Ecological Economics 119 (2015) 230–240

Contents lists available at ScienceDirect

Ecological Economics

journal homepage: www.elsevier.com/locate/ecolecon

Analysis

Small-scale cooperative banking and the production of capital: Reflecting on the role of institutional agreements in supporting rural livelihood in Kampot, Cambodia

Arnim Scheidel [a,*], Katharine N. Farrell [b,c]

[a] Department of Environmental Studies, Masaryk University, Brno, Czech Republic
[b] Division of Resource Economics, Department of Agricultural Economics, Humboldt-Universität zu Berlin, Unter den Linden, 6, 10099 Berlin, Germany
[c] Institut de Ciència i Tecnologia Ambientals (ICTA), Universitat Autònoma de Barcelona (UAB), 08193, Bellaterra, Barcelona, Spain

ARTICLE INFO

Article history:
Received 30 January 2015
Received in revised form 14 September 2015
Accepted 14 September 2015
Available online 26 September 2015

JEL Classification:
A12
A13
B26
B52
G21
O35
Q14
Q57

Keywords:
Cambodia
Community finance
Flow/fund theory
Institutional analysis
MuSIASEM
Small-farmers

ABSTRACT

This paper explores the ecological economics of small-scale cooperative banking (SSCB) through reference to the empirical case of a rice-farming village in Kampot, Cambodia. It combines Georgescu-Roegen's discussion of an economy's capacity to produce economic processes with Ostrom's concept of institutional performance, in order to address the implications and functioning of SSCB within a small-farmer economy. The local collective action situation of maintaining and making use of a SSCB system – a specific finance model – provides the studied community with access to a pooled capital fund that may play an important role in ensuring its capacity to produce and reproduce economic processes, according to its own specifications. The coordinated action among the villagers, which matches up well with Ostrom's criteria for effective institutional performance of common pool resource use governance, is found to include social and environmental dimensions, which we understand to be necessary for achieving transformations toward more sustainable economic activity. While we do not wish to suggest that the adoption of SSCB guarantees either improved ecological or social impacts, our results suggest that this finance model could play a supporting role in enhancing the potential of small-farming communities to improve both, should they wish to do so.

1. Introduction

Small-scale cooperative banking (hereafter, SSCB), which is referred to variously as community finance, credit unions, or credit and savings cooperatives, has become a growing source for financial services in small-farmer economies across the global South (Evans and Ford, 2003). Similar to those first established in mid-19th century, among European farmers (Fairbairn, 1991; Goglio and Leonardi, 2010), such banking cooperatives, based on cooperation to foster saving and provide credits among members, present an alternative to current private and market-based micro-credit institutions (Gerber, 2015). Interest in SSCB has been growing in Cambodia, where small-farmer demand for rural credit is high (ADB, 2001; Ballard et al., 2007).

This paper aims to discuss the ecological economics of SSCB, particularly in terms of how SSCB functions, based on cooperation, to provide financial and other services in rural areas and considers the implications this may have for small-farmer based economies, including for how they are maintained and reproduced over time. Our empirical point of reference is the concrete example of SSCB's role in supporting the production of rural livelihood, understood as the set of activities and assets that a rural community has at its disposal to gain a living (Ellis, 1998), and is based on case study data collected in a non-industrialized rice-farming village, in Kampot Province, Cambodia. Daly (2014) has argued that ecological economics' focus on biophysical issues has pushed finance issues partly aside from the research agenda and we concur. Following Dittmer's (2015a; 2015b) call for more detailed ecological economic analysis of different finance models, we aim here to address the question of how SSCB, a finance model, may be conceptualized and studied from an ecological economics perspective.

* Corresponding author.
E-mail address: arnim.scheidel@gmail.com (A. Scheidel).

http://dx.doi.org/10.1016/j.ecolecon.2015.09.008
0921-8009/

To accomplish this, we use the MuSIASEM approach (Multi-Scale Integrated Analysis of Societal and Ecosystem Metabolism) proposed by Giampietro and Mayumi (2000a, 2000b, 2009) and associated protocols commonly applied to rural system analysis (Giampietro, 2003; Ravera et al., 2014), to organize the empirical case data. MuSIASEM, which is based on Georgescu-Roegen's flow-fund theory, allows us to structure these data in a way that is compatible with an institutional ecological economic analysis (Paavola and Adger, 2005; Vatn, 2005; Farrell, 2014), for which we employ concepts drawn from Ostrom's (1990) early work on collective action, applied in conjunction with concepts drawn from Georgescu-Roegen's (1971) flow/fund theory. Specifically, we combine Georgescu-Roegen's discussion of an economy's capacity to produce economic processes, which he refers to as the Π sector (Georgescu-Roegen, 1971:274–275), with Ostrom's (1990) concept of institutional performance. Although MuSIASEM is commonly used to analyze the performance of socio-ecological systems across several dimensions, it also specifically accounts for the role of human activity in the studied systems, providing an empirical basis for linking up flow/fund analysis with study of collective action and cooperation processes (Ostrom, 1990).

Our analysis addresses how SSCB, understood as a local institutional arrangement for collective action (Ostrom, 1990), enables the community level governance of a financial capital fund created from pooled individual savings, which in turn enables the community to provide the financial services of saving and borrowing to its own members, and also some social services. As a financial model, the SSCB studied here operates as a 100% reserve banking scheme (Daly, 1980, 2013; Dittmer, 2015a),[1] with constraints on capital outflow; interest payments to the SSCB are paid directly to villagers and the capital is available to support local economic processes (Douthwaite, 1996; Ward and Lewis, 2002). Maintaining an SSCB also has the potential to foster synergies with other community activities, beyond the financial, such as the empowerment of women and minorities, strengthening of food sovereignty or the provision of ready access to capital for maintenance of (environmental) infrastructure, all of which were observed in the study village.

We argue that this coordinated human activity, dedicated to the local governance of locally created financial capital, which makes new services available to villagers, can be understood as a case in point of what Georgescu-Roegen called the Π sector, characterized by increased capacity to *produce economic processes*, which he termed "the essence of development" (Georgescu-Roegen, 1971: 268–275). While increased capacity to establish economic processes that were not previously available to a community may be understood, generally, to enhance that community's capabilities (Sen, 1999; Scheidel, 2013a), our focus here is more specifically on how Georgescu-Roegen's theory concerning the production of economic processes, complemented by Ostrom's insights concerning institutional performance, can help advance the ecological economics discourse concerning finance.

The paper follows the conventional structure of first presenting background (Section 2), then the conceptual framework, methods and data (Section 3), followed by results and discussion (Section 4), and conclusions (Section 5).

2. Background: Cooperation in Cambodia and in the Case Study Village

The idea of setting up banking cooperatives in rural areas dates back at least to the project of Friedrich Wilhelm Raiffeisen, who established the first European farmers banking co-operatives in the early 19th century, in order to support small-holders facing economic difficulties (Fairbairn, 1991; Goglio and Leonardi, 2010). Through the pooling of individual savings, smallholder banking co-operative shareholders, operating on a small scale where members know each other, ensure each other's access to credit, generally at lower than market interest rates and with higher returns, while keeping transaction costs low.

While banking cooperatives have long had an influence on the development of financial institutions in Europe and the United States of America (ibid), in many other parts of the world, including Cambodia, they are comparatively new. In addition, due to the recent history of Cambodia, cooperation in general and the idea of farmer's cooperatives, in particular, have had strong negative connotations. With the rise of the rule of the Khmer Rouge (1975–1979), drastic measures were taken to establish the radical agrarian-based, 'Democratic Kampuchea', under which rural populations were uprooted and displaced and land collectivized. The Khmer Rouge's rule ended with Vietnamese occupation and the subsequent establishment of the People's Republic of Kampuchea (1979–1989). Although radical land collectivization stopped, solidarity groups composed of several families, called *krom sammaki*, were instituted in line with collectivist ideas and people were forced to cultivate the land collectively (Chandler, 2008). The current Kingdom of Cambodia was established in 1993, as a constitutional monarchy, with a free-market economy orientation and terms such as 'cooperative' or 'cooperation' became associated with an unpopular past. Twenty years on, suspicion of cooperation has partly disappeared, not least thanks to the large and continuous presence of aid and development programs in small-farmer villages. These programs generally promote community building through the establishment of grassroots organizations, which serve to foster villager cooperation, knowledge exchange, empowerment of women and minority groups and achievement of food security. They tend to include credit and savings cooperatives, which are intended to provide community-based financial services in remote rural areas.

The village analyzed here, the name of which is kept anonymous, is a non-industrialized rice farmers' village, consisting of 195 households, located in the coastal province of Kampot. Its economic activity is based on smallholder agriculture, consisting of wet season rice farming with an average yield of 2 t/ha and livestock production, complemented by other on- and off-farm activities. At the time of the field research, the average land holding of 0.9 ha/household was small, compared to the national average of roughly 1.7 ha/household in 2005 (ACI, 2005) and non-farm activities played an important role in the village economy (Scheidel et al., 2014). In the last decade there has been a strong presence of aid organizations, in particular of CEDAC (Cambodian Center for Study and Development in Agriculture) and GIZ (German Society for International Cooperation), fostering community development in the village.

During the field study a good deal of cooperation between the villagers was observed, represented by the existence of a variety of grassroots institutions, including the banking cooperative, a paddy-rice bank, a women's group, and a youth group. Table 1 provides an overview of both governmental and grassroots institutions in and around the village. While national governmental institutions are mainly focused on administration. Table 1 shows that grassroots institutions provide a number of services to the village and the surrounding areas.

The villagers have established a series of agreements in order to cooperate in collective resource management and to carry out the collective action required to maintain the SSCB, the paddy-rice bank, village infrastructure and empowerment at the village level. As explained in an interview during the field work, the idea for the villager groups was first introduced in 2003 by CEDAC, with GIZ also promoting different ideas, such as a paddy-rice bank. However, the villagers themselves were the ones who eventually established the groups and the related institutional arrangements, in 2005. According to interview respondents, the development organizations shared cases of best practices from other world-regions, which served as inspiration for the villagers to

[1] We note that the proposal of 100% reserve banking as a green banking alternative has been recently criticized, due to its exposure to potential impacts associated with high interest rate volatility (Dittmer, 2015a). We find, however, that this critique is less relevant for SSCB of the type discussed here, as the interest rates are set collectively by the members of the banking cooperative, usually on an annual basis.