



# RUSH AND REED CONSERVATION AND DIVERSIFICATION PROGRAM

Sri Lanka



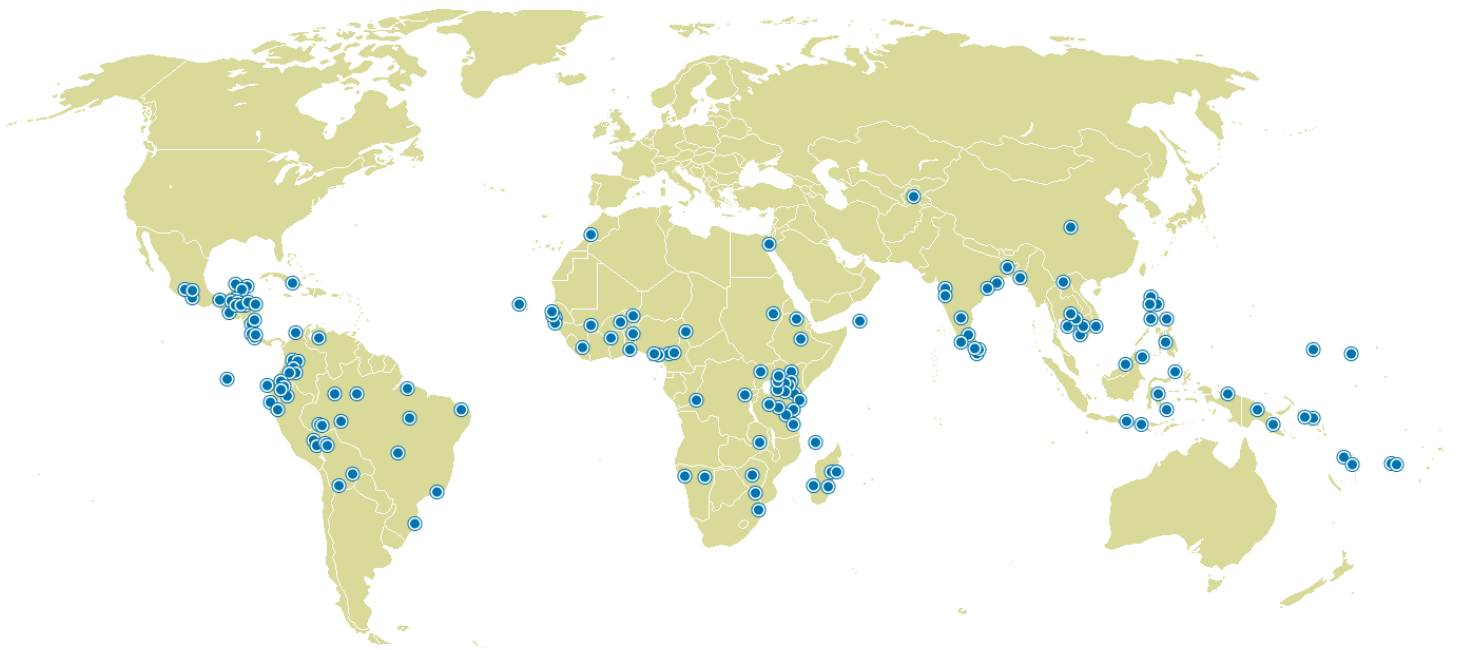
## Equator Initiative Case Studies

Local sustainable development solutions for people, nature, and resilient communities

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Local and indigenous communities across the world are advancing innovative sustainable development solutions that work for people and for nature. Few publications or case studies tell the full story of how such initiatives evolve, the breadth of their impacts, or how they change over time. Fewer still have undertaken to tell these stories with community practitioners themselves guiding the narrative.

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## PROJECT SUMMARY

The Committee for People's Rights (Podujana Himikam Kamituwa), a local NGO based in Kalutara District, southwestern Sri Lanka, has pioneered the reintroduction of rush and reed species to household paddy fields for processing into value-added handicraft products.

The Rush and Reed Conservation and Diversification Program aims to ensure the sustainable use of natural resources, to protect indigenous and traditional knowledge associated with traditional handicrafts, to conserve biodiversity and wetland ecosystems through a participatory approach, and to provide opportunities to the local population for alternative income-generation avenues. Since 1999, the initiative has provided training for more than 2,500 households in 11 districts in Sri Lanka; those involved in the program have seen average monthly household incomes double thanks to improved production techniques and marketing support.

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## KEY FACTS

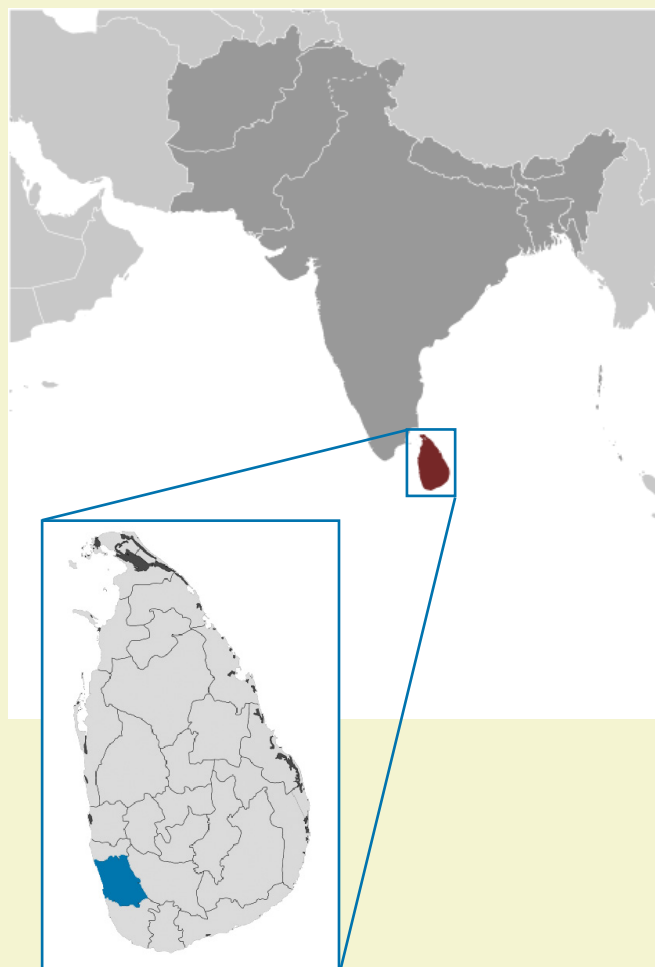
EQUATOR PRIZE WINNER: 2004

FOUNDED: 1999

LOCATION: Horana, Kalutara District

BENEFICIARIES: 800 people work directly with the program

BIODIVERSITY: Rush and reed plants, wetlands





# Background and Context



Rush and reed plant species were once abundant in the wetlands of Sri Lanka, where rural life is based on rice cultivation. Rice paddy fields typically contained an area where rush and reeds grew. This natural formation was traditionally allowed to remain because it provided farmers with an additional resource to create household necessities such as bags, mats, and bins from rushes and reeds. With the influx of cheap, mass-produced products into local markets in the 1980s, however, people became less interested and engaged in producing household items. So too, with the introduction of Green Revolution technologies and the advent of chemical inputs, the natural cycles for rush and reed growth were violently disrupted. Consequently, rush and reed habitats became neglected or were abandoned, and little to no attention was paid towards biodiversity conservation and the protection of these invaluable ecosystems. Among the negative effects of this was a decrease in soil fertility. Simultaneously, rural populations that were previously reliant on rush and reed craft production lost their primary income streams and became increasingly economically marginalized. In 1999, in response to these challenges, the Rush and Reed Conservation and Diversification Program was born.

## *Aims and objectives of the program*

The program was introduced by a local Sri Lanka community-based organisation, *Podujana Himikam Kamituwa* (Committee for People's Rights - CPR), based in Horana, Kalutara District, southwestern Sri Lanka. The programme has the following objectives: i) to ensure the sustainable use of natural resources; ii) to protect indigenous and traditional knowledge associated with traditional rush and reed crafts; iii) to conserve biodiversity and wetland ecosystems through a participatory approach; and iv) to provide opportunities to the local population for alternative income-generating avenues, with a focus on those most economically-marginalized sectors of society.

CPR is focused on the rights and social conditions of the communities in their target project areas. Through scoping reviews, the organ-

isation was able to establish that the majority of the local population was dependent on agriculture for their livelihoods and incomes, and that alternative livelihood options and income diversification strategies were needed. The group also established that rush and reed plants – as well as the ecosystems that house them – were being neglected and slowly degraded. So too, the number of traditional experts in rush and reed craft making was diminishing. CPR concluded that revitalization of the rush and reed industry would help to solve several crucial problems, including most clearly the conservation of biodiversity and threatened wetlands, improvement of local income levels, and the protection of traditional knowledge.





Key objectives of this work have included:

- making paddy cultivation attractive enough for farmers to begin working fields which had been lying fallow for many years;
- reintroducing the self-sustaining “micro-land unit” typical to traditional farming systems, which consists of less than one acre composed of a paddy field, a reed bed, and a home garden;
- adopting chemical-free agricultural practices and the reintroduction of native varieties of rice;
- diversifying reed beds in order to ensure their sustainability and reverse the trend of species depletion;
- promoting gender equality in ways that enhance the traditional values of rural communities;
- ensuring food security in the community;
- developing and strengthening the rush and reed based cottage industry as a poverty alleviation strategy;
- conserving biodiversity by focusing on the use of plant species facing extinction;
- increasing public awareness of causes of environmental degra-

ation and biodiversity loss;

- and introducing school education programs to prepare the next generation to face the problems of the future.

The Committee for People’s Rights thus evolved in 1999 as a community-based organization dedicated to working with grassroots and local groups. In the early stages of the initiative, CPR worked closely with rural communities to establish a base of knowledge on the experience of craft making and the traditions of the people who had worked in this field. The objectives and activities of CPR were established through a consultative process that included traditional knowledge holders and local community members. While the vision of the program has not changed substantially since its inception, activities dedicated to sustainable livelihoods have been diversified and enhanced to include such areas as organic farming and eco-agriculture. Training and support in the production of handicrafts from rush and reed species has reached a large target population throughout Sri Lanka after its initial success in Kalutara District.





# Key Activities and Innovations



The Rush and Reed Conservation and Diversification Program consists of three stages:

## *Pilot stage (1999-2000)*

The first phase, from 1999-2000, was focused on awareness creation among potential beneficiaries within a small target population in the rural areas surrounding Horana. Initially eighteen self-help groups, each comprising of five rural community members, were supplied with rhizomes of select rush and reed species, given training in appropriate agricultural practices, and trained to produce practical household items with their harvests. These trainings were particularly targeted at youth members, with the result that young community members have increasingly become more engaged in the craft weaving industry as an alternative to seeking factory work.

Local cultivators were supported to make products that met a demand in modern markets, comprising both traditional crafts and value-added goods with higher market values. Around ten newly designed value-added products and fifteen more traditional products were identified early on for manufacture under the aegis of the project. Traditional craft making was previously a cottage industry, constituted primarily by hand-woven processes that did not use machinery of any kind. Part of the value-added processing has been the introduction by CPR of simple equipment and machinery for craft production, such as a modified handloom weaving machine and a flattening machine.

## *Second phase (2001-2003)*

The second phase of the project was carried out with 80 participants, following the same process. In this stage, special emphasis was placed on disappearing or threatened species of rush and reeds. This was also the stage when marketing strategies were first explored. Following a market survey, a training centre was constructed in Horana to offer a sales outlet, a workshop forum, and a show room for



manufactured products. Marketing of rush and reed products has been a key area of activity, and a critical contributing factor to the sustainability and longevity of the program. Products are sold at a range of environmental exhibitions and events, craft exhibits, and trade fairs. Government agencies and non-governmental organization networks have been enlisted to promote the marketing efforts and to place orders themselves for special functions, seminars, and workshops. Inroads have also been made into the tourism sector, where rush and reed products have a market advantage in being eco-friendly products. Both the National Design Centre and National Crafts Council were critical in identifying the different market niches for both the newly designed products and the traditional products.

## *Third phase (2003-2012)*

In the current project stage, activities from the first two stages were carried out with an additional focus on the micro-land unit approach, which consisted of dividing farming areas into paddy fields, reed beds, and home gardens. A group of twenty farmers were se-

lected to pilot this approach and trained in organic micro-farming techniques such as wormiculture, organic fertilizers and composting. Training in leadership, human rights, and resource management was also offered to build the capacities of participants. Within the reed beds, other plants were introduced to enhance biodiversity, including crops that supported food security and medicinal plants. The program's approach was expanded to Sri Lanka's Southern Province after the 2004 tsunami, and to the Northern, Eastern and North Central Provinces during the country's post-conflict period. A successful training programme on rush and reed weaving was also held in Bangalore, India.

### *Key project focus areas*

One of the key activities of CPR has been in data collection and awareness-raising. A focus on data collection was deemed necessary to identify rush and reed species that could effectively be used for the production of crafts, as well as to identify members of the local community with substantial knowledge and experience of rush and reed craft making. Awareness-raising has been used to foster a positive attitude amongst the local population towards traditional knowledge, biodiversity, and the imperative of protecting both.

Other activities focus on the conservation of local ecosystems and natural resources. Wetland ecosystems are capable of supplying multiple varieties of raw material suitable for weaving, including different species of grasses, rushes, reeds, palms, Pandanus, creepers, rattan and bamboo, as well as tree bark, plant fiber, and species used for natural dyes. The program has reintroduced over 60 such species of plants and trees used as raw material for weaving, and these have been identified and catalogued, with plans put in place to protect these areas. This was again complemented by awareness-raising programs on the economic value and importance of conserving the wetlands. Rush and reed micro-land units (a traditional system known as *pankotuwa*) were established in the project areas to ensure a regular, healthy and sustainable supply of the raw materials needed for craft activities. Nurseries were also established to provide plants for cultivation. Special attention was given to ensuring the use of organic fertilizers and traditional, low-impact farming methods, such as in the production and use of natural dyes for craft-making.

Since 1999, CPR has provided craft weaving training for more than 2,500 people. Program trainers have carried out trainings in India, overcoming language barriers. A training centre has been established by CPR which is equipped with the facilities needed to conduct residential courses.

### *Innovations*

One significant innovation of CPR has been identifying and reintroducing previously underused rush and reed species. A scoping

review was conducted early in the project to identify species that were both threatened as well as underused in the craft industry. As in other industries, some plant species are more useful than others. The more useful of the marginalized rush and reed species were successfully reintroduced by CPR, with the number of individuals using these species increasing from 25-30 individuals at the beginning of the project to 2,500 currently.

Another project innovation has been the combination of traditional knowledge with modern market knowledge and considerations. CPR has successfully introduced new and relevant products, but based on a sustainable practice grounded in traditional knowledge. Among the new products that have been introduced are handbags, office bags, purses, slippers and shoes, conference files and folders, ceiling sheets and panels, and decorative and practical utensils for hotels – products that were not traditionally produced using rushes and reeds. The production of more traditional products such as mats has continued to ensure the survival of traditional knowledge and techniques. In 2003, a CPR member received the National Design Fair Award for “divi adiya”, a mat based on a traditional design.

The final innovation has been the CPR marketing approach, which has been particularly successful in promoting its crafts under the slogan of “eco-friendly alternative products”. The market for these products was developed in a relatively short period of time, both for newly designed crafts as well as the more traditional items. Production has been catalyzed by a growing demand for these products, which ultimately benefits an otherwise economically marginalized population. This approach has enabled CPR to supply the niche market of eco-friendly products for hotels and conferences.

### *Future aims*

The initiative has ambitious plans to expand the reach and impact of its program in the coming years. These include the development of school learning programs, taking advantage of the adoption of Environmental Studies as a part of the national school curriculum in Sri Lanka. This offers CPR the chance to play a leading role in enhancing youth awareness of biodiversity conservation through formal education; the initiative plans to establish a permanent unit at Gamagedara to ensure the success of this goal.

The program aims to further improve awareness of the linkages between biodiversity and human wellbeing through three initiatives. A new research unit will be established to carry out scientific research on issues such as biodiversity and pollution control. A museum and conservatory are planned to house traditional reed products and designs and as a basis for plant propagation and conservation of endangered species. And a library will be established to hold documents, books, and other print, audio and visual media concerning the documentation of rush and reed species.



# Impacts



## BIODIVERSITY IMPACTS

The primary biodiversity impacts of the CPR project have been in the conservation and sustainable use of local wetlands. As the craft makers need to ensure a continuous supply of the raw materials needed for their products, the community is committed to the conservation and sustainable harvesting of rush and reed plants, which in turn has larger biodiversity ecosystem benefits. Conservation of rush and reed plants, and the wetlands more generally, has been

accomplished through awareness-raising and direct restoration of small family plots of fallow paddy land. The wetlands have been conserved, restored and enriched as a result of CPR activities. A number of wetland ecosystems that were zoned for alternative development have been saved, as have the endemic species of flora and fauna that populate them. Some rarer species of rush and reed have also been conserved through their reintroduction and sustainable cultivation in demarcated areas.

The area of wetlands that has so far been conserved through the project is roughly 60 acres. Around 15 acres of this area contains the most widely used rush species (*gallehe*). A number of other rush and reed species (including *Cyperus spp*) that were threatened have been reintroduced into these wetlands and now contribute to the genetic diversity of plants in the ecosystem (and available to craftspeople). The wetlands contain a diverse range of flora and fauna, and provide valuable ecosystem services such as ground water replenishment. Around 12 threatened rush and reed varieties have also been conserved *in situ*.

The use of natural dyes in craft-making has also enhanced conservation of these species. Environmentally friendly agricultural practices and a commitment to diverse micro-land agricultural units have naturally had a positive impact on biodiversity in general. An increase in species, in particular birds, insects and other life is evident in these agricultural units as well in their immediate environs.

## SOCIOECONOMIC IMPACTS

The socioeconomic impacts from the project have been substantial. The average monthly household income has increased from USD 53.57 to USD 107.14. This increase can be directly attributed to the activities of the Rush and Reed Conservation and Diversification Program, and in particular to the introduction of production techniques and marketing. Jobs have also been created specifically within the





Committee for People's Rights as an organization, both full-time and part-time. Planting, processing, and weaving are undertaken at the household level as part-time employment, while value-added secondary processing and marketing constitute full-time employment. A total of 800 individuals work directly with the program, including 10 on a full-time basis.

Beyond the direct project beneficiaries, the concept of sustainable livelihoods has been introduced to and disseminated amongst the wider rural community of Sri Lanka. Other local groups are encouraged to adopt sustainable livelihood practices, including in the areas of eco-farming, organic agriculture, and the use and reintroduction of traditional crop varieties.

The community has benefited from the establishment of a fully equipped training centre in Horana, known locally as Gamagedara. The training centre is used to host workshops, demonstration activities, and as a processing centre for rush and reed crafts. The centre also serves as CPR's office and "showroom".

A clear social benefit has been the reintroduction and practical application of a traditional knowledge system and practice. This knowledge has been passed on to another generation of youth, who are increasingly becoming involved in traditional rush and reed craft work. The use of traditional knowledge has also facilitated an attitude shift amongst the local population to viewing the wetlands as a source of pride and sustainable economic value.

More than 95% of the CPR project beneficiaries are women, all of whom come from economically marginalized communities. Through these projects, local women have expanded their marketable skills, improved their financial stability, and learned leadership skills.

## POLICY IMPACTS

The Rush and Reed Conservation and Diversification Program is considered highly successful for using biological resources in a sustainable manner to improve local livelihoods. The project has been established as a model within Sri Lanka for the protection and application of indigenous knowledge towards the conservation of biodiversity. A number of government agencies in Sri Lanka have acknowledged the model employed by CPR, including some that previously had not acknowledged the economic value of rush and reed species.

Project activities have also had an impact at the local government level, influencing the thinking and planning of local government officials. There has been a noticeable attitude shift amongst local government officials towards the value of eco-agriculture, organic farming and the use of traditional crop varieties. The same has been true at the state level, where CPR has lobbied for recognition of traditional knowledge as a foundation of biodiversity conservation and sustainable use strategies.



# Sustainability and Replication



## SUSTAINABILITY

As of 2012, the initiative has been self-sustaining for five years, without the support of any external funds. The income generated through the marketing of rush and reed crafts and other products has been sufficient for CPR to cover its operational costs.

The key components of sustainability as identified by CPR have been effective marketing and market supply-chains, local training and capacity building, income generation, and awareness-raising. At the commencement of the project, the lack of markets for rush and reed products was a key barrier. With new product designs, it was possible to carve out a market niche, which is now one of the driving forces of production. Well trained staff with enhanced skills have been essential, and have helped to produce higher quality products, which ultimately allows for greater revenues. Community participation and engagement in the process was ensured through the economic incentives presented by rush and reed conservation, cultivation and processing. The availability of an alternative income stream was and remains a driving force behind community engagement and project sustainability. Finally, without awareness-raising, it would not have been possible to change attitudes towards the rush and reed craft industry in its initial stages.

## REPLICATION

Although few other groups have attempted to replicate the CPR model, CPR itself has been successful in offering training workshops to more than 2,000 individuals since the establishment of its training centre. Trainings, workshops and awareness-raising have been the primary vehicles for this knowledge exchange.

## PARTNERS

The Committee for People's Rights believes in the importance of networks and partnerships that facilitate the sharing of ideas, minimizing duplication of efforts and enhancing the possibility for replication. Outside funding has been mainly used for institutional development, training, and to a limited extent the purchasing of equipment. Initial funds were sourced from the Ministry of Environment and Natural Resources Community Environmental Initiatives Facility (CEIF), which provides small-scale funding for rural community-based enterprises. A critical initial injection of funding also came from the UNDP/GEF Small Grants Programme, which provided two grants of USD 10,412 (in December 2000), and USD 30,487 (in December 2002.)

The National Crafts Council has helped by providing plants. Similarly, the Department of Agrarian Services granted permission for people to once again use the fields that had remained under-utilized for many years. The National Handicrafts Board helped by way of training people in rush and reed based crafts. The National Design Centre's contribution came in the form of introducing traditional and new motifs and in market promotion.

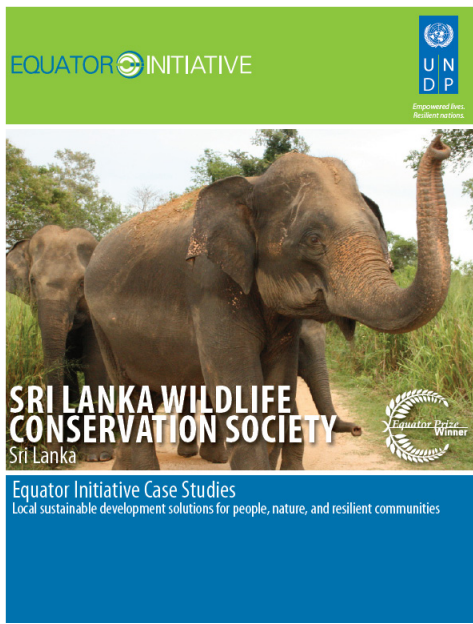
The Committee for People's Rights has established strong links with national level umbrella NGO organizations such as the Green Movement of Sri Lanka and the Movement for National Land and Agriculture Reform (MONLAR), which have for a long time been concerned with sustainable development issues. These links have helped enhance their knowledge of sustainable practices and make contacts with key organizations for the development of the initiative. Other partners include GREEN Foundation (Bangalore, India) and the Rush and Reed Producers Federation of Sri Lanka.



## FURTHER REFERENCE

- Amaleeta, N. 2008. 'Sustaining an enticing craft,' in *The Nation*. Sunday, April 6, 2008. <http://www.nation.lk/2008/04/06/eyepg6.pdf>
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