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“Household Energy and Carbon Finance”

The Carbon Solidarity Co-operative –
helping to transform the household cooking sector

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The Carbon Solidarity Co-operative – helping to transform the household cooking sector

Improved cooking stove programmes utilising carbon finance are only operating at the margins of household energy use. As the ultimate goal of interventions is sectoral transformation, a massive scale-up of present levels of dissemination is required. Furthermore, to offer viable alternative development pathways, project developers must also address the entirety of the biomass fuel cycle and the development of the next generation of biomass technologies. Programmatic CDM might provide a framework to achieve this goal. However the majority of project developers in the field lack the capacity and inter-organisational co-ordination to initiate interventions at the program level. One option would be to establish a collective of project developers to ensure equitable access to carbon finance for project developers and integrity of credits to buyers.

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Worldwide 2.5 billion people remain reliant on wood fuels for their energy needs. Despite a long history of interventions improved cookstove users are only a fraction of this number. A handful of stove programmes have been able to access carbon finance yet their numbers remain a drop in the ocean. Although these projects offer GHG reduction opportunities with laudable aims, if the ultimate goal of interventions is sectoral transformation then a massive scale-up of present levels of dissemination is required. A strategy to achieve this is to build on the foundations of successful projects in the household energy sector. Programmatic CDM and large scale projects in the voluntary market might provide a framework to achieve this goal. However the majority of project developers in the field lack the resources, capacity and inter-organisational co-ordination to initiate interventions at the programme level. One option would be to establish a regional co-ordinating entity to achieve economies of scale, offer project developers equitable access to carbon finance as well as to ensure the integrity of credits to buyers.

The impetus to form the Carbon Solidarity co-operative stems from a capacity building workshop of the ARECOP (Asian Regional Cookstove Program) network held in September 2007. ARECOP was initiated in 1991 as a network that facilitates the development of effective improved cookstove and biomass energy programmes at the household and small industry levels. ARECOP members had expressed an interest in obtaining carbon finance but requested further information and assistance. The rationale being that since it had been successfully demonstrated that stove projects can generate carbon finance, the benefits to the host country and the equity of carbon finance is greatly enhanced if project developers can unilaterally bring their projects to the market. With the validation and verification of the Cambodian New Lao Stove project using the Voluntary Carbon Standard (VCS) an opportunity arose to base such a workshop on the lessons learned from a project that had completed the full project cycle.

A key outcome of the initial workshop was that there exists a suite of proven project designs and technologies that are applicable across Asia, developed to address the negative impacts of the biomass fuel cycle. Supply side measures included sustainable energy plantations, briquetting municipal biomass waste and efficient charcoal kilns. Demand side measures include commercialised dissemination of both household and institutional stoves. Although

the technologies that have been developed are appropriate to specific circumstances, such contexts are repeated throughout Asia. For example, a project in Phnom Penh turning biomass waste into char Briquettes can be adapted to utilise biomass waste stream in other Asian cities. Recent methodological advancements in both the CDM and voluntary markets have meant that many of these activities have the potential to access carbon finance. However, harnessing this potential has proven problematic.

In order to aid the transfer of proven project designs and technologies it is possible to envisage a “cookie cutter” approach whereby skills and knowledge can be ‘cut and pasted’ from one appropriate context to another. Such projects could form the basis of large scale voluntary market projects or programmes of activities under the CDM, with enormous potential to reduce GHG emissions and contribute to sustainable development. To do so would require the establishment of a co-coordinating entity working at the macro level to develop baselines, bring existing projects to the market and develop further activities. The present working title for this concept is *Carbon Solidarity Asia (CSA)*.

Given the resource constraints of NGO’s in the field it is envisaged that the coordinating entity will take the form of a Cooperative. The aim of the Cooperative is to reduce risk to members and buyers alike, increase administration efficiency, reduce transaction costs, provide tools to members, and offer a platform for exploring financing options for eligible projects across the Southeast Asian region. As it grows, the Cooperative will become a pool of regional experience in carbon-finance project implementation.

At present many Cooperative members are developing carbon finance-eligible projects, including projects in Bangladesh, Cambodia, Indonesia, Laos, Nepal, Philippines, Sri Lanka and Vietnam. So the first step of the CSA will be an eligibility and capacity gap assessment. Whilst capacity varies on an organisational basis, a universal requirement for members is the perennial problem of ascertaining the renewability of biomass, so a preliminary task of the co-operative will be to undertake regional studies on this issue. This will require mapping areas where specific project designs and technologies are appropriate and where this coincides with the pre-requisite of non-renewable biomass.

Standardised project designs will be developed to meet the requirements of approved methodologies both in the CDM and voluntary market. Although there remain points of contention, we can learn from the handful of projects which have already been validated. These projects will form benchmarks of project design which can be adapted and applied throughout the region. To meet these benchmarks, field organisations will need assistance to orientate themselves towards the goal of accessing carbon finance. The Cooperative will provide tools to local organizations to develop the capacity to complete the carbon finance project cycle. Tools available will include technical training (research methods, baseline studies etc), document development support services, monitoring system verification, emissions reductions calculation support, technical support through the validation and verification process with DOEs, supervision of trades, etc. The Cooperative will also need to provide quality assurance/control for the work undertaken.

A further function will be to provide financing options to small-scale project developers where they currently have only one: traditional donor funding. At present there are many examples of project developers signing unfavourable Emissions Reductions Purchasing Agreements (ERPAs). This is because Buyers hold all the aces; they have greater experience, more market knowledge and familiarity with the concepts and terminology. On the other hand project developers are often dealing with an entirely new area of business, with the potential to take on unnecessary risks and not receive sufficient rewards. To reduce the likelihood of these outcomes the Cooperative will provide a platform for discussing project financing options. Project developers will be able to consider, based on the current implementation stage of their project, what type of financing and pricing they would like to pursue. If the project can accrue verifiable carbon credits without up-front investment, members would be encouraged to package their project attractively for carbon buyers and could be supervised

in the deal-making process. Members would also be encouraged to emphasize the sustainable development and environmental co-benefits of their projects to attract the highest price possible. If the project is at an early stage, members would be guided so that they are not pressured to sell for below-market rates and take on unnecessary risk.

To enter the carbon market standing on their own feet, NGOs ought to regroup and to share experiences and capacity. The least advanced can pick up speed, and altogether we can bargain down common costs, mitigate risks and increase project visibility and prices. As one of the current frontrunners GERES offers to reach out its peers in Asia and field NGOs are invited to join a regional cooperative platform "*Carbon Solidarity Asia*".

To conclude this brief paper we would like to extend an open invitation to field NGOs: A foundation meeting is needed to define the roles and responsibilities of the cooperative members, and of the secretariat. It will take place during the first week of June in Phnom Penh. If you are interested, please contact us to get involved.

If frontrunners in Africa and South America are interested, you are most welcome to join and adopt the concept for your regions.

Profile of the Author

Samuel Bryan is a Carbon and Technology Analyst in the Climate Change Unit of GERES Cambodia. His role in the CCU is to prepare project documentation and co-ordinate monitoring activities.

Groupe Energies Renouvelables Environment et Solidarités in Cambodia (GERES Cambodia) is one branch of GERES, a independent non-profit organization that has been promoting sustainable development for over 30 years in the South and North. GERES Cambodia aims are to contribute to preserving the environment and improving the living conditions of the Cambodian people. These aims are achieved by reducing fuelwood consumption, energy expenditure and the negative impacts of household energy utilization. In 2006 a Climate Change Unit (CCU) was established to facilitate appropriate action to reduce the vulnerability of those most affected by the impacts of climate change. This objective is realised through climate change awareness and education, developing high quality solutions for project developers, assisting business to achieve carbon neutrality and facilitating non-for-profit entry to the market. In 2007 the GERES New Lao Stove project was validated according to the Voluntary Carbon Standard. GERES Cambodia is working on generating emissions reductions from other biomass technologies such as improved palm sugar stoves, improved charcoal kilns, improved brick kilns and char briquetting programmes.