

Green Cooperatives: A Strategic Approach Developing Women's Entrepreneurship in the Asian and Pacific Region

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Abstract: The Asian and Pacific region is home for over 60 percent of the world's population and more than 70 percent of the region's population lives in rural areas and primarily involved in agriculture. Integrating and empowering rural women by promoting women's entrepreneurship in green cooperatives has been recognized as an important approach to alleviate rural poverty and enhancing sustainable rural development. The promotion of women's entrepreneurship in the area of green cooperatives is a vital approach where women can play pioneering role for income generating activities, employment opportunities and improve quality of life for sustainable development. Furthermore, many reside in rural areas and agricultural employment comprises primary source of income for women. Women's development in the region depends on improving the situation of rural communities. The results from this paper show that, the sales volume of womenlink in South Korea has increased 24 times, from 267, 329,000 Korean won in 1990 to 6, 652, 929, 000 Korean won in 2005. However, women lack access to land credit, or production inputs, inadequate knowledge and business experience of cooperatives is limited. In conclusion, women's entrepreneurship through green cooperatives, capacity building and information can enable them to produce and market their green products.

Key words: Women % Entrepreneurship % Green cooperatives % Asia % Pacific

INTRODUCTION

The Asian and Pacific region is home for over 60 percent of the world's population and more than 70 percent of the region's population lives in rural areas and is primarily involved in agriculture. The agricultural sector contributes to overall economic growth as well as providing the poor with opportunities for socio-economic development activities [1]. There is growing acceptance that appropriate use of information and communication technology (ICT) can lead to improved knowledge and productivity necessary for long-term economic growth and sustainable development. Gender differences and disparities, should be considered in policies and programmes dealing with development and dissemination of new appropriate agricultural technologies. As a result, women will not benefit more from and will be privileged of technological advancement. Furthermore, primarily agricultural activities are gradually declining in

these regions. However, they still represent 60 percent of employment in many developing countries, especially in rural communities. It has been estimated that for every additional US\$ 1 generated through agricultural production in developing countries, economic linkages can add US\$ 3 to the rural economy [2]. Traditionally, agriculture activities in the regions heavily relied on family labours and women played a key important role in farming and improving the quality of life in rural areas. Women continue to contribute considerably to household income through farm and non-farm activities as well as through work as landless agricultural labourers. In addition, rural-to-urban drift is leaving behind less privilege groups, particularly the women in communities, resulting in the "feminization of farming". Population growth and environmental degradation impose severe threat on natural farm resources driving rural inhabitants to turn to non-agricultural activities for additional income. In addition, globalization is increasingly exposing small-scale

farmers, a majority of them women, to market conditions for which they are poorly prepared. Therefore, to adopt with the competition in the global economy, farmers especially women need to adopt new means such as diversification, value-addition and non farm production and improve marketing mechanisms. They also need to follow market trends and plan their production and marketing strategies and be aware of quality controls and standards of farm products to compete effectively in the open market. Hence, ICT can be a vital tool for rural communities in accessing market information and practical knowledge regarding new ways of farming and developing new products [3-4]. In many studies from literature, clearly note the contribution of small-scale green or organic farming in terms of alleviating poverty. In addition to generating income, organic farming had the potentials to conserve resources, diversify their crops, enable food security and improve environmental conditions. In many countries, agricultural cooperatives prove to be an important model of enterprise by which small farmers can organize and optimize limited resources to increase their income [4]. In order to transform small women farmers into entrepreneurs, it is important to provide them with access to credit, product and market information, technology and training in management skills and enterprise development. Cooperative institutions, especially agricultural cooperatives, are agencies that hold enormous potential for the development of women, particularly rural women. Although rural women are actively involved in the process of farm production, processing and marketing, they often lack the legal status, which prevents them from gaining access to credit, education and technology. Cooperative institutions can help accelerate the process of development and participation of women in their organizational and business activities. Moreover, from literature shows that, women's commitment and participation in cooperative organizations and other local government bodies not only provides them an opportunity to articulate their problems but also helps them to be an active partner in the decision making process. It is also known that women only cooperatives (e.g. cooperative banks, consumer stores, fruit and vegetable vendors) have done exceedingly well and provided a whole range of services to their members. Rural women cooperatives are, in most cases, working in isolation within a market that is restricted to their local area. Their limitation in promoting sales of products has often been exploited by middlemen. With E-business applications have great potential for such enterprises to sell their products to local as well as global market. The

objective of this paper is to examine the economic empowerment of rural women through building capacity in entrepreneurship skills to enable them to produce and market their green products in these regions.

Theoretical Background

Definitions: A cooperative enterprise is a group-based form of business which is owned and controlled by the same people who use its services. Cooperative enterprises are directed by norms, values and cooperative principles. Cooperatives are able to promote economic and social development because they are commercial organizations that follow a broader set of values than those associated purely with profit orientation. This is because cooperatives are owned by those who use their services, the decisions taken by cooperatives balance the need for profitability with the wider interests of the community. They also foster economic fairness by ensuring equal access to markets and services for the membership base, which is open and voluntary [5]. Cooperatives play an important role in job creation by directly providing productive self-employment for several million worker-owners of production and service provision cooperatives and non employees of these and other cooperative enterprises. Enterprise development most particularly the promotion of small and medium enterprises has been adopted as a strategy for job creation and economic growth in a large number of countries. More awareness and knowledge about cooperative form of enterprise, as an option to conduct business, is widely needed by the people most likely to benefit from it [6, 7].

Furthermore, apart from their economic potentials, cooperatives are also reported to offer their members socio-psychological benefits such as a sense of security and belonging, an awareness of personal influence and importance in the local organization [7]. For member entrepreneurs, cooperatives provide the setting for collective problem-solving and articulation of strategic and basic needs. The support and mutual encouragement a group of entrepreneur can assist each other in order to maintain or boost their self-confidence. Solidarity, social responsibility, equity and caring for others are among the core values on which genuine cooperatives are based. During the past decade, there has been a growing interest in the role of cooperatives in social and economic development within the United Nations system. The United Nations General Assembly officially adopted the core guidelines on cooperative development in 2001 and issued a report under the title "*Cooperatives in Social Development*" in 2005 that noted the potential of

cooperatives in promoting poverty eradication and enhancing social integration. Recognizing the importance of cooperatives in job creation, mobilizing resources and promoting the fullest participation in the economic and social development of all people, international agencies have been actively carrying out various cooperative projects. Cooperatives have shown to be particularly effective in agriculture. Cooperatives are now significant economic and social actors with a membership of approximately 800 million throughout the world [8]. Cooperatives continue to be an important means by which to overcome economic difficulties. For example, the economic crises in the 1930s and 1970s gave an impetus for the upsurge in funding new cooperatives to deal with the disastrous situations after the Second World War

Women's Cooperatives: Women's agricultural cooperatives have played an important role in rural development in mobilizing limited resources for women farmers and producers. Many traditional cooperatives continue to hold governing structures not conducive to free participation as they are governed by a primarily male-dominated structure. For gender mainstreaming in rural development, it is important to promote women's participation in cooperative entrepreneurship [9]. In agricultural activities, where many traditional cooperatives continue to hold governing structures not conducive to women's free participation, a potential option offering promise for rural women to form their own cooperatives. While efforts are being made to improve women's status within existing cooperative institutions, the establishment of women-led or women member cooperatives poses strong potential for sustainability promoting women's entrepreneurship in the agricultural sector [6]. In addition, to offer potentials in fostering women's entrepreneurship, income generation and empowerment, women's cooperatives offer several potentials benefits. A primary benefit is that it can serve as a major support network. It also offers the opportunity for women to exercise decision making power [9, 10].

A Canadian study reported that, women's organic farmers' emphasize the organic community, composed of women's cooperatives, as a support network, a learning environment and a social group for both new and established farmers [11]. According to the Canadian 2001 census of agriculture, women farmers are active in the organic farming movement as members of community supported agriculture and cooperatives. Cooperative enterprises can take on different forms. They can be set up by a group of enterprises or by individual

entrepreneurs wishing to benefit shared services, cheaper goods, easier access to market or higher prices for their products.

Furthermore, barriers to green or organic cooperative entrepreneurship can be small in many cases because organize at community level, cooperative usually can use available resources and practices that make low input and less initial investment possible for small-scale farmers and entrepreneurs. For example, women link, a leading woman's green cooperatives in the Republic of Korea, started with only 220 households at the community level and a small capital of US\$ 13,000. It currently has about 12,000 multi-community-based members and has increased sales volume 24 times between 1990 and 2005. It is linked mostly with small-size green producers' cooperatives at the community level in rural areas [9-11].

Women's Cooperatives by Their Functions: Cooperatives can be formed for a number of reasons. As long as there are common economic, social and/or cultural needs for which women farmers feel it is advantageous to join together and form enterprises that are jointly owned and democratically controlled, cooperatives are beneficial [12]. Agricultural cooperatives can also be classified by their functional services to members. It is not unusual for some cooperatives to have large national and/or international operations comprised of multiple functions while some cooperatives concentrate in one specific area and the following provides description of key functions of agricultural cooperatives.

2.3.1 Farmers' and agricultural producers' cooperatives

Farmers' cooperatives enable small women farmers to take collective action to reduce input costs and marketing risks. Through cooperatives, the farmers can do collective bargaining or purchasing to get the best deals on seeds, supplies and equipment and gain economies of scale. For example, small women farmers who cannot afford to buy heavy equipment on their own. Through cooperative, they can purchase the equipment jointly and/or lease them from the cooperative feel. Producers' cooperatives may also integrate an information centre or include an extension agency involved in work helping to stimulate new crops and farming techniques. Some of them are also active in community development and education in areas of farming as well as primary level business management and government lobbying [12].

Agro and Food Processing Cooperatives: Agro and food processing cooperatives are cooperatives which

engage in value-added activities from primary agricultural products. Cooperative form of enterprises makes it possible the joint purchase of expensive agro and food processing equipment and machineries which normally would not be possible for small scale agricultural producers. They offer the benefits of enabling the small producer to enter substantially more lucrative and profit making areas. Business in processed products is substantially more lucrative than business in primary goods. A study revealed that prices of primary products such as coffee, cocoa and sugar dropped from 200 to 400 percent while the value of processed goods such as instant coffee, chocolate bars and corn flakes increased more than 200 percent from 1980 to 2000 [13]. Furthermore, another study in Mexico noted that value-adding activities accounted for a 350 percent increase farmers' income [14]. Cooperative entrepreneurship increases small women farmers' prospects of being able to enter into these types of agri-business.

Marketing Cooperatives: Marketing cooperatives is a business organization owned by farmers to collectively sell their products. It allows producers to collectively accomplish functions they could not achieve on their own. Most agricultural producers have relatively little power or influence with large agri-business or food companies that purchase their commodities. Joining with other producers in a cooperative can give them greater power in the market place. In addition, cooperatives can give producers more control over their products as they make their way to consumers by allowing them to bypass one or middlemen in the market channel. Farmers capture more of the returns that would otherwise go to others [15].

Agricultural Consumers' Cooperatives: Agricultural consumers' cooperatives are composed of members who are regular consumers of agricultural products. They provide their members with safe, quality standard food at relatively low cost through collective purchases and direct trade with producers, eliminating the retailer's margin. In Republic of Korea, women are very active in community-based green consumers' cooperatives. In 2002, 61 percent of the members at the decision-makers level of community-based consumer cooperatives were women [15-16]. Similarly, in Japan has a great number of well developed green consumers' cooperatives and most of their members are women. Nearly 6 million households belong to consumers cooperatives founded at the community level [17].

Why Promoting Women's Entrepreneurship in Green Products?: There are prevailing opportunities that exist for women's entrepreneurship in the green or "organic" food industry. Organic food sales are increasing considerably in developed countries. As organic farming still comprises only a minor part of global farming, there are shortages in developed countries with the rapid increase of consumers demand. Farmers in developing countries are additionally well positioned to reap the benefits of growing demand for organic products since farms in developed countries tend to use more chemicals than those in poorer countries [18]. Entrepreneurship in organic farming and the foods markets offers strong potential for women entrepreneurs. The heavy initial capital investment required for conventional farming makes it difficult for women to enter this area as entrepreneurs. Moreover, through the formation of women's cooperatives to grow, produce and /or market green or organic products, women entrepreneurs can become better equipped to enter the market for green products and gain access to vital resources needed for business. Women's prevalence as a large number of the rural poor make development strategies for the poverty alleviation of women crucial [18, 19]. The promotion of women's entrepreneurship through the formation of women's cooperatives in the niche area of green products can be effective means of helping them to alleviate rural poverty.

The promotion of women's entrepreneurship in green or organic cooperatives is a relatively new concept and still developing in practices, if combined with marketing and skills development training, it has potential for fostering women's entrepreneurship, women's income generation and women's empowerment as well as helping them to alleviate rural poverty among women [20]. There is a strong policy rationale for proactively promoting women's entrepreneurship in green cooperatives and targeting the rapidly expanding eco-friendly market. Eco-friendly agriculture is a rapidly growing area and offers strong prospects for the future of rural development. This, combined with the strong largely untapped entrepreneurial potential of rural women, makes the promotion of women's cooperatives in the agricultural sector promising for contributing both to the economic development of rural areas and to advancement of women and women's empowerment [21].

Promotion of Women's Entrepreneurship in Rural Areas: Promoting micro and small businesses are increasingly seen as a means of generating meaningful

and sustainable employment opportunities, particularly for those at the margins of the economy such as women, the poor and people with disabilities [22].

Micro, small and medium sized enterprises have been recognized as a crucial way to promote women's economic empowerment while fighting poverty and gender inequity. They have been identified as engine of growth by many governments and their promotion has been adopted as development strategy by many institutional and regional players to create new jobs for developing countries and to drive innovation and economic dynamism. Micro, small and medium-sized businesses offer strong benefits for alleviating in rural areas and for rural development. In low income countries in the Asian and Pacific region, the rural population accounts for more than 70 percent, of the total population. Despite a decline in recent decades, agriculture still accounts for over 59 percent of total employment in the region [23, 24]. Cooperative entrepreneurship in agricultural development contributes to the economic empowerment of poor people living in rural areas. By joining isolated and scattered resources, it can help marginalized farmers to acquire opportunities for entrepreneurship and to strengthen capacity for self-help. Cooperative enterprises have significant advantages especially for rural women faced with gender constraints which limit their access to entrepreneurial resources [24]. Women's micro and small subsistence businesses play a crucial role in rural economy and in ensuring poor households survival. The women's entrepreneurship has also led to increased mobility among women, the creation of networks of women and the building of women solidarity. In the agricultural sector, women farmers have scarce access to agricultural resources and services for production due to gender inequalities, the double burdens of farming and family responsibilities and the lack of social services and government programmes to support women [25].

Therefore, providing effective support for women's businesses is crucial promoting women's entrepreneurship [26]. This include measures to facilitate the creation of women's businesses such as training programmes providing women with essential entrepreneurship skills, monitoring programmes to give women peer support. The establishment of business incubators is another important way of helping to ensure the survivability of women's business. It is essential that there be "gender awareness in designing and delivering support measures targeted at female entrepreneurs [27].

Green Cooperatives and Sustainable Development: Most countries in the Asian and Pacific regions have been experiencing environmental deterioration such as water and soil and natural disasters which have resulted from growth-first development strategies. These countries have begun to realize the necessity of environmentally friendly agricultural practices and of utilizing natural resources in a sustainable way [27]. Many governments have encouraged farmers to convert to continue organic agriculture by supporting them with financial incentives and various services in terms of education, research, extension and marketing. Furthermore, eco-friendly agriculture is an accelerator for rural development for other reasons. It accelerates the full integration of the economy into overall economy by promoting diversification. In present situation developing countries cannot help but move through the phase of diversification, the introduction and expansion of eco-friendly agriculture as a sector of diversifying development seems to be inevitable [27-28]. Crops diversification practices of eco-friendly agriculture with the use of various planning and harvesting schedules and value adding activities such as processing and marketing help to improve diversified farm activities. Furthermore, from empirical study also shows that labour inputs average about 15 percent higher in organic farming systems and labour demand is more evenly distributed throughout the year [29]. This means that the potential of the organic sector to employ rural employ is great, particularly in countries where a large population leaves in rural areas. Especially in countries such as Bangladesh, Bhutan, Cambodia, Lao People's Democratic Republic, Maldives, Myanmar and Timor Leste where the rural population comprises 70-90 percent of the whole population, eco-friendly agriculture can have a genuine impact on the regeneration of rural development, reducing one-sided urban migration and sustainable development [22].

Methodology: There are few comprehensive studies examining women's role in entrepreneurship pioneering the development of green products market through the creation of cooperative enterprises. This paper is based on literature review of all relevant materials including research studies, articles, case studies, surveys and reports published by the United Nations agencies, international organizations and academia related to gender, women's entrepreneurship, cooperatives and organic agriculture. A large portion of this literature and materials was accessed from useful reading material.

RESULTS AND DISCUSSION

Women and Rural Poverty: According literature more that two thirds of world's poor living in Asia where poverty is predominantly a rural phenomenon, less urbanized Economic and Social Commission for Asia and Pacific countries have the highest numbers of people living below the national poverty line. These people reside predominantly in rural areas (Table 1). Agricultural employment comprises the primary source of income for women. Approximately two-thirds of the women work in some area of economic activity. Women's development in the region depends on the improvement of the situation of rural communities (Table 2 and 3) However; two-thirds of rural women are

from low-income households. The poorest groups among these are female-headed households. In some areas of the region, this category exceeds 35-40 percent of all heads of household [30]. In developing countries, low paid employment in light industry enlarges the female workforce. As small farm production is increasingly unattractive to males they frequently abandon agriculture in favour of greater opportunities in urban areas, women are left as the main labour force to eke out a living in rural areas [6-30]. The feminization of labour leads to feminization of poverty with women undertaking an increased portion of less remunerative work. The feminization of rural poverty is tied to gender constraints in women's traditional roles [31].

Table 1: National and international poverty lines of selected countries

Country	National poverty lines				International poverty lines			
	Year	Rural	Urban	National	Year	Rural	Urban	National
China	1996	7.9	2.0	6.0	1998	4.6	2.0	4.6
India	1992	43.5	33.7	40.9	1994	36.7	30.5	35.0
Indonesia	1996	12.3	9.7	11.3	1998	22.0	17.8	20.3
Republic of Korea	1993	53.0	24.0	46.1	-	-	-	-
Malaysia	1989	-	-	15.5	-	-	-	-
Nepal	1995	44.0	23.0	42.0	-	-	-	-
Pakistan	1991	36.9	28.0	34.0	-	-	-	-
Philippines	1994	53.1	28.0	40.6	1997	51.2	40.6	40.6
Sri Lanka	1985	45.5	26.8	40.6	1990	38.1	35.3	40.6
Thailand	1990	-	-	18.0	1992	15.5	13.1	13.1
Vietnam	1993	57.2	25.9	50.9	-	-	-	-

Source: The World Bank

Table 2: Women's economic activity (ages 15 and above)

Country	Human development index (HDI) rank	Female labour force participation rate (%) 2003	Index (1990=100) 2003	As % of male rate 2003
Republic of Korea	28	54.4	113	71
China	85	72.4	98	86
Maldives	96	65.4	101	80
Indonesia	110	56.3	112	69
Mongolia	114	73.9	103	88
Myanmar	129	65.8	99	75
Cambodia	130	80.1	98	97
Lao People's Democratic Republic	133	74.6	101	85
Bhutan	134	57.1	100	65
Nepal	136	56.9	101	67
Bangladesh	139	66.5	101	76
Timor-Leste	140	73.1	96	86

Source: UNDP Human Development Report 2005.

Table 3: Gender inequality in economic activity

Country	Gender development index (GDI) rank	Expected years of female schooling	Female economic activity rate (ages 15 and above)		Female employment by agriculture (%)	
			Rate (%)	As % of male rate	Rate (%)	As % of male rate
Bangladesh	0.499 (110)	9	66.4	76	77	144
Bhutan	0.536 (134)	-	57.1	65	-	-
Maldives	0.751 (66)	-	65.4	80	5	31
Nepal	0.484 (116)	9	56.8	67	-	-
Cambodia	0.557 (105)	11	80.2	97	-	-
Lao people's Democratic Republic	0.528 (107)	8	74.5	85	-	-
Myanmar	0.564 (104)	7	68.5	75	-	-
Timor-Leste	0.429 (128)	-	73.3	86	-	-
China	0.741 (71)	13	72.5	86	-	-
Mongolia	0.664 (94)	12	73.8	88	-	-
Republic of Korea	0.882 (92)	15	54.1	71	12	

Source: UNDP Human Development Report 2004

Table 4: Yearly status womenlink

Year	No. of consumers	No. of producers cooperatives	No. of green goods	Sales volume (1000 won)	No. of branches	No. of stores	No. of staff
1990	747	n.a.	n.a.	267,329	2	0	2
1992	1,303	n.a.	n.a.	581,829	4	0	4
1994	1,889	n.a.	n.a.	924,349	4	0	6
1996	2,651	n.a.	n.a.	1,228,450	4	0	9
1998	3,025	n.a.	n.a.	1,218,182	6	0	12
2000	4,186	n.a.	n.a.	2,186,407	7	2	16
2002	7,745	n.a.	n.a.	4,942,493	7	3	22
2004	11,155	n.a.	n.a.	6,606,505	7	3	25
2005	12,007	100	900	6,652,926	7	3	21

Source: Korean Women-link Consumers' Cooperative

Green Entrepreneurship and Economic Empowerment:

The most important contribution of women in rural development is the womenlink in Republic of South Korea to social development lies in its pioneering role of women-led linkage between consumers' and producer's cooperatives. Meeting increased demand for green consumption, this linkage creates expanded capacity for women-led producers' cooperatives to pioneer entrepreneurial strengthening of women's empowerment in rural areas. Womenlink, as women's cooperative, does have a commitment to gender equality and thus makes efforts to redress the situations that the opportunities tend to prejudiced against women. From the results in Table 4, sales volume has increased 24 times, from 267,329,000 Korean Won in 1990 to 6,652,926,000 Korean Won in 2005. According to literature the womenlink has seven branches and 3 stores, deals with about 100 producers' cooperatives and carries about 900

green goods. Womenlink has a reasonable prospect for continuing success [32]. Furthermore, when it started in 1989, there were no organic items. At the time, consumers' demand was satisfied mainly with goods that were produced with less pesticide. At present, however organic items occupy a greater portion, meeting the increased demand for goods that are produced without using pesticides and chemical fertilizer [33].

Furthermore, women-link is democratically managed by a council that is composed of 200 delegates elected by members of women-link with a one year term. The delegates communicate and reflect members' suggestions and recommendations through the council. They discuss the year's plan and policies, profit margins, closing accounts and estimated budgets at the annual meeting. The women-link members can participate in the following four committees as per their interests such as green goods committee, education committee, public relations

Table 5: Activities of Cooperative Members

Area	Detailed activities
Cooperation	- Elect delegates, participate in general assembly meetings - Participate as members of Public relations Committee, Education Committee, Green- Goods Committee, Environment Committee - Food testing festival, sub-group gathering (women's studies, parenting, training, creativity training, etc.)
Activities with producers	- Field visits and lend a helping hand (children's and teen's farm camp) - Funding for duck farming and rice purchase - Duck farming festival (Spring), Producer-Consumer get together party (Autumn)
Campaigns	-Anti-GMO food campaign -Anti-love hotel proliferation, Anti-golf- course pollution campaign, etc
Recycling	- Egg boxes, grape juice bottles, apple crates Source: Women-link Green Goods Order Guide, 2006.

committee and environmental committee [32, 33]. Moreover, these women organizes various exchange programmes with producers' cooperatives, including releasing of ducks in the rice fields for organic farming during the rice planting season every June, harvesting festival trips to the production sites and day-worker experiences. Also, producers' talk festivals and Women Producers-Consumers Exchange are held on regular basis. Women-link organizes or participates in various campaigns for human and sustainable development such as the anti-GMO campaigns movement for the improvement of school meals, budget analysis and policies. The women-link has seven regional branches and under each branch, various small gathering are formed to initiate various activities as be seen in Table 5.

Women's Constraints: Women all over the world face considerable traditional constraints on their role in agriculture as well as from rural feminization poverty in the regions Studies have shown on women's role in agriculture in these countries show the gender realities that women are not given equal opportunities for empowerment, despite their immense contribution of specialize knowledge and a pool of highly-skilled labour in areas of agricultural and rural development in many countries [30]. The inequality stems from the traditional structure of gender that severely constraints women's productivity by the fragmentation of their time, their dual and triple responsibilities, most women's work day is longer than men's and many women have reached the limits of endurance in stretching their day. Also despite their harder labour, their gap with men is steadily widening. The percentage of rural women among the absolutely poor and destitute has been growing [6]. Women's constrains stem from the reality that women are more likely to do unremunerated work, work in low-wage jobs, earn less than men for the same work, gain smaller share of household income and be responsible for the family's basic needs [34].

Furthermore, the growth rate of agriculture is far lower than those of other sectors, but it engages a large percentage of the labour force. From other statistical results indicate that in some countries of the region at a similar level of development, the female contribution to rural labour exceeds 50 percent. In addition, the large number of undocumented, unpaid family workers who are women and girls probably means that women's labour contribution to the rural economy is much larger than official records indicate. As a whole women spend their labour in less remunerative or unpaid work and much of rural women's work is not captured in official statistic [35]. The fact that enterprises employ 13 percent of the labour force but contribute more that 25 percent of household incomes indicates that the employment in these enterprises is better remunerative than agricultural work. In long run, the meaningful shift responsibilities from men to women might help to abolish the gendered constraints in women's role in agriculture [36]. The effect is that not women but rather men are more likely to take over the better remunerative work in rural areas left by male migration. Women tend to remain trapped in a pattern of the feminization of poverty [37].

CONCLUSIONS

Many developing countries in Asia have been confronting problems of rural poverty and environmental degradation caused by the low competitiveness of their agricultural products and exploitation of natural resources. A major developmental agenda of these counties is to increase income from agricultural products for poverty alleviation and economic growth while ensuring agricultural sustainability. With trade liberalization, consumer demand for high-quality, safe and health food has been on the rise, while the price of standard subsistence crops has been steadily dropping.

Entrepreneurship in green/organic produce provides new opportunities to small farmers in developing countries. There are all indications that traditional small-scale farming technology is closer to the green/organic farming system, that organic systems are more labour intensive and that small women farmers can potentially produce green/organic products at relatively low labour costs may give these women cooperative entrepreneur a comparative advantage in the production of green products.

Moreover, organic system may results in more work opportunities for women smallholders throughout the year with its crop diversification practices as well as value adding activities such as processing and marketing. At the same time many Asian countries posses strong market potential for producing specialty, value-added products that sustain the agro-ecological environment. The green cooperative model of enterprise enables smallholders to make best use of these potentials by supporting the identification of specialty produce and it marketing opportunities, providing financial and business related services, linking farmers to effective marketing channels and creating key networks with partners in the local, governmental and international agencies arenas. They reach a broader market and strengthen partnerships, green cooperatives entrepreneurship and e-business development. In conclusion to ensure the effectiveness of rural poverty reduction strategies through the promotion of rural entrepreneurship, in particular among cooperative enterprises in the green products business, it is essential to factor gender mainstreaming into the planning process.

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