

# Community-Based Governance Arrangements for Charcoal Production in Ghana



*Tropenbos Ghana  
January 2020*

# Outline

- Background & Rationale
- Aims and Objectives
- Methodology
- Results & Discussion
- Conclusion
- Recommendations
- References



## Background & Rationale - 1

### ➤ Charcoal:

- Long history
- Key energy source (Arnold *et al.*, 2006; Zulu and Richardson 2013; IEA 2014).
- Livelihood to more than 2 billion people (MEA, 2005)
- Gap-filler for seasonal income shortfalls and a major mitigation option for economic shocks (Brobbe *et al.*, 2019).

- Notwithstanding its importance, the sub-sector remains poorly regulated (Sawe, 2012).
- Attempts to regulate the sub-sector overly focused on revenue generation; neglecting other aspects, e.g. production; key to sustainability (Zulu 2010).
- Local governance attempts to bridge this gap at varied temporal and spatial scales.
- Charcoal production practices do not promote sustainable resource use, threatening sustainability (MLNR, 2012; UNDP, 2014).
- What is the nature/ approach of community governance for charcoal production and what needs to change to make them effective?

## Background & Rationale - 2

- Towards sustainability, government increasingly trying to formalise (regulate) the charcoal subsector.
- Evidence suggests that, this imperils CBGAs with the potential to reduce local communities' access to raw material in favour of large scale companies, with implications for locals' resource access, livelihoods and conflicts between state and customary governance structures (Espaldon *et al.*, 2016).
- Little insight on best practices on existing community-based governance arrangements which could adapted and scaled-out.

## Aim & Objectives

- Examine the effectiveness of community-based governance arrangements for charcoal production and describe how they have evolved overtime

### *Specifically:*

- Assess how community-based charcoal governance arrangements in the Atebubu-Amantin District have evolved over time and the factors driving those changes.
- Assess stakeholders' perceptions on the effectiveness of the existing arrangements in promoting sustainable charcoal production.



# Methodology

## ➤ Study area

- Atebubu-Amantin District
  - 3rd major charcoal producing forest district (Nketiah & Asante, 2018).

## ➤ Research design

- Mixed method (Qualitative & Quantitative)

## ➤ Data collection

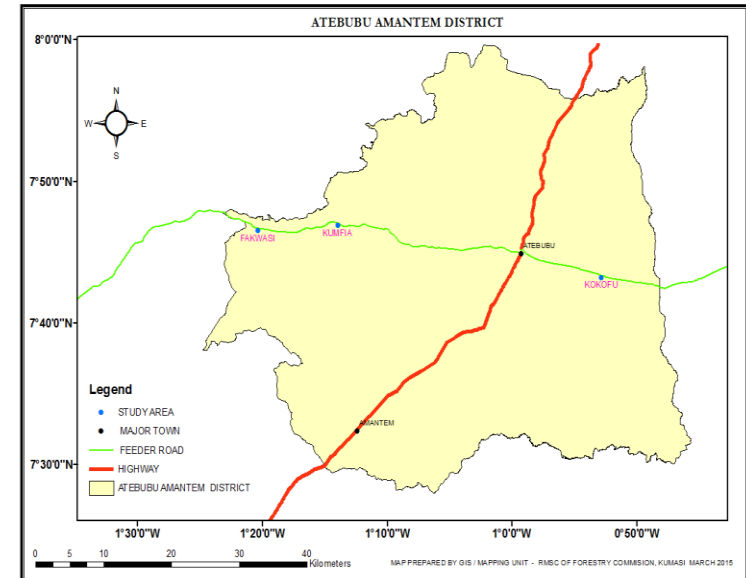
- Primary data (survey, interviews, key informants, focus group discussions)
- Secondary data (official report i.e. project reports)

## ➤ Sampling

- Purposive

## ➤ Data analysis and presentation

- ANOVA and Kruskal Wallis test used to analyse difference in responses
- Content/Thematic analysis based on underlying theory (Tragedy of the Commons and Collective Action)
- Results in narrative and graphical formats



# Results

- 1.1 Evolution of CBGA
- 1.2 Stakeholders perceptions on the effectiveness of the arrangements towards sustainable charcoal production.

## 1.1.1 Origin and evolution of CBGA - 1

### ➤ Origin of CBGAs

- General acknowledgement and awareness of the existence of CBGA on charcoal production
- Exact date for instituting the arrangement unknown
  - Origin linked to commercial charcoal production; chiefs/landowners lease out land under an agreed benefit sharing arrangement



## 1.1.1 Origin and evolution of CBGA - 2

### ➤ Evolution of CBGAs

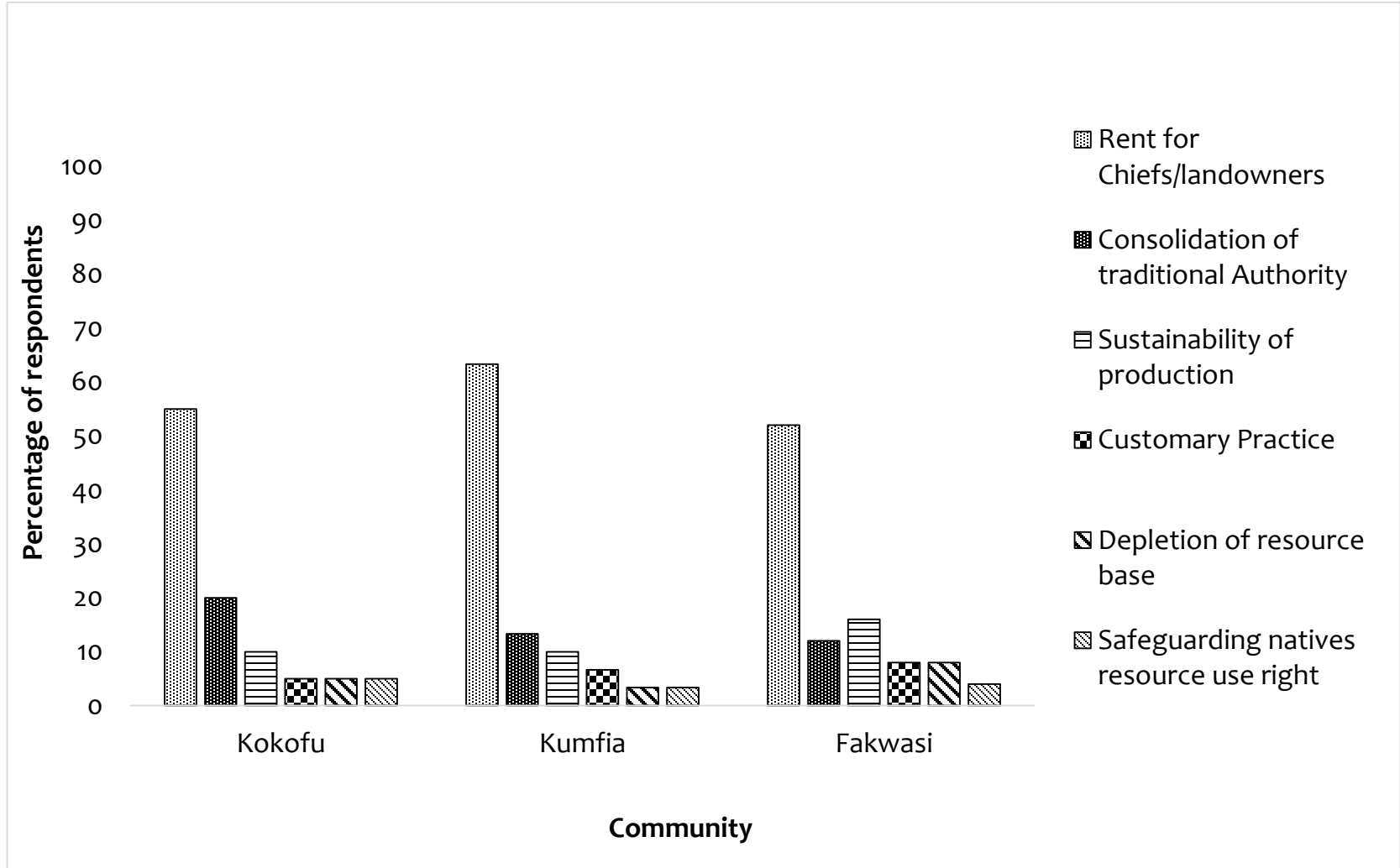
- Improved stakeholder involvement (Unit committee, charcoal producer associations, etc.)
- Expanded geographical coverage of the arrangements
- Mode of payment for charcoal resources now in monetary terms

*“At first, you could produce charcoal even if you didn’t have money to pay for trees or rent land. All you need is to assure the chief or landowner that you would give him his share. But now, you must pay something (money) before you can produce. That is why some of us rely on merchants to pre-finance our production activities” - Key informant 1, February 2017.*

- Closer interface with statutory bodies

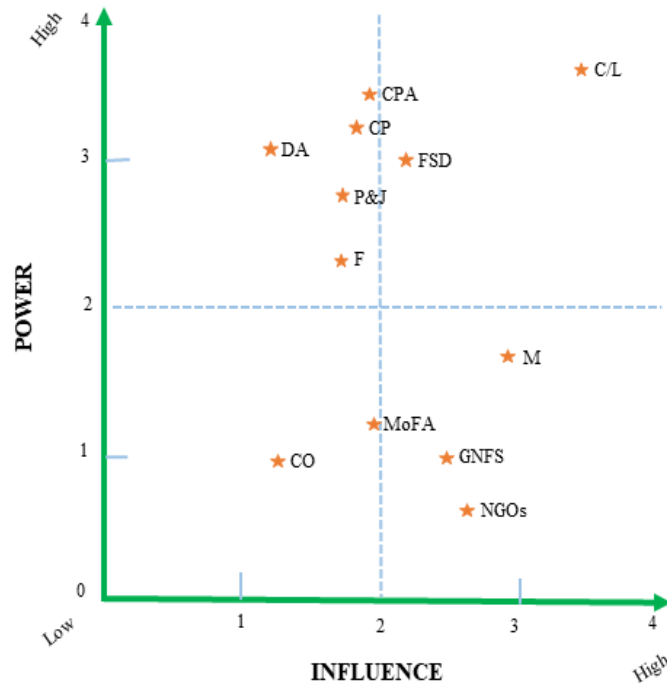
*“It is difficult to produce charcoal without following the arrangements considering that, chiefs are custodians of the land. To work on the land, you need to respect their decisions, or they can sanction you or report you to police or FSD for your arrest, and charge you especially for illegal sourcing of trees” - Key informant 2, February 2017.*

## 1.1.2 Factors that necessitated the institution of the arrangements

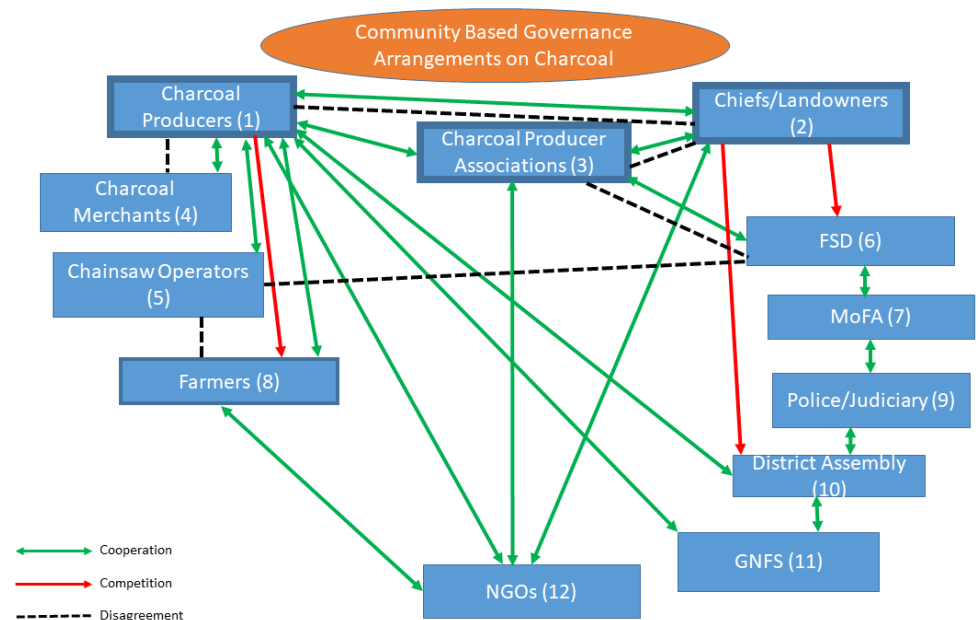


## 1.1.3 Stakeholder analysis

### ➤ Stakeholder Involvement, Power/Influence, Importance & Relations



Legend	
C/L	Chiefs/Landowners
CP	Charcoal Producers
CPA	Charcoal Producer Association
M	Merchants
CO	Chainsaw Operators
FSD	Forest Service Division
MoFA	Ministry of Food and Agric
F	Farmers
P&J	Police and Judiciary
DA	District Assembly
GNFS	Ghana National Fire Service
NGOs	Non-Governmental Organisations



## 1.1.4 Decision making and aspects of CBGA

### ➤ Decision making process

- CBGA/customary practice pronounced and enforced by traditional authorities

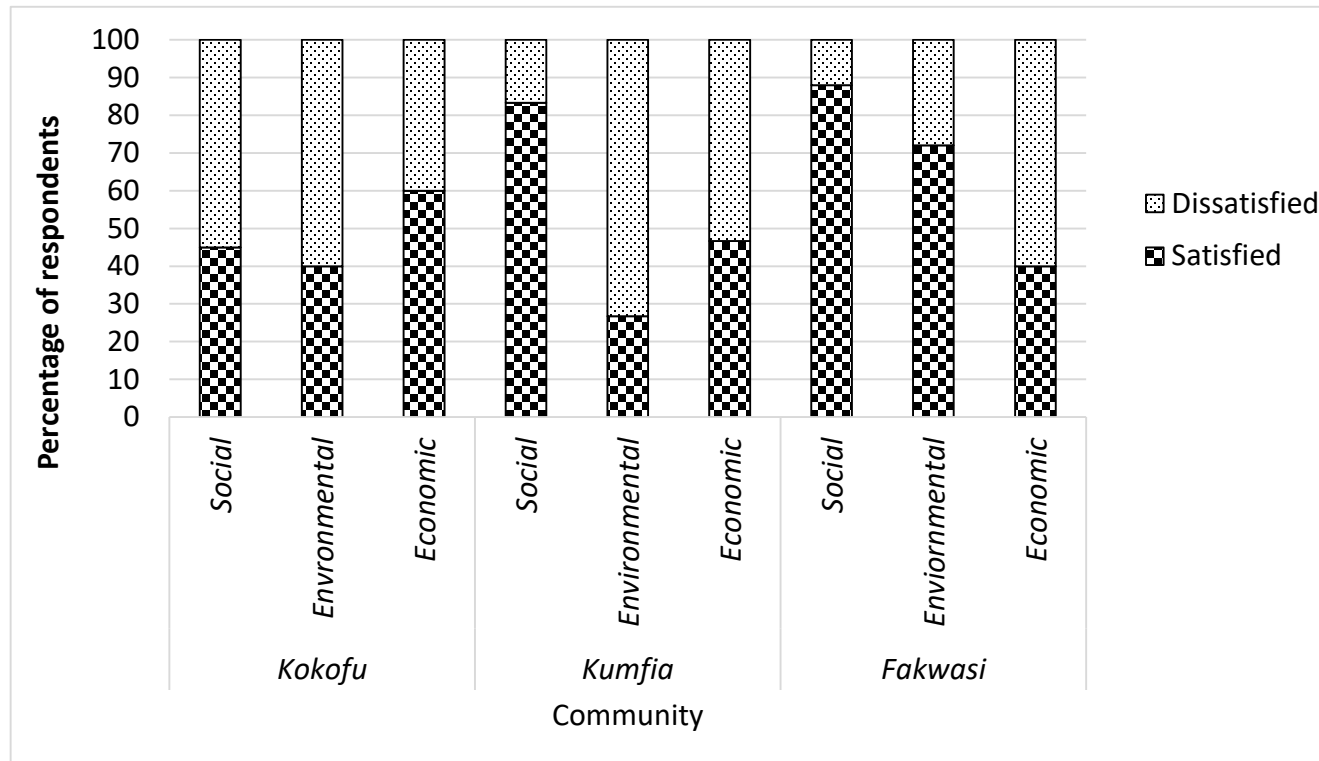
*“Chiefs are responsible for initiating and superintending over arrangements that guides charcoal production” - key informant 3, February 2017.*

### ➤ Aspects of charcoal production covered by CBGA

- Social Aspects
  - Social relations
  - Right and access to resources
  - Benefit sharing
  - Enforcement
- Environmental Aspects
  - Sustainability of resource base
  - Integrated woodlot
- Economic Aspects
  - Pricing of charcoal
  - Financial support

➤ Environmental aspect not applicable in Kumfia owing to land tenure dispute between the traditional authority and some community members

## 1.1.5 Stakeholders satisfaction on how CBGA cover aspects of charcoal production



### ➤ Statistical significance in stakeholder satisfaction

- Social aspect ( $p = 0.001$ )
- Environmental aspect ( $p = 0.002$ )
- Economic aspect ( $p = 0.893$ )

## 1.1.6 Reforms in the arrangements

### ➤ Changes made in all aspects

*“Unlike previously, we the natives of this community are now expected to pay for wood for charcoal production or offer two bags out of every 20 bags produced to the chief” - Focus group discussion 2, Kokofu, February 2017.*

### ➤ Drivers of reforms in CBGAs

Drivers of reforms	% of respondents (N=75)		
	Very Likely	Likely	Not Likely
Increase in demand of trees	41.3	33.3	25.3
Conflict situations/new charcoal issues	68.0	28.0	4.0
National directives	88.0	9.3	2.7
Land grabs	4.0	17.3	78.7
Experiences/practices from elsewhere	11.7	33.3	25.3

## 1.1.7 Perceived impact of changes in CBGA on charcoal production

Provisions under the arrangements	Percentage (%) of Respondents			
	Kokofu n=20			
	Very High	High	Low	Neutral
Access to trees for charcoal production	80	15	0	5
Sustainability of resource base	5	10	60	25
Plantation Establishment	5	10	15	70
Benefit sharing	85	10	0	5
Enforcement	70	25	0	5
Pricing of charcoal	10	15	50	25
	Kumfia n=30			
	Very High	High	Low	Neutral
Access to trees for charcoal production	50	26.67	3.33	20
Sustainability of resource base	6.67	10	26.67	56.67
Plantation Establishment	0	10	36.67	53.33
Benefit sharing	63.33	23.33	3.33	10
Enforcement	53.33	30	3.33	10
Pricing of charcoal	6.67	33.33	40	20
	Fakwasi n=25			
	Very High	High	Low	Neutral
Access to trees for charcoal production	52	32	4	8
Sustainability of resource base	8	4	60	28
Plantation Establishment	0	4	56	40
Benefit sharing	60	28	0	12
Enforcement	52	36	4	12
Pricing of charcoal	20	16	12	24



## 2.1.1 Effectiveness of CBGAs - 1

### ➤ Strengths

- Less bureaucracy; easy access to resources
- Conflict prevention and prompt resolution mechanism
  - Responsive/adjustable to stakeholder needs

*“I was stopped from producing charcoal due my inability to pay in full cost of trees offered by a farmer. However, the chief appealed on my behalf and an agreement was reached where I paid the farmer after producing and selling the charcoal” - Sumaila Bukari, 9<sup>th</sup> March 2017*

- High rate of compliance
- Conformity and support for national regulations

### ➤ Constraints

- Lack of legal backing
- Cultural difference
- Land grabs/tenure issues
- Disrespect for traditional authority due to education, orthodox religious beliefs, urbanization, etc.
- Lack of accountability

## 2.1.1 Effectiveness of CBGAs - 2

- Ranking of effectiveness of CBGAs towards sustainable charcoal production

Aspects of CBGA	Effectiveness score		Total score	Mean	Ranking
	Mini	Maxi			
Enforcement	1	4	151	2.01	1
Access to trees for charcoal production	1	4	159	2.12	2
Benefit sharing	1	4	159	2.12	2
Sustainability of resource base	1	5	258	3.44	3
Plantation establishment	1	5	274	3.65	4
Pricing of charcoal	1	5	304	4.05	5

Respondents: (N=75)

Effectiveness rating: (1=highly effective, 2=effective, 3=uncertain, 4=ineffective, 5=highly ineffective)

## Conclusion

- CBGA was necessitated by the desire for chiefs to generate rent from charcoal production but has evolved to incorporate social, economic and environmental issues related to charcoal production.
- Charcoal producers are the most important stakeholders whereas chiefs remain the most powerful under CBGAs.
- Decisions under CBGAs are mainly taken by chiefs though one can appeal for modification
- Stakeholder satisfaction with how CBGAs addresses social and environmental issues varied among the three communities but not for economic issues.
- CBGAs not static; both local and national initiatives trigger changes in the arrangements, but national directives appear to be influential.
- Enforcement mechanism, benefit sharing and procedures on access to tree resources are effective, but not with measures on sustaining the resource base, plantation/woodlot establishment and pricing of charcoal.

## Recommendations

### ➤ For Policy and Management

- State institutions and CSOs should create awareness among communities on the relevance of CBGA for charcoal production, the need to participate, manage, and own their natural resources.
- Formal sector institutions should embrace and align CBGA with national development strategies, management priorities and interventions targeting sustainable charcoal value chain.

### ➤ For Research and Knowledge

- Formulate studies to:
  - investigate whether findings in this study resonates with other charcoal producing areas under same/similar CBGAs
  - provide options for strengthening CBGA towards sustainable charcoal production

## Literature Cited



- Adger, Neil W; Benjaminsen, Tor A; Brown, Katrina & Svarstad, Hanne (2001) Advancing a Political Ecology of Global Environmental Discourses. Development and Change 32, pp.681-715
- Amanor, S.K. & Brown, D. (2003) Making Environmental Management More Responsive to Local Needs: Decentralisation and Evidence-Based Policy in Ghana. ODI Forestry Briefing, 3, April 2003
- Brobbey, L.K., Asante, J. Sampong, E.K., Kumeh, E.M. & Nketiah, S.K. (2015) Securing Rights to Wood Resources for Charcoal Production in Ghana: A case study of the Atebubu-Amantin District. IIED & TBI Ghana
- Decentralised Development Action Research (DEAR) (2005) Charcoal Burning in the Kintampo Districts: Policies, Environment and Livelihood Issues. The DEAR Project
- Espaldon, M. L. O., Sumalde, Z. M., Rebancos, C. M., & Alcantara, A. J. (2016). Who wants to adopt sustainable charcoal production?: Determinants and willingness to adopt sustainable practices among small-scale producers in Quezon Province, Philippines. Journal of Environmental Science and Management, 19(Special Issue 2), 84-92.
- Hardin, G. (2009). The tragedy of the commons. Journal of Natural Resources Policy Research, 1(3), 243-253.
- International Institute for Sustainable Development (IISD) (2016) *Sustainable Development* [Accessed online] <http://www.iisd.org/topic/sustainable-development> [01.11.2016]
- Integrated Network for Social Sustainability (INSS) (2016) *What Is Social Sustainability*. National Science Foundation (NSF) [Accessed online] <https://clas-pages.uncc.edu/inss/what-is-social-sustainability/> [01.11.2016]
- Ostrom, E. 1990. Governing the Commons: The Evolution of Institutions for Collective Action. New York: Cambridge University Press





*Thanks  
for  
your  
attention*

For full thesis  
<https://ifro.ku.dk/english/research/projects/ax/>