EAS Journal of Humanities and Cultural Studies
Abbreviated Key Title: EAS J Humanit Cult Stud
ISSN: 2663-0958 (Print) & ISSN: 2663-6743 (Online)
Published By East African Scholars Publisher, Kenya

OPEN ACCESS

Volume-2 | Issue-2| Mar-Apr-2020 | DOI: 10.36349/EASJHCS.2020.V02I02.012

Research Article

Female Farmers' Participation: A Case Study from Papaya Gardening Program in Village of Rindu Hati, Province of Bengkulu, Indonesia

Yessilia Osira*[1], Bayu Risdiyanto[2], Fahrurrozi Fahrurrozi*[3]

[1]Social Welfare Department, University of Bengkulu, Bengkulu 38121, Indonesia
[2]Communication Department, University of Dehasen, Bengkulu 38227, Indonesia
[3]Crop Production Department, University of Bengkulu, Bengkulu 38121, Indonesia

Article History
Received: 21.03.2020
Accepted: 11.04.2020
Published: 15.04.2020

Journal homepage:
https://www.easpublisher.com/easjhcs

Quick Response Code

Abstract: Female farmers in many developing countries play very significant roles in home-gardening, agricultural activities and shoulder responsibility in the provision of food and welfare for their households. Papaya is one of the most promising crops to grow in the village in which female farmers might be able to actively participate. Participation determines the successfulness of every single empowerment program aimed to improve community welfares, including papaya gardening program. This study aimed to determine participation of female farmers in papaya gardening program at village of Rindu Hati, Province of Bengkulu, Indonesia. A descriptive-qualitative research approach was conducted by in-depth interviewing of female farmers, direct observations of participating females in planning activities, preparing local based-compost, land preparations, papaya nursery and gardening. Data collection covered (a) characteristics of female farmers, (b) female participations (involvement, willingness, contribution, responsibility and levels of involvement). Results indicated that most of female farmers belonged to family with land ownerships less than 5.000 m^2 and monthly income of 72 USD, spent 7.75 years in school, played more responsible in domestic works and occasionally spent worked as part-time agricultural labor. The level of participation female farmers in papaya gardening program was considerably good as reflected by their active participations, enthusiasms and cheerfulness. In conclusion, the level of participation of female farmers in Rindu Hati village was classified into functional participation.

Keywords: Female Farmers; Papaya Gardening; Participation; Community Empowerment.

INTRODUCTION

Female farmers in many developing countries play important roles in daily life of village community, including in agricultural production. Report released by FAO (2011), claimed that 43 % of global agricultural labors are women and their contributions to agricultural and food production are very significant. This contribution has not presumably changed very much lately. In addition to their roles in family to take more responsible in domestic affairs and to raise children, female farmers also play significant roles in agricultural production. In Nigeria, for example, women play major roles in farming operations such as planting, weeding, and harvesting (Ajani, 2008). To some extents, certain crops are designated as "female" crops in some areas, *e.g.*, cassava and other ephemeral crops like melon, cocoyam are female crops. Other report also pointed out that women shoulder the responsibility in the provision of food and welfare for their households despite their access to little productive resources (Anosike and Fasona, 2004). Studies have shown that in many developing countries, the roles of women very significant in producing foods and yet they are among the most vulnerable groups.

Strengthening the roles of females are very strategic ways to improve the quality family life. Strengthening the roles of females will eventually reduce the poverty level in many poor communities. One of among many indicators to influence the successfulness of female farmers' roles is the level of participation contributed by females in community development. Participation of female farmers is very important attribute to improve the level and quality of life poor family in many areas. Hoofsteede (1971) defined participation as "the taking part in one or more phases of the process". According to Rifkin and Kangere (2002), participation was also well-defined as the roles of someone in an activity that covered aspects of awareness, involvement and benefits. Awareness measured how someone's gets involve in certain activity, self-driven, other-driven, or forced-driven. Involvement measured the roles and activeness of

***Corresponding Author:** Fahrurrozi Fahrurrozi Email: fahrurrozi@unib.ac.id

someone in certain activities, meanwhile benefits reflected output of activities in which someone gets involved. Efforts to strengthen the roles of female farmers in Indonesia have been more emphasized since early 2000's. The Government of Republic Indonesia has launched many strategic programs to support strengthening goals, included National Program for Community Empowerment, Village Fund Program, National Social Security Program, *etc*.

The Province of Bengkulu is one of Indonesian province with high percentage of poverty level that accounted for 15.41 % of its population (BPS, 2019). Continuous efforts have been addressed by the government to eradicate such problems through various empowering programs to the people of Bengkulu, including the inhabitants of Rindu Hati, a small village, located in Central Bengkulu Regency. This village is officially classified as one of poor village in the Province of Bengkulu. Our preliminary observations indicated that most female farmers of Rindu Hati are mainly responsible to domestic activities in their households and have available time to support their families by using small piece of land around their houses. Most of female farmers belonged to family with land ownerships less than 5.000 m^2, grown with coffee and located 3 to 15 km from the village. In addition, the female farmers played more responsible in domestic works and occasionally spent their time to support family as part-time agricultural labor. Their vulnerability was mainly in economic ability, infrastructure supports, health care and educational access. It was also clear that most female farmers in this village have strong agricultural background and had many limitations to improve themselves as significant others in the households. The use of agricultural lands around the house to produce cash crop might be a suitable option for the female farmers to support their family income. One of the promising crops planted around the house is papaya (*Carica papaya* L.), a tropical fruit plant that has high nutritional and economic values.

Papaya is one the popular tropical fruits that widely grown in Indonesia. This fruit is classified as perennial crop and thus are able to provide fruits all year long. According to Bakar and Ratnawati (2017), this fruit grows well on production areas that have climate of type A, B, C (Schmidt-Ferguson's classification), with annual rainfalls of 1000 to 2000 mm, water depth of 0.5 to 2.0 m, air temperatures of 15 to 35 ºC (optimum at 23-27 ºC), air relative humidity of 40 % and 500 to 1000 above sea level. Papaya is well adapted to many type of soil with pH of 6.5-7.0. Introduction of papaya gardening program might be suitable choice to strengthen the performance of female farmers in this village since they have agricultural background and papaya suitability to Rindu Hati's agro-climatic conditions is considerable supported. To successfully implement this program in this village, it is very important to determine the level of participation of female farmers. However, no studies have been focused on the participation characteristics of those promising groups

This study aimed to determine the participation of female farmers in papaya gardening program at village of Rindu Hati. Information on participation characteristics of female farmers would be very important in strengthening the roles of female farmers in poverty eradication programs. This program also expected to improve family income through the use of local resources as well as to organize female farmers working together in farmer's group.

METHODOLOGY

A pilot project of papaya gardening was designed, occupied 0.25 ha of land (provided by farmer group) from March to November 2018. Papaya seeds of California cultivar were germinated in plastic pan contained mixing of top soil and sand. After 15 days in this stage, each seedling was removed into polybag (12 cm x 7 cm in size) contained a mixing of top soil and composts (1:1). Seedlings were placed under seedling house shaded with coconut leaves, watered as necessary and fertilized with 1 g of NPK at two weeks old. After four weeks of seedlings, papaya was transplanted into the field, in a planting hole of 40 cm x 40 cm with 40 cm in depth. The planting holes were prepared at two weeks before panting and fertilized with 5 kg of compost. Compost was prepared by participating female farmers, at six weeks before planting, by mixing the green biomass, cow dung and effective microorganisms in a composting hut available in the village. Plant spacing was arranged in 2 m away within the row and 2.5 m between the rows. Maintenances of papaya growth and development follow standard practices for papaya production, including watering, fertilizing, weeding and pest controls. After two weeks of transplanting, cash crop vegetables were also planted accordingly to make a mixed cropping system. Those vegetables were water spinach (*Ipomoea aquatica* Forsk.) and spinach (*Amaranthus hibrydus* L.).

A number of 24 female farmers served as participants in papaya gardening project. Before the project implementation, potential farmers, village government official, public figures were invited to join the focus group discussion. To determine the participation levels of participating female farmers was measured in terms of (1) awareness, (2) involvement intensity, and (3) benefits for the participating farmers. Data and information were collected by using a descriptive qualitative method through in-depth interview, with participating female farmers as well as a simple questionaries' was also employed. Observations and interviews were conducted during pilot project implementation (land clearing and preparation, nursery management, crop maintenance, production of organic

fertilizer, fertilizing, and capacity building trainings). Documentary studies on relevant information available in the village. Awareness to participate in the papaya gardening program was measured by scoring, 3 (for self-driven participation), 2 (for friend-driven participation), and 1 (for forced-driven participation). High awareness was attributed to score of 49 to 72, Medium awareness for score of 25 to 48, and low awareness for score less than 24. The involvement intensity and benefits for the participating female farmers were measured by observations and distributing questionaries, respectively. Involvement was measured by their attendances in every activity of papaya gardening program. Benefit of the programs was calculated by distributing questionaries to the participating female farmers with the criterion of (1) beneficial, (2) less beneficial, and (3) not beneficial. Observations were ceased after 4 months of transplanting and hence no information on papaya yields and economic benefits were collected.

RESULTS AND DISCUSSION

Characteristics of female farmers

It is very important to understand characteristic of participating female farmers since it provides the assumptions used in discussions of the participation characteristics in this study. It appeared that the ages of participating female farmers were 75% between 31 – 50 years old and 12.5% of more than 50 years old. In terms of education, 58.3% of them completed elementary school, 29.2% completed Junior High School and 12.5% graduated from Senior High School. However, research revealed that 75 % of participating female farmers are currently enrolling to non-formal education certification offered by government (Programs namely Kejar Paket A, for Senior High School level and Kejar Paket B for Junior High School level). Characteristics of participating female farmers in this study are presented in Table 1.

Table 1. Characteristics of participating female farmers in Village of Rindu Hati

No	Female farmers			Husbands			Family member (people)
	Age (years)	Education	Occupation	Age (years)	Education	Occupation	
1	48	Elementary School	Housewife	50	Elementary School	Farmer	5
2	45	Elementary School	Farmer	49	Elementary School	Farmer	5
3	68	Elementary School	Farmer	-	-	-	1
4	36	Senior High School	Farmer	40	Senior High School	Farmer	3
5	40	Elementary School	Housewife	43	Elementary School	Farmer	6
6	39	Junior High School	Farmer	42	Junior High School	Farmer	3
7	50	Elementary School	Farmer	54	Elementary School	Farmer	5
8	49	Junior High School	Housewife	59	Junior High School	Farmer	4
9	48	Elementary School	Housewife	78	Elementary School	Farmer	5
10	35	Junior High School	Farmer	42	Elementary School	Farmer	4
11	68	Elementary School	Farmer	-	-	-	1
12	33	Elementary School	Farmer	41	Elementary School	Farmer	4
13	23	Junior High School	Housewife	31	Junior High School	Farmer	2
14	37	Junior High School	Housewife	35	Junior High School	Farmer	4
15	38	Junior High School	Housewife	46	Junior High School	Farmer	4
16	49	Elementary School	Farmer	53	Elementary School	Farmer	4
17	49	Elementary School	Farmer	56	Junior High School	Farmer	4
18	27	Elementary School	Farmer	31	Junior High School	Farmer	3
19	47	Senior High School	Farmer	-	-	-	5
20	30	Junior High School	Housewife	37	Junior High School	Farmer	4
21	78	Elementary School	Housewife	68	Not Completed Elementary School	Farmer	3
22	33	Senior High School	Housewife	35	Senior High School	Farmer	3
23	43	Not Completed Elementary School	Farmer	47	Not Completed Elementary School	Farmer	7
24	45	Elementary School	Housewife	50	Elementary School	Farmer	4

It was revealed that the average schooling year of participating female farmers was 7.75 years. Such figures are very important and might serve as the basis level for community empowering programs, since more educated female farmers are often more involved in community participation, especially in developing countries. According to Fakere and Ayoola (2018), educational level determined the level of community participations. Results also indicated that female farmers in this village were subjected to several vulnerabilities, including in economic ability, infrastructure supports, health care and educational access. They also had a poor quality of road access to their plantation areas (3 to 15 km away from the village. Another important characteristic of participating female farmers was related to the fact that they come from very

low income family (on average less than 1 million IDR (72 USD) per month). Such situation might be well anticipated in order to introduce empowering program to this community. Study conducted by Mustapa *et al.* (2018) concluded that economic vulnerability has a negative impact in programs offered by government for economically disadvantage community. Despite of the low income, female farmers in Rindu Hati village prioritized the use of income to support educational fees for their children. With respect to expenses for daily foods and medical, female farmers was less worry about the expenses as they relied on strong social bonds and norms, as well as emotional connections among the villagers.

Participation characteristics of female farmers

Results from interviews indicated that 100 % of participating female farmers joined the papaya gardening program was resulted from self-driven. Such high awareness might be due the willingness of the female farmers to improve their roles in supporting household income. Focus group discussion before the project implementation might have contributed to this high awareness. Indeed, at the beginning of the program, there were only 15 participants. However, after 3 weeks of implementation, the number of participating female farmers increased to 24. They came to take part into the program because they want to have additional source of family income.

Although their awareness was considerably high, results indicated that their involvement during the project implementation could have been better. Their involvement was measured by their attendances and contributions to the program activities, including, land clearing and preparation, papaya nursery, production of organic fertilizer, crop maintenance and program for capacity buildings. Results indicated that the highest intensity of participating female farmers' involvements were attributed to program for capacity buildings (62.5%), followed by their involvement in land clearing and preparation (50%). Detail profiles of involvement are presented in Figure 1.

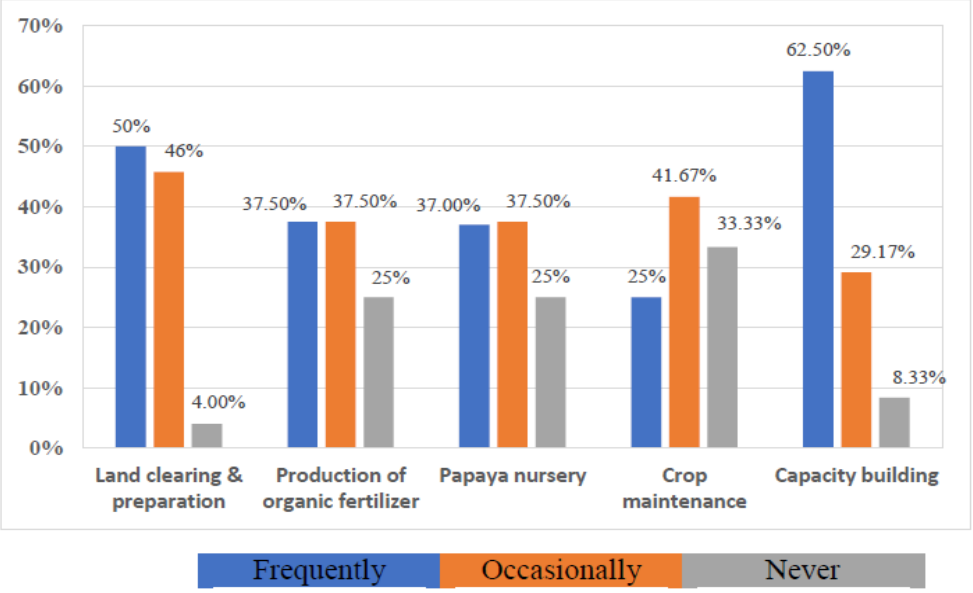

Figure 1. Intensity of involvement of participating female famers

High interests to participate in capacity building program reflected a strong willingness of female farmers to improve their knowledge and networks. Some of them emphasized that the importance of experiencing new things and interacting with new people in developing new opportunities to generate income. They claimed that this focus group discussion was not only will improve their knowledge in production of organic fertilizers and successful papaya gardening, but also will strengthen their beliefs that they can change their family lives to be wealthier and happier. Their strong commitment to improve their quality was reflected by the fact that 75 % of the participating female farmers are currently enrolling in non-formal education certification. Level of educational background might have played roles in high level of participation of female farmers in this village.

According to Chengcai *et al.* (2012) education level of the people in the community influenced the level of participation to development programs. Research conducted by Juma (2016) concluded that 98% of respondents suggested that level of education strongly determined community participation. In addition, participation of those people with secondary education in development projects was more than participations of other levels of education. With this level of education and their agricultural backgrounds, agricultural based activities might be the most suitable activity for the female farmers in Rindu Hati village.

Results also indicated that the lowest participation of female farmers was in the process of crop maintenance (33.3%), followed by in the production process of organic fertilizer (25%) and papaya nursery (25%). It appeared that they thought that they have already mastering such processes since they have a strong agricultural background. However, they claimed that their less participation was due to the (1) less interested in learning in production process of organic fertilizer, and papaya nursery, (2) they missed the schedules of program activities, and (3) they have to attend other more important social and family activities at time of program activities. Such reasons were understood since they just got organized into a new female farmer group. As a new group they need to learn how to execute a particular project as a group and to strengthen the group dynamic and eventually to have a strong farmer group. Each member in the must put their share to the success of group activities through continuous participations.

Level of participation can be determined by asking the participating female farmers about the benefits they earned from papaya gardening program. Results indicated that all participants agreed that papaya gardening program provided benefits for them. Details benefits are presented in Figure 2.

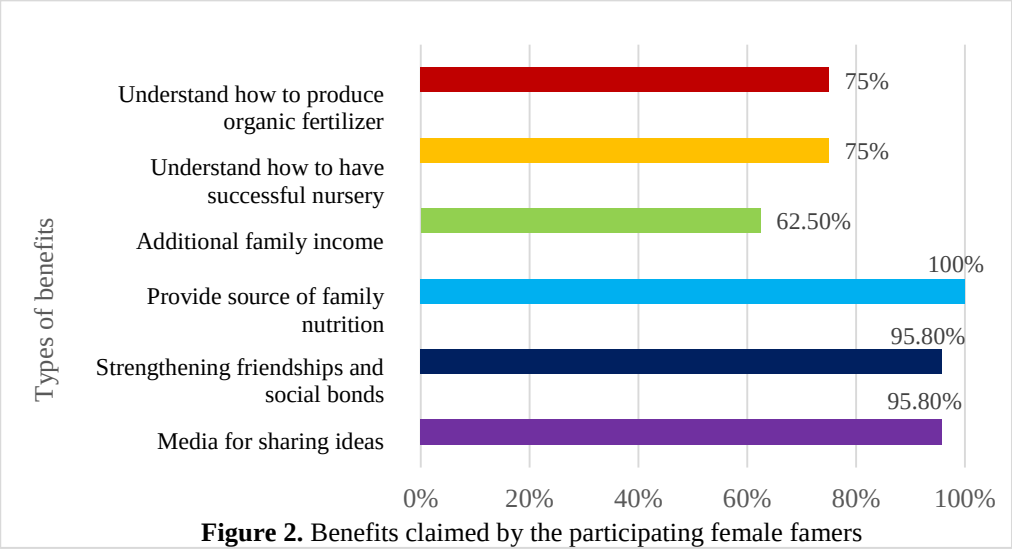

Figure 2. Benefits claimed by the participating female famers

It appeared that 100 % of participating female farmers gained benefits from this program in terms of providing source of family nutrition (Figure 2). This was due to the presence of vegetables (both water spinach and spinach) in papaya gardening in which farmers might be able to harvest it during the grass period of papaya production. The female farmers also claimed that papaya could also be used as source of their cuisines from flowers, young leaves and young fruits. Replanting the same vegetables or growing other types of short term vegetables in the papaya field would not only increase the variation and continuity of nutrient supply for the family, but also increase land use efficiency.

Results also indicated that more than 95 % of participating female farmers claimed that they had benefit in terms of strengthening friendships and social bond as well as considered that this activity served as sharing media for their ideas, concerns and other family matters. Furthermore, although the papayas were not harvested yet, 62.5 % of the participants believed that papaya gardening project would eventually contribute to increasing family income. Introducing short growing vegetables in papaya plantation was also believed to reduce their family expenditures as they do not have buy it from the local markets and gained additional income buy selling those vegetables. Economic reasons might be one of the main reasons for the female farmers in this village to actively participate in papaya gardening program since this program might provide additional income for the family. According to Ngugi *et al*. (2003) households with lower incomes appeared more likely to participate in development projects in rural areas.

Referring to participation typology proposed by Prety (1995), results indicated that the level of participation female farmers of Rindu Hati village is classified as functional participation. This was explained by the fact that the people in the community started to establish a group as a part of the introducing project after series of discussions and agreements. At the beginning of the activity, the people depended on external parties and gradually strengthen themselves to be less dependent. Other supporting reasons to classify that the female farmers in this village belong to level function participation are (1) this program was initiated by external parties (*i.e*., the researchers), (2) they still need guidance and technical advisories during the implementation of the project. They worked together with the researcher teams to plan, to execute and to

ensure the project got implemented. For example, they decided to make composts as sources of fertilizer for their papaya gardening project and wanted to understand how to produce composts. They provided materials to produce composts for their papaya gardening and work together with the instructors provided. They also very eager to attend the group discussions provided during the project implementation.

The strength of female farmer participation in this village was also supported by the social and cultural values they believed in this village. In-depth interviewed with the participating female farmers revealed that they feel very convenient to live in this village since the most of the inhabitants have high social bond and social norms, for example helping and caring each other with high spirit of neighborhood. In addition, a husband of participating farmer as well as chief of the village claimed that helping each other among the villagers is traditionally inherited and maintained to become a part of their living values. These social resources might have endorsed participation of female farmers to participate in the papaya gardening programs.

CONCLUSIONS

1. The level of participation of female farmers of Rindu Hati village is classified as functional participation
2. Despite of their vulnerabilities, female farmers of Rindu Hati have high awareness to improve their quality of life, eager to learn and participate in papaya gardening program

REFERENCES

1. Ajani, O. I. Y. (2008). Gender Dimensions of Agriculture, Poverty, Nutrition, and Food Security in Nigeria. *International Food Policy Research Institute*.
2. Anosike, V., & Fasona, M. (2004). Gender Dimensions of Urban Commercial Farming in Lagos, Nigeria. *Urban Agriculture Magazine, 12, 27-28.*
3. Bakar, B.A., & Ratnawati. (2017). Petunjuk Teknis Budidaya Pepaya dalam Membangun Pertanian Berkelanjutan. *Balai Pengkajian Teknologi Pertanian Aceh. 35 pp*. http://nad.litbang.pertanian.go.id/ind/images/01-Edited-JuknisPepaya.pdf
4. BPS. (2019). September 2018, Persentase Penduduk Miskin Provinsi Bengkulu Turun 0,18 Persen Poin. *Biro Pusat Statistik Provinsi Bengkulu*. https://bengkulu.bps.go.id/pressrelease/2019/01/15/411/september-2018--persentase-penduduk-miskin-provinsi-bengkulu-turun-0-18-persen-poin.html
5. Chengcai, T., Linsheng, Z., & Shengkui, C. (2012). Tibetan Attitudes Towards Community Participation and Ecotourism. *Journal of Resources and Ecology, 3(1),8-15.* https://doi.org/10.5814/j.issn.1674-764x.2012.01.002
6. Fakere, A.A., & Ayoola, H.A. (2018). Socioeconomic Characteristics and Community Participation in Infrastructure Provision in Akure, Nigeria. Cogent Social Science. 4:1. 1437013. https://www.tandfonline.com/doi/full/10.1080/23311886.2018.1437013
7. FAO. (2011). The Role of Women in Agriculture. Prepared by the SOFA Team and Cheryl Doss. ESA Working Paper No. 11-02. *Agricultural Development Economics Division. The Food and Agriculture Organization of the United Nations*. Retrieved from : http://www.fao.org/3/am307e/am307e00.pdf
8. Hoofsteede, W.M.F. (1971). Decision-Making Processes in Four West Javanese Village. *Druk: Offsetdrukkerij Faculteit der Wiskunde en Natuurwetenschappen Nijmegen. 219 pp.*
9. Juma, E.M. (2016). Determinants of Community Participation in Development Projects in Tana River County, Kenya. *Master Thesis. The University of Kenya. 72 pp.*
10. Mustapa, W., Al Mamun, A., & Ibrahim, M. (2018). The Effect of Economic Vulnerability on the Participation in Development Programs and the Socio-Economic Well-Being of Low-Income Households. *Societies, 8(3):60.* https://doi.org/10.3390/soc8030060
11. Ngugi, D., Mukundu,D., Epperson, J., & Achempong, Y. (2003). Determinants of Household Participation in Rural Development Projects. *Selected presented in Southern Agricultural Economics Association Annual Meeting, Alabama. USA. Feb.1-5, 2003*. https://www.researchgate.net/publication/23515864_Determinants_of_Household_Participation_in_Rural_Development_Projects
12. Pretty, J. (1995). Regenerative Agriculture: Policies and Practice for Sustainability and Self-reliance. *London, Earthscan*.
13. Rifkin, S.B., & Kangere, M. (2002). What is Participation? A participatory Strategy in Africa. *Ed. S. Hartley, London: University College London.*