportage was as follows -

Table 1 RSM Reportage

Month	No of news items
January	07
February	07
March	11
April	12
May	06
June	07
July	13
August	06
September	11
October	05
November	10
December	15

The placement of the news items is indicative of the importance given to the issue. Usually the RSM news items are found tucked away in the Provincial news section or middle pages. Interestingly, the issue rarely made the front page or even the high profile third page.

The rivers and water ways mentioned in the reportage listed in the media scan for 2006 are 23 in number. They are Maha Oya, Deduru Oya, Kala oya, Mahaweli Ganga, Mee oya, Gin oya, Ma oya, Mawath oya, Maguru ganga, Galmal oya Kalu ganga, Malawe oya, Nilwala Ganga, Kimbulwana Oya, Kirindi Oya, Minipe Yodaela, Galewela Rakshita Ela, Talawe Ela , Gin Ganga, Kirindiwella Ganga, Polathu Ganga, Halwatta oya and Sengal Oya. The media scan was very useful for the advocacy coalition as it enables the RSM issue to be profiled as a national and not limited interest provincial issue.

#### 8) Bottlenecks, pitfalls and possible solutions

As is seen from the above, the damage to rivers and river centred livelihoods by RSM was not without reaction from local communities. But the reaction to organized illicit mining was usually focused on legal means, awareness raising and judicial activism whereas the RSM proponents take the path of direct intimidation and violence. In the current scenario of conflict related violence and consequent instability, these methods are seen to become more effective; therefore 2007 onwards, high levels of RSM activism have become very difficult to sustain.

The aim of the advocacy coalition was to create a critical mass needed to speed up various processes and receive commitments from the government and the construction sector to invest in research for alternatives which will decrease the use of river sand in construction. However, the escalation of the war situation, steep increases in the cost of living, the constant threat of LTTE suicide bombers and the resultant erosion of civil life have been a hindrance to operationalizing the planned activities in 2007. The attention on RSM issues is very low; the current political situation is not conducive at all for activism with meetings and travel minimized by many due to the fear of bombs and roadblocks.

With the pressure of the activists minimized and the police more concerned with national security issues, all rivers especially Deduru Oya has seen a recent escalation of illicit RSM which the authorities have done very little to curb. Though it is hoped that the planned mobilization programs can be carried out without a break, currently RSM activists are experiencing severe setback due to high levels of physical violence and intimidation. Continuing violence against civil society resonates in the ongoing acts of violence against media and reflects the current weakness of civil society. Impacts of current civil disturbances have been most negative in the case of RSM activism.

Against the backdrop of the ongoing defiant rejection of communities agitating against the Special Economic Zones( SEZ) in India, the preferred modes of collective action in Sri Lanka are as yet non violent and leaning towards judicial activism . Sri Lanka has not yet seen a RSM related Nandigram like situation where activists actually suffer casualties in open confrontations. But the sand

mafia is successfully sidelining the activists through selective violence while effective enforcement which must go in tandem with provision of alternate livelihoods of the affected poverty groups and resuscitation of the degraded lands is missing.

Nevertheless ongoing programs for Deduru Oya for 2008 include continued judicial activism, awareness programs for Police, media programs, teambuilding activities for local CBOs and environmental rights awareness programs for citizens. Suspicions among CSOs and perhaps fears of competition for funding proved to be barriers in strengthening the network. Ideological factors are also a divisive factor in limiting the power of the advocacy coalition. Against this backdrop, the politically savvy sand monopolists and their linkages with an aggressive "sand mafia" further highlights the limitations of community activists by their singleminded strength.

### 9. Conclusion

RSM in Sri Lanka has not yet been viewed from a serious environmental researcher or development perspective as an erosion of a critical common property resource, the rivers and water ways of Sri Lanka. Development of alternate construction technology and manufacture alternate sands for construction is long overdue. Benefits of reducing conflict in RSM affected areas and improving efficiency in use of natural resources need be recognized. Long term RSM related impacts including lowered levels of food security, rural out-migration and reduced agricultural efficiency need to be studied further from a macro perspective. While an advocacy alliance can highlight the need, the state has eventually to undertake remedial action.

Uncontrolled illicit RSM creates a level of damage to rivers that are ecologically irreversible in the long run; an urgent and sustainable solution is now needed for the affected rivers and communities in Sri Lanka. The worst affected rivers such as Deduru Oya is in critical need of a moratorium on RSM in order to regenerate even minimally. Though the mining of shore sand is altogether prohibited in the draft national sand policy, recent media reports indicate that moves are underway to mine off shore sand with foreign collaboration. While this may be provide a solution to contain the escalation of damage to rivers caused by RSM, the problems of declining water security, lost national investment, diminished intergenerational equity, accelerated social disharmony and vanished livelihoods will remain.

## References

Athukorala, Kusum *Water Transfers out of Agriculture :towards a Win Win Solution ? A case study of Thuruwila* in Integrated Water Resources Management Global Theory, Emerging Practice and Local Needs, SaciWATERs Water in South Asia Volume 1 Sage India 2006

Athukorala Kusum and Navaratne Champa *Valapena Rideenadi : Welī Mankollaya Nisa Vanasena Lankave Jala Sampatha* ( Sinhala ) 2008 in print

Geological Survey and Mines Bureau of Sri Lanka - Draft National Policy on Sand as a Resource for the Construction Industry 2005

Joy KJ et al - Water Conflicts in India: a Million Revolts in the Making 2008

Sri Lanka Water Partnership - Report on National sand and clay mining dialogue, mimeo 2007



### Annexure 1 Map of RSM affected rivers



## Annexure 2 Media Report 1

### ***Sri Lanka running out of sand - Pilot project to promote use of sea sand in building construction***

Sri Lanka's building industry may face a shortage of sand for the construction industry, a senior government official warned last week.

The construction industry may face a serious shortage of sand if the over-exploitation of river sand is not stopped and sea sand from offshore sites is not promoted as a viable alternative, said Janapriya de Silva, chairman of the Geological Survey and Mines Bureau.

"We could run short of sand in another two years' time," he declared.

Sand mining in river beds was doing serious damage to the environment, weakening river banks and the foundations of bridges, and causing an incursion of seawater upstream.

The problem became so severe that, with the onset of the drought, the water pumping station at Avissawella was closed down recently because of an incursion of seawater upriver.

"The entire construction industry could come to a halt unless alternatives are given," de Silva warned.

Demand for sand is forecast to rise with a construction boom expected with the revival of the economy and the reconstruction of the north and east following the truce between the government and the Tamil Tigers.

Sand would be required in large quantities for the big highway and port projects in the pipeline.

The bureau, along with other state agencies, plan to launch a pilot project with a stockpile of offshore sand mined and kept for use by the Road Development Authority at Muthurajawela. The project was proposed by the Coast Conservation Department.

"Our aim is to introduce offshore sea sand to the construction industry as a viable alternative to river sand," de Silva said. "Then, hopefully, the focus on river sand would diminish. We want to promote the use of sea sand among the biggest users such as construction firms.

"What we want to stop is the over-exploitation of rivers," he added. "We must strike a balance. Otherwise, the country is going to face a crisis."

Fears among users that sea sand was not suitable for construction purposes because of a high salt content were unwarranted, said Dr. N.P. Wijayananda, director of the Geological Survey and Mines Bureau.

"Studies by the Moratuwa University show that the salt content in dredged sea sand is 0.8 percent, within the acceptable limit of less than one percent," he said. "So it is acceptable for construction purposes."

The bureau has demarcated sand deposits off the southwest coast between Panadura and Kalpitiya, he said.

The bureau allows dredging at selected sites 20 kilometres offshore in sand deposits at a water depth of over 15 metres.

"We've identified the deposits and already given licences for mining sea sand under very strict conditions," Dr. Wijayananda said. "Otherwise, it can increase erosion of the coastline."

The mining season is between December and May.

The stockpile at Muthurajawela, mined from one site north of Colombo, has been used for landfill purposes for Colombo Port's Jaye Container Terminal and the modernisation of the Queen Elizabeth Quay that is now underway. It is also used for the Colombo-Katunayake highway project.

De Silva said that offshore sand mining was a big industry in the industrialised West and that sea sand was used in Europe for building purposes.

Sand used in the civil engineering construction industry and for road building in the island now comes from rivers and mining is done on licences issued by the bureau. No licences are issued for mechanised mining.

Large deposits of sand with the properties required for building purposes are found in the middle and lower reaches of the Kelani River, Kalu Ganga, Maha Oya and Deduru Oya, according to the Geological Survey and Mines Bureau.

Sand along riverbanks is mined using manual labour and buckets and wicker baskets while deeper water sand is mined by divers who load it on to barges.

Surveys by the bureau have revealed that sand is mined mainly by businessmen most of whom own land by the rivers.

De Silva said river sand mining was becoming a social issue, much like the coral mining problem.

"River sand mining is difficult to stop despite the harm caused," he said. "A sizeable section of the poor could lose their livelihood. But it is better to give a warning in time so that they could find alternative employment."

## **Annexure 2 Media report 2**

***Ignoring court ban order –  
Unauthorised sand mining continues at Deduru Oya***

(The Island 4<sup>th</sup> September 2007)

A large scale unauthorised sand mining is still carried on in the Deduru Oya Valley area under the Chilaw and Bingiriya Divisional Secretariat areas.

Mining and transport of sand have already been banned on a court order

The residents living in the Deduru river valley have lodged their protests continuously to the relevant authorities to stop the wanton destruction and pollution of the environment which had been carried on for a long time.

The illegal sand mining had been going on unabated in 'Sathkorale' area of the North Western Province, causing great harm to the day to day living of the people.

The crime is still being committed before the eyes of the law enforcement agencies of the government, aided and abetted by some henchmen of unscrupulous politicians. The residents complain that several politicians were involved in the activity even after the ban imposed by a court order.

The farmers living close to the river said their valuable land had already been washed away because of the unplanned and irresponsible sand mining. There is a threat of sea water, too, flowing up the river and affect contents of the valley. This is mainly due to digging deep for sand.

Several farmers have abandoned their cultivating plots due to lack of water. They have appealed to President Mahinda Rajapaksa to take steps to protect the area by declaring it a high security zone.