

The Social Power of Wind

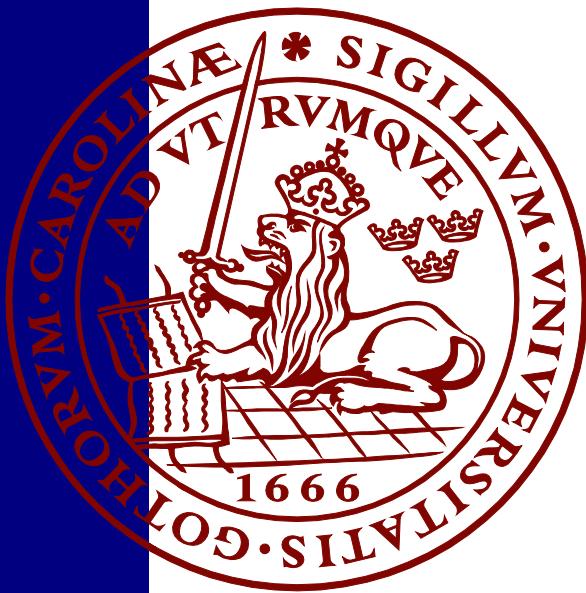
The Role of Participation and Social Entrepreneurship in
Overcoming Barriers for Community Wind Farm Development

Lessons from the Ixtepec Community Wind Farm Project in
Mexico

Julia Hoffmann

Master Thesis Series in Environmental Studies and Sustainability Science,
No 2012:024

A thesis submitted in partial fulfillment of the requirements of Lund University
International Master's Programme in Environmental Studies and Sustainability Science
(30hp/credits)



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Submitted May 15, 2012

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ABSTRACT

The global transition to renewable energies is increasingly driven by wind energy, which now experiences its biggest growth in the emerging and developing countries. The development of large-scale wind farms raises concerns over often neglected territorial and social dimensions of wind energy development – important issues in areas like the Isthmus of Tehuantepec, southern Mexico, where indigenous communities often still practice collective land ownership. As a response to the perceived lack of local communities' participation in both the process and benefit distribution of wind energy development in this region, the indigenous governance body of the city of Ixtepec approved a proposal to pursue a community wind farm in cooperation with the Yansa Group (comprised of a foundation and a social enterprise) in 2011. This thesis investigates how the approaches of participation and social entrepreneurship could enable the community of Ixtepec to overcome the barriers that have impeded community wind farm development in Mexico so far. A case study design with qualitative research methods is used to explore and analyse the Ixtepec community wind farm model. Having a constructivist understanding of social phenomena this involves the analysis of power relations shaped and constructed by the project model. The analysis shows that a diverse participatory approach focusing on the empowerment of marginalised sections of Ixtepec's community as well as the overall community development is carried out. The analysis suggests that there are at least three dimensions of social entrepreneurship (organisational, individual and collective) that enable the Ixtepec community to overcome financial, capacity-related and legal barriers related to community wind farm development, as well as to ensure their ownership and control over their territories. While the creation of new organisational participatory structures could increase the actors' capacity for collective action and shape their own development, this could also lead to new forms of marginalisation or mask internal unequal power relations. This research could provide important lessons for how the transition to renewable energies could be designed in a socially-just manner.

Key words: community renewable energy, community wind energy, Isthmus of Tehuantepec, participation, power, social entrepreneurship, social enterprise

Abstract Word Count: 327

Total Word Count: 20512*

* excludes abstract, figures, tables, references, footnotes and appendices

ACKNOWLEDGEMENT

Thanks to Karin for being a very flexible supervisor and always seeing things positively.

Thanks to the 'Studienstiftung des Deutschen Volkes' for their generous support that allowed me to go to Mexico to conduct the field work, as well as to the 'Deutscher Akademischer Auslandsdienst' (DAAD) which supported me financially throughout this two year's Master programme.

Thanks to Sergio and Chelsea from Yansa who welcomed me to Yansa and Ixtepec. I have learned a lot from you about the community wind farm model, but also about the importance of passion and vision in one's work.

Thanks to Dalia and Vicente for being such a great (host) family in Ixtepec, and helping me in all aspects of my work and even beyond that.

Thanks to all the other people in Ixtepec that I met, interviewed and worked with. I will never forget your kindness.

Thanks to Brieg for giving me peace, love and support in times I was struggling with this thesis, for making me laugh and realize that there is a life 'beyond' the thesis.

Thanks to Emily for giving really constructive feedback about which I am very, very grateful.

Thanks to Anja, Helena and Jacob for your last-minute support.

Thanks to Iryna for giving me moral support and shelter during the last weeks.

Thanks to my family, especially to my grandparents who always believed in me. Unfortunately, I cannot tell my grandpa any more that I indeed finished this thesis.

Thanks to all the LUMES teachers, who have opened my horizon and changed my way of thinking so many times.

Finally, thanks to all my LUMES classmates who have made this Master programme the best time of my life!

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ABBREVIATIONS AND ACRONYMS

APA	Agricultural Producers Association
CIC	Community Interest Company
CFE	Comisión Federal de Electricidad (Federal Electricity Commission)
CRE	Community renewable energy/energies
CRO	Cattle Raisers Organisation
CWF	Community wind farm
CWFP	Community wind farm project
GW	Gigawatt
MW	Megawatt
NAFTA	North American Free Trade Agreement
NGO	Non-governmental organization
PRI	Partido Revolucionario Institucional (Institutional Revolutionary Party)
RE	Renewable energy/energies
RES	Renewable energy system
SE	Social entrepreneurship
SEO	Social enterprise organisation

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The Isthmus of Tehuantepec is like the global laboratory of how the energy transition is going to turn out for the historically oppressed communities in the best wind resource areas in developing countries, but also in other countries as the USA or Canada. Because here the wind is so fantastic that the transition is already driven by the market.

The same things that are now happening in the Isthmus, will in the future happen in many places around the world. And then, if we are not ready to provide an alternative, the same thing will happen: communities will get screwed over, there will be huge conflicts, there will be people dying, etc.

So it is really important to develop an alternative and develop it here, on the spot, in the real conditions that we are going to find in many other places around the world.

(Sergio Oceransky, founder and CEO of the Yansa Group,
in an interview on 04.03.2012)

1 INTRODUCTION

Interconnected human-environmental systems are increasingly put under pressure. Concerns about "energy security, resource depletion, climate change, new technologies, and environmentally conscious consumers (not necessarily in this order)" (Sadorsky, 2011:1092) are macro drivers for a shift towards an increasing use of renewable energies (RE) worldwide. The IPCC-WGIII (2007:n.p.) defines RE as energy which "is obtained from the continuing or repetitive currents of energy occurring in the natural environment and includes non-carbon¹ technologies such as solar energy, hydro-power, wind, tide and waves and geothermal heat, as well as carbon-neutral technologies such as biomass." Among the 'non-carbon' RE sources, wind energy belongs to one of the fastest developing ones (DTU, 2010:5) due to continuous improvements in technology and falling production costs, which have made wind energy more and more competitive with other sources of electricity generation (Sahin, 2004:503; U.S. Department of Energy, 2008:23). Global installed wind energy capacity has increased by 20% on average since 1998 and stands now at 238 Gigawatt (GW) (GWEC, 2012:10) (fig. 1), which represents about 2.5% of the global electricity consumption (WWEA, 2011:5). Wind energy's growth is expected to continue in the future in developed, developing, but foremost in the emerging countries (EIA, 2011a; GWEC, 2012).

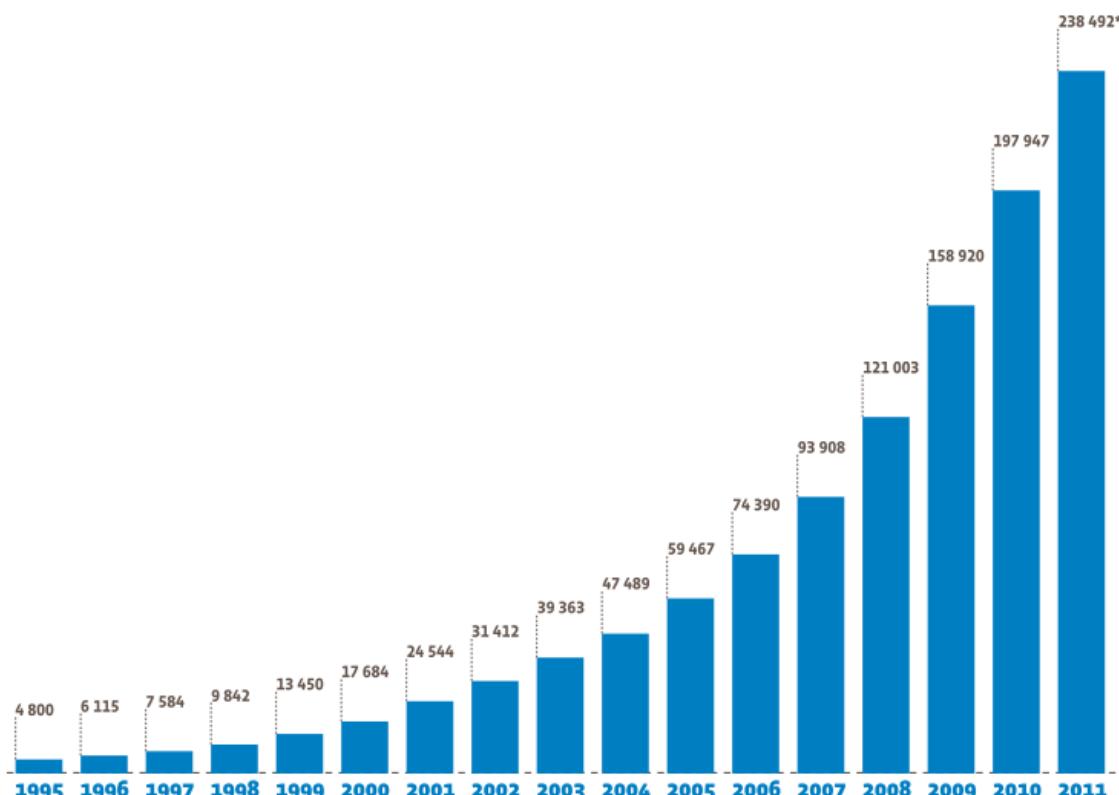


Figure 1. Global Installed Wind Energy Capacity (1995 to 2011, in MW)
(Source: EurObserv'ER, 2012:83)

Even though wind farms are increasingly installed offshore (Sun et al., 2012:298),

¹ The terms 'non-' or 'zero'-carbon usually refer to energy technologies, processes or services that cause zero net (carbon) emissions (Guardian, 2007:n.p.). Nevertheless, this term is somewhat biased, since it is likely that CO₂ or other greenhouse gases are emitted at least at some stage of the energy system's life-cycle, e.g. during production, transport or as indirect effect through land use change.

wind energy is still a largely land-based technology and can reach large-scale dimensions. For example, one of the world's largest wind farm at this time, the Roscoe Wind Complex in Texas, covers an area of 190km² (CBS News, 2010:n.p.), which is about the same size as Stockholm's city area (Statistics Sweden, 2012:n.p.). Wind energy development thus also has an important territorial dimension that can have social and environmental effects that go beyond the well-researched NIMBY² effect (Warren et al., 2005:857). For example, the land where these wind farms are built can be privately or publicly owned, be in the vicinity of settlements or be of cultural, economic or personal importance for people directly or indirectly using that area, which means that the stakeholders involved may have conflicting interests about the usage of the land. This could cause problems especially in the developing and emerging countries where the necessary laws and civil society to protect the land rights of often marginalised territory owners are likely to be weakly developed (Butcher, 2010).

The setting for this thesis, the Isthmus³ of Tehuantepec ('the Isthmus') (fig. 2) in the southern state of Oaxaca where the Gulf of Mexico and the Pacific Ocean come closest to each other, has recently experienced serious conflicts because of this social and territorial dimension of wind energy development. It is said that the Isthmus belongs to the regions with "greatest wind energy potential in the world" (Vance, 2012:n.p.) thanks to its constant and heavy winds. Wind energy development in the Isthmus can therefore be economically profitable even without the availability of subsidies and has consequently raised national and international investment interests (GWEC, 2011:n.p.), but has also caused serious social conflicts due to its territorial dimension.

Large private wind farm developers are at the forefront of wind energy development in the Isthmus and in Mexico in general (Oceransky, n.d.), attracted by a fiscal and regulatory environment that does not provide direct governmental subsidies as offered in many countries in Europe or USA (e.g. feed-in tariffs, tax reductions) (e.g. Bolinger, 2001), but favours private, large-scale wind farms through other more indirect measures (GWEC, 2012:42).⁴ This has increasingly caused serious conflicts and public opposition among the local indigenous communities on whose territories the wind farms have been, or are supposed to be built. These communities often still practice collective ownership and governance over their territories and accuse the mostly foreign wind farm developers⁵ of top-down decision-making, violation of land rights, disrespect to indigenous decision-making structures and unfair distribution of benefits accrued by wind power generation (Castillo Jara, 2011; Oceransky, 2012a; Vance, 2012a). Unequal distribution of bargaining power between the parties and lack of participation of the local communities in decision-making are said to be the main reason for the unrest in the region (Oceransky, n.d.). Due to space limitations of this thesis a more detailed description of the conflict is provided in Appendix 1.2.

² NIMBY ('not in my backyard') refers to individuals or communities that favour wind power as an abstract concept but oppose wind power projects in their area (Warren et al., 2005, p. 857).

³ An isthmus is a „narrow strip of land connecting two large land areas otherwise separated by the sea“ (Encyclopædia Britannica, 2012a:n.p.).

⁴ An analysis of Mexico's energy mix, and renewable energy-related legislation is presented in Appendix 1.1.

⁵ Wind farm developers are companies which are responsible for the planning and construction of a wind farm, but also for its operation afterwards.



Figure 2. The Isthmus of Tehuantepec and the City of Ixtepec (adapted from www.travelbymexico.com)

Jicha et al. (2011:230) argue that local communities worldwide have increasingly become more vulnerable to external forces, since globalisation and neoliberal economic policies have left them without support for their local development. Market-driven wind farm development could therefore become another pressure to local communities, and make 'land grab'⁶ - a term commonly associated with biofuels (e.g. Zoomers, 2010) - become a concern within the wind sector as well (Vance, 2012a:n.p.).

To enhance the capacity of local citizens to mobilize resources and act collectively could therefore be a strategy for local communities to maintain their problem-solving capacity (Jicha et al. 2011:230). A community-based renewable energy approach, which seeks for forms of public participation in project development and the distribution of local and collective benefits (Walker & Devine-Wright, 2008:71-72), could thus be a way to strengthen the communities' capacity for collective action, while at the same time public resistance and social tensions in wind energy development could be reduced (Warren & Mcfadyen, 2008:204). But whereas community-based RE models have been one of the driving forces for wind energy development in Europe (e.g. in the case of Denmark or Germany) (Bolinger, 2001:1), this model is not yet much practised in the developing or emerging countries where the enabling legal and structural environment for this is missing. According to Walker (2008:4402-4403) communities around the world, but especially from low-income countries can hardly become owners and beneficiaries

⁶ “Land grab’ generally refers to large-scale, cross-border land deals or transactions that are carried out by transnational corporations or initiated by foreign governments”(Zoomers, 2010:429).

of renewable energy projects, because they lack the necessary financial resources as well as long-term capacity to deal with the financial, managerial and legal complexity of such projects.

Accordingly, this thesis presents and analyses the case of the city of Ixtepec, located in the Isthmus of Tehuantepec, where Latin America's first community wind farm is about to be developed with the help and support of the Yansa Group (consisting of a foundation and a Community Interest Company). Community participation is put at the centre of the Ixtepec project focus: the community shall be involved in decision-making and sharing of the financial benefits generated from the sale of electricity to induce sustainable local impact, "while ensuring that the communities retain control over their resources" (Yansa, 2012a:n.p.). The project approach taken by Yansa and the community explicitly strives to be different from the profit-driven and top-down wind energy model experienced in the region.

1.1 RESEARCH AIM AND QUESTIONS

Since the Ixtepec community wind farm project (CWFP) is still in its initial stages - i.e. the wind farm is not even built yet - the possibilities for analysis are limited. Nevertheless, this is also a good opportunity to analyse what has been done so far - not in a post-project implementation evaluation as it is often practised, but during the project's initial phase when constructive criticism and suggestions can be helpful for those involved in the project.

With my research I aim to explore whether the approach taken by the Yansa Group and the community of Ixtepec could be able to overcome the unequal relationships of power that have marked the wind energy development in the Isthmus so far. My hypothesis is that there are two major sets of barriers that have caused the unequal distribution of power:

- (1) lack of possibilities for participation of the community during the process and distribution of benefits generated by the wind farms
- (2) lack of financial, legal and capacity-related resources to engage in community-owned wind farm development

It is thus my hypothesis that the organisational model (which I assume to be a social enterprise model) as well as the participatory approach pursued by Yansa are the two enabling factors to overcome these barriers.

Hence, my research questions are:

- (1) What possibilities for community participation are offered by the CWFP?
- (2) How could the social entrepreneurial model help to overcome the financial, legal, and capacity-related barriers that have prevented the local communities' partnership in wind energy development in the past?
- (3) How can the organisational and participatory approach shape or construct new relations of power?

In the next section I will present the methodology chosen to obtain the necessary data to answer these questions.

1.2 METHODOLOGY

This research was conducted on the base of an in-depth case study using a range of qualitative research techniques, which will be explained in detail throughout the following sections.

1.2.1 Ontological and Epistemological Considerations

Being a researcher or not, we - consciously or unconsciously - assume and interpret reasons for how the world is as we perceive it. A social scientist should make these prior assumptions and interpretations related to his or her empirical work explicit (Ankersborg, 2002 as cited in Mikkelsen, 2005:157). The following section therefore describes my underlying ontology and epistemology.

Ontology is concerned with the question whether „social entities have a reality external to social actors“ or rather are social constructions (Bryman, 2008:18). Epistemology is the study of the nature, origin, and limits of human knowledge (Encyclopædia Britannica, 2012b:n.p.), and is concerned with "what is (or should be) regarded as acceptable knowledge in a discipline" (Bryman, 2008:13).

Regarding ontology, I take a constructivist standpoint, and therefore consider "social phenomena and their meanings [as] ... continually accomplished by social actors ... [and as] not only produced through social interaction but ... in a constant state of revision" (Bryman, 2008:19). The case study and context of this thesis provide many examples of how social relations and interaction have continuously shaped social phenomena and knowledge in Mexico. This relates to the various phases of marginalisation of indigenous communities throughout Mexico's history (e.g. Hamnett, 1999; Vargas-Rosas, 2007), as well as the current opposition against the large-scale, private wind energy development among people in the Isthmus of Tehuantepec, or the role that power relations play in participatory development approaches. A standpoint of constructivism is useful for the analysis of the case presented in this thesis, because I am not only interested in identifying the structures and underlying reasons for social action, but also to change them, "so that inequalities and injustices may be counteracted" (Mikkelsen, 20005:135). I will use the concept of power relations as a lens through which to critically analyse the social context which is shaping marginalisation and conflict in the Isthmus, as well as the micro-cosmos of participation in the Ixtepec CWFP.

Regarding epistemology, I see knowledge as "a product of society and power relations within society" (Dickens, 2003:98). In the case presented in this thesis I see knowledge as embedded in and created through social structures that are constructed on the base of unequal power relations (Kothari, 2001:141).

1.2.2 Research Strategy and Methods

Both the focus and structure of this thesis have mainly been motivated by the case study itself. The CWFP has raised urgent issues about the role, importance and models of community participation throughout the transition to RE. It has thus become my goal to let these issues undergo an academic analysis and critique, as well as to raise awareness on important implications of the the transition to RE.

In line with my ontological and epistemological standpoints as well as my focus on power relations I will use a qualitative research strategy to answer my research questions. The research method used for this thesis is a case study, which according to Bryman (2008:52) "entails the detailed and intensive analysis of a single case". The unit of analysis is the Ixtepec community wind farm project, which is on its way to become Latin America's first community wind farm. The project might represent a "critical case" (Mikkelsen, 2005:92) of strategic importance to a wider, general problem: how to design the transition to renewable energies in a socially just manner. I regard the knowledge retrieved from this project therefore as valuable, since it can bring important lessons for further application of the community model in the region or even in the world. Nevertheless, I agree with Yin (2009:43) who warns from generalizing knowledge from one case to other settings, since the findings are often very context-specific. On the other hand, case studies usually do not intend to be generalizable in terms of empirical data, but to theory (Bryman, 2008:391). My thesis reflects Bryman's opinion and therefore focuses much more on the rich, in-depth description (Kvale, 2009:67) of the case study's context and interpretation of the data using the theoretical concepts of power, participation, and social entrepreneurship. I consider the relationship between my findings and theory as iterative, which according to Bryman (2008:12) involves a "weaving back and forth" between the findings and theory. On the one hand I am using the theoretical concepts to make sense of my observations and data, and on the other hand I am also generating new hypotheses of how these combined concepts work in the specific case of the Ixtepec CWFP.

1.2.3 Research Techniques and Tools

In order to realize my research I spent six weeks (from 22th of January till 6th of March 2012) in Ixtepec as part of the Yansa⁷ team, primarily supporting the Yansa Foundation in its work, but also engaging in work that focused solely on my thesis research, e.g. engaging in *participant observation*⁸ or conducting *interviews* for this thesis. Nevertheless, most of the times both type of activities were deeply interwoven and inseparable, which is why I treat both data sources as equally important for this thesis. Some of the data collected from this range of activities I have used directly within this thesis, e.g. quotes from interviews. Other data I have used more indirectly, e.g. impressions and observation of the relations between project participants, in order to analyse the power relations between them.

My work for Yansa focused on the following three kinds of activities: (1) conducting research on the community's needs and priorities of development; (2) developing project indicators and determining baseline data of the current community development; and (3) awareness raising and promotion for the project.

⁷ 'Yansa' refers to The Yansa Group – consisting of both a foundation and a Community Interest Company (see chapter 2).

⁸ Participant observation is "(r)esearch in which the researcher immerses him- or herself in a social setting for an extended period of time, observing behaviour, listening to what is said in conversations both between other and with the fieldworker, and asking questions" (Bryman, 2008:697).

Regarding the first set of activities I have prepared a *survey* (with both closed and open-ended questions) on the community needs and priorities, which 28 people filled in.⁹ For both needs assessment and the purpose of project promotion, I have (co-) facilitated 15 *focus groups* (Bryman, 2008:694) with approximately 291 participants in total.

Eight of these focus groups were organised in the form of neighbourhood meetings. For these I was usually accompanied by either Vicente Vásquez, a very active local supporter of the CWFP, and/or Samuel Herculano, who works for the Mexican NGO Sustentavía¹⁰. Two focus groups were conducted in the villages of Carresquedo and Zapote, which belong to the Ixtepec municipality, with 7 and 11 people participants respectively. Another five focus groups were facilitated in front of local organisations. To get to know the bodies of participation created by Yansa, I attended two meetings of the organisational committee, one youth forum and two women's forums, out of which I partly led the first one. Appendix 1.3 includes a detailed overview on where, with whom and when the focus groups and survey were conducted.

Further, I conducted 21 *semi-structured interviews* (see appendix 1.4), most of them with the help of Samuel Herculano as second researcher. These interviews had the purpose of getting to know more about the socio-economic context of Ixtepec, the interviewees' position towards the community wind farm, and the interviewees' view on needs and priorities of the community. For a deeper understanding of the organisational structure and work of the Yansa Group, I also conducted an interview with Chelsea Mozen, director of the Yansa Foundation and one in-depth interview with Sergio Oceransky, founder and CEO of the Yansa Group. Appendices 1.5. and 1.6 include the transcribed interviews with them.

To reduce the possibility of subjectivity influencing my research findings, I have used *triangulation* of data, investigator and methodology as explained by Mikkelsen (2005:96-97). I hope to have achieved triangulation of data and methodology by drawing on a vast amount of data, accumulated through different techniques (interviews, survey, focus groups and participant observation) and data sources, e.g. with people from different socio-economic backgrounds and with interests in the CWFP (in favour and against the project). I have also been accompanied by another researcher most of the time, which contributes to triangulation of investigator.

To create the theoretical framework for this thesis I have conducted an extensive *literature review* on the concepts of power, participation, and social entrepreneurship. To complement my local research I have also drawn on literature and online resources on the Isthmus of Tehuantepec, the city of Ixtepec and (community) RE in general.

⁹ The survey proved to be a less helpful and appropriate tool for the investigation of community needs and priorities than expected, since the ambience, particularly in the more rural or informal environments, did not allow to make use of the 4-pages long survey. We then shifted to focus groups as primary source for data collection and interaction with the community.

¹⁰ Sustentavia works with sustainable enterprises and development (www.sustentavia.com) and cooperates with Yansa on the Ixtepec CWFP on issues of community development.

1.3 RESEARCH LIMITATIONS

As any other study my thesis is subject to critique and limitations regarding the quality, rigour and potential of my research process and findings (Mason, 1996:21), out of which I picked three major points. Nevertheless, I agree with Mikkelsen's (2005:195) standpoint that qualitative researchers in the development field should rather be transparent about their values and methodology than striving for "unobtainable objectivity".

First, my affiliation with the Yansa Group can have created a bias, since interviewees and focus group participants not seldom regarded and called me the 'foreign women' or 'representative' of the 'company Yansa'. This shows the mistrust that people in the Isthmus carry towards outsiders, foreigners and private companies, especially towards those representing the wind energy sector.

Second, being white, European and a woman illustrates my role as outsider to the community, which is placed in a region of Mexico where indigenous communities have experienced colonisation and marginalisation throughout history and a machismo culture still prevails. The different cultural setting, its underlying norms and customs, as well as deficiencies in capturing the Spanish language can therefore have led to misinterpretations or misunderstandings during interviews, discussions and meetings, or have created barriers to access 'true' information (Kvale, 2009:256).

Third, I also do not exclude myself from the general critique on participation and the facilitator's role in affecting local power dynamics, which I will analyse and discuss in chapters 5, 6 and 7. My role as facilitator using participatory tools to access information, while at the same time analysing the very process is clearly biased, although it has also brought insights into 'how things are done here'.

1.4 THESIS STRUCTURE

This thesis is organized in eight chapters. After this introduction, Chapter 2 introduces the Ixtepec community wind farm project, including a description of the organisational structure of the project. Chapter 3 and 4 present and discuss the theoretical frameworks for this thesis: power and participation as well as social entrepreneurship. The first part of the analysis and discussion section are put together in chapter 5 and explore how participation is realized in the CWFP. Chapter 6 continues with the analysis and discussion of the social entrepreneurial model, before in chapter 7 a final discussion is held on the implications of the research findings. Chapter 8 concludes the thesis and points out areas for further research.

2 THE CASE STUDY: IXTEPEC, THE YANSA GROUP, AND THE COMMUNITY WIND FARM PROJECT

To understand why Latin America's first community wind farm will most likely be developed in the vicinity of the city of Ixtepec, in the Isthmus of Tehuantepec, it is important to keep in mind the recent conflicts between the local communities and private, mostly foreign, wind farm developers that were mentioned in the introduction and are described in further detail in appendix 1.2. In short, it is a conflict about top-down decision-making, violation of land rights, disrespect to indigenous decision-making structures and unfair distribution of benefits accrued by wind power generation (Castillo Jara, 2011; Oceransky, 2012a; Vance, 2012a).

Furthermore it is important to know the local context of Ixtepec, which I will describe in the first part of this chapter – putting focus on the socio-economic dimensions of Ixtepec's development and the special role of the local peasant organisations. Both are important variables that will determine the process and outcome of the CWFP.

2.1 AN INTRODUCTION TO IXTEPEC

The city of Ixtepec is located in the state of Oaxaca in Mexico, in the south of the Isthmus of Tehuantepec (see fig. 2). According to the last national census (Inegi, 2010), the city has a population of 26,450 inhabitants. It is a community with roots in Zapoteca indigenous culture, although the importance of that culture is eroding (Nuestro México, 2005).

From rural to urban

While Ixtepec was a rural community based on subsistence farming throughout most of the 19th century, since the beginning of the 20th century its commerce and services have gained more and more in importance (SIAPA, 2009:n.p.). Today, commerce is Ixtepec's strongest economic sector. 65% of Ixtepec's economically active and working population find work in the tertiary sector (Inegi, 2000¹¹ as cited in Nuestro México, 2005). 23% of employed people work in the secondary sector, although there basically exists no producing industry in Ixtepec (SIAPA, 2009). I was told in interviews with the municipality that the principal employers in Ixtepec are the local subsidiaries of state companies such as CFE or the about 55km distant refinery of Pemex (Mexico's state-owned petroleum company) in the city of Salina Cruz, as well as the military base and air base in Ixtepec, which employ and create further jobs. Only 10% of the economically active population still find employment or a living in the primary sector (Inegi, 2000 as cited in Nuestro México, 2005).

There exists no official data on unemployment numbers of Ixtepec, but in interviews I was told that especially young people do not find jobs in Ixtepec after finishing their education. The emigration of young people to other cities in the region or throughout the country, has become normal.

¹¹ Although taken from 2000, these data can still be useful as an indicator, since it can be assumed that agricultural activities have not increased, but rather decreased since then.

The peasant organisations

Although the importance of Ixtepec's agricultural sector as source of livelihood has decreased, the peasant organisational bodies of Ixtepec are still functioning. The three major ones are the (1) Commune¹², (2) Agricultural Producers Association (APA), and (2) Cattle Raisers Association (CRA).¹³ The Commune is a legal figure recognized within the Mexican constitution and National Agrarian Code, for indigenous communities that want to maintain their communal ownership and management of their land and resources (Yansa, 2012a:n.p.). It gives the possibility to those communities that adopt the law to combine individual land use with collective property. Ixtepec has adopted this law and the Commune was consequently founded in the 1940s (Baldomero Rosado, interview). It owns about 30.000 hectares of land within the administrative borders of Ixtepec. Decisions on changes in territory usage right have to be decided on by the assembly of the Commune. Therefore the organisation plays a major role in the CWFP development, since the wind farm is supposed to be built on Ixtepec land, hence communally owned territories.

According to Baldomero Rosado, the current president of the Commune, the organisation has 871 members, which for its majority are land owners¹⁴ of either irrigated or rain-fed land. It is not possible to be elected a member of the Commune, neither does the fact to own land make a farmer or non-farmer automatically a member and hence eligible to vote during member meetings. If a member dies, his or her membership can be passed on to his or her wife or husband, then to one of their children – but only if they do the necessary formalities, otherwise he or she becomes a 'dead member'. In fact about 300 members of the Commune are already dead, but still count as 'members'. According to Vicente Vásquez, a member of the Commune as well as one of the local initiators of the CWFP, the – alive – members of the Commune are on average male and over 70 years old. Further, only 10 to 15 members are women; and youth (below 30 years) is not represented at all within the Commune.

According to interviews with farmers and leaders of the farmers' organisations, the productivity of the agricultural sector is low. Although most farmers and cattle raisers receive support through special government programs, these amounts are too little to make a living possible from agriculture only. Being a farmer has become unattractive especially among young people, who, equipped with education and a different world view, strive for distinct and 'better' opportunities than subsistence farming. But it is not only the agricultural sector per se whose importance is decreasing, also the traditional governing bodies themselves are diminishing in power, due to the city's transformation into a second and tertiary sector based economy. Appendix 2.2 provides further information about the socio-economic situation of Ixtepec.

¹² In this thesis I will refer to 'Commune' as the legal indigenous governance body, and to 'community' as an administratively defined location, e.g. the city of Ixtepec.

¹³ APA and CRA are introduced in appendix 2.1, along with a more in-depth analysis of the agricultural sector of Ixtepec.

¹⁴ Although strictly speaking farmers working on communal land do not actually 'own' these territories (but the Commune), I will nevertheless use the verb 'own' when talking about land usage by farmers, since in practice they often possess and exercise the same rights as land owners do.

According to the respondents of my surveys, interviews and focus groups, the most pressing problems of Ixtepec in terms of social development are the community's lack of employment sources (especially for young people), support for the agricultural sector as well as other vulnerable social sectors (e.g. the elderly), the unequal access and low quality of both education and healthcare services, necessary infrastructure measures, environmental conservation and the erosion of the local Zapoteco culture. The results of a preliminary needs assessment with the Ixtepec community are summarized in Appendix 2.3.

2.2 THE 'BIRTH' OF THE IXTEPEC COMMUNITY WIND FARM PROJECT

The Ixtepec CWFP was suggested on the grounds of recognizing the community's need for social and economic development, as well as facing the conflicts between other communities in the region and wind farm developers. A small group of about 12 to 14 Commune members came up with the idea of a community wind farm (CWF) for Ixtepec (Vicente Vásquez, interview). By coincidence it came to be that this sub-group of Commune members met Sergio Oceransky, one of the founders of the Yansa Group.

The Yansa Group ('Yansa') was founded in May 2008 with the aim to cooperate with rural and indigenous communities to develop community wind farms – adopting the European community model to Latin America (Oceransky, 2012b). The group has two arms: (1) the Yansa Foundation, a 501(c)(3) registered non-profit organization based in the USA, which promotes wind energy projects in cooperation with indigenous, fisher folk, and peasant communities in order to facilitate their collective welfare and social advancement; and (2) the Yansa Community Interest Company¹⁵ (CIC), registered in the UK, which provides the managerial, financial and technical capacity to the communities in order to realize the community wind farms, e.g. project planning, obtaining contracts to secure project financing, or the design of the wind farm (Yansa, 2012a).

The group of Commune members and Sergio Oceransky (representing Yansa) decided to work together seeking to realize the idea of a community wind farm on Ixtepec territory. The former consequently prepared a proposal to include a CWF within the Commune's new territory plan, which was accepted by the assembly of the Commune in the beginning of 2009. Two other extraordinary assemblies in 2009 and 2010 followed in which the CWFP was discussed and consequently approved unanimously (Vicente Vásquez, interview).

¹⁵ This special kind of social enterprise will be explained in section 2.3.2.

2.3 DESCRIPTION OF THE COMMUNITY WIND FARM PROJECT

2.3.1 Scale and Location

The Ixtepec CWFP shall comprise about 44 wind turbines of an approximately installed 100 MW capacity¹⁶ (Yansa, 2012b:1). The wind farm is supposed to be built in an area located north east of Ixtepec, about 4km at its minimal distance from the city's urban conglomeration. As can be seen from figure 3, this area is partly occupied by farming plots – in its majority for subsistence farming, but also for animal grazing, hunting or wood supply, and is home to about a handful people that still live in ranches in the area. Many parts of the area are, however, not used by people at all (Sergio Oceransky, interview). Farmers with land in this area either live in Ixtepec's urban areas or in the villages Zapote and Carresquedo, two municipal agencies which also belong to the municipality of Ixtepec and are located north of the planned wind farm location. The area where the wind turbines are planned to be built, encompasses about 1,000 hectares. The average wind speed in this area is about 8.5m/sec (Yansa, 2012b:1). This figure surpasses, for example, the 6m/sec average wind speed on Germany's north coast where most wind turbines are installed (BINE, n.d.). This illustrates the economic potentials to be reaped from wind energy in this region.



Figure 3. Location of the Future Community Wind Farm (adapted from Google)
(1: Planned area of the future wind farm; 2: City of Ixtepec)

¹⁶ 100 MW represent about 15% of the total electricity consumption of the state of Oaxaca (Yansa, 2012a). Other wind farms in the Isthmus show similar, but also smaller or bigger sizes (Oceransky, n.d.).

2.3.2 Ownership, funding and revenue-sharing

As argued in the introduction and appendix 1.1 there exists no enabling environment in Mexico for community RE projects: laws and regulations do not provide opportunities or support (GWEC, 2012:48) nor would many communities possess the financial, technical or managerial resources. Nevertheless, the Yansa Group – in agreement with the Commune of Ixtepec - has developed a model to enable the community to become owner and beneficiary of the future wind farm in Ixtepec. This model involves the creation and interaction with several organisations and enterprises, as visualized in figure 4 (a simplified version). The numbers attached to the arrows shall help the reader to follow through the following description of the CWFP's organisational model.¹⁷

- (1) The Commune - the official owner of the land where the wind farm shall be built - will sign a contract with the community trust, and grant the land use (not ownership) to the community trust (which is not constituted yet).
- (2) The community trust will then sign a contract with the Yansa Ixtepec Community Interest Company (CIC) and lend the territory to that same CIC.
 - A Community Interest Company (CIC) is a special legal form of a limited liability company for people or organisations who want to conduct business with a social purpose or other activities directed towards community benefit (The Regulator of CICs, 2010:8-9). Due to its regulations it can use its assets and revenues only for social and community purposes, and not for the financial advantage of a limited group of people or its owner(s) solely.
- (3) The Yansa Ixtepec CIC will be a newly created company constituted by the Commune and the Yansa CIC (Oceransky, 2012a:n.p.). Neither Commune nor Yansa CIC will be owner, but only member of the CIC.
- (4) Before the wind farm can be constructed, the necessary financing has to be pursued. The total project costs of the CWFP are expected to be about 200 Million US\$ (Oceransky, 2012b:42). Similar to commercial wind farms the financing structure of the Ixtepec CWFP involves a mixture of loan finance (70-80% of the total financing needed) provided as debt by social or development bank(s), as well as finance through sub-ordinated debt (20-30%) provided by so-called 'impact investors'¹⁸. This type of investors provides finance because they seek "social, or social as well as economic, returns" (The Open University, n.d.), not expecting the same high return than from commercial investments. Through this financing structure it is avoided that the investors become owners of the wind farm – as it is usual in commercial wind farm projects. The loan is not seen as a 'buy-in' to the wind farm as a shareholder or owner, but as a credit, which will be paid back at (desirably) low interest rates, e.g. an annual 6%¹⁹ throughout the following

¹⁷ Since the wind farm has not been constructed yet, I will use the future tense to describe the proposed organisational model. I describe the model to my best knowledge and after revision with Yansa. Nevertheless, future changes in some parts of the model are possible and foreseeable, as Yansa has not finished the final planning and discussions with their lawyers yet.

¹⁸ For an example of a socially responsible investor see 'Acumen Fund' (www.acumenfund.org).

¹⁹ 6% return on investment is a considerably low rate, when comparing to other similar early-stage, high-risk investments, which sometimes expect returns on investment as high as 20 or 30% (e.g. www.nuwireinvestor.com/articles/angel-investing-high-risk-potentially-high-return-53330.aspx)

16 years (Yansa, 2012b:1). No dividends will be paid out at any time.

- (5) The Yansa Ixtepec CIC will thus be the owner of the wind farm (including its productive assets such as turbines), but not be the owner of the land, which will still belong to the Commune.
- (6) The electricity generated from the wind turbines will be sold to Federal Electricity Commission (CFE)²⁰, the Mexican electricity utility, at a fixed price which is supposed to be agreed in a contract between Yansa Ixtepec CIC and CFE. However, until today no contract with CFE has been signed yet to guarantee the electricity sale to the national grid. To do so, the Yansa Ixtepec CIC first has to win a public call for tender over a still available 100MW spot at the Ixtepec submission station. Besides the need to comply with formal criteria in order to participate in this call for tender, the CIC also has to bid the lowest price for sale. If won and a contract between CFE and the Yansa Ixtepec CIC is signed, the contract will guarantee that CFE will buy electricity from the Ixtepec CWFP over a 20 years period at a fixed price. The next call for tender is expected to take place in October 2012 (Sergio Oceransky, personal communication). If the contract with CFE can be obtained, then constructions for the wind park might be able to start by the end of 2012 and be finished until 2014 (Oceransky, 2012b).
- (7) If the contract can be achieved, CFE will pay for the electricity generated by the wind farm.
- (8) After servicing debts and interest payments to banks (8a) and investors (8b), the wind farm, once constructed and operating, is expected to generate a total annual surplus of about 50 million Mexican Pesos (about 3.81 million US\$²¹) for the next 20 years (Oceransky, 2012b).²²
- (9) The surplus will be split into two equal parts.
 - (a) 50% will go to the Yansa Group with the aim to promote and facilitate the development of community wind farms in other regions or countries. With this approach Yansa can draw on a continuous revenue stream for its work. To reduce risks²³ for the Commune and Yansa in case of default or insolvency of the Yansa Ixtepec CIC, the money will first be pooled in a guarantee trust (Sergio Oceransky and Chelsea Mozen, interviews). The guarantee trust will reduce in size the higher the percentage of debt that has already been repaid to the banks.
 - (b) The other 50% will go into the community trust that will be responsible to manage and distribute the approximately 25 million Pesos annually (about 1,9 million US\$) (Oceransky, 2012b).
- (10) The 50% share for the community is split one more time. The owners of land where the wind farm will be constructed will receive direct payments

²⁰ CFE (Federal Electricity Commission) is a state-owned company with ownership over electricity generation, transmission, transformation, distribution and supply of electricity in Mexico (SENER, 2010:n.p.).

²¹ Exchange rate as of 25.04.2012: 1 Mexican Peso = 0.0762 US \$ (Source: www.xe.com/ucc/)

²² However, this amount can increase or decrease depending on factors such as wind speed, technical conditions, the electricity price fixed within the contract with CFE and the interest rates agreed on with banks and investors (Oceransky, 2012b).

²³ e.g. change in ownership of the wind farm or territories

to compensate for the permanent or temporary damages or changes to their land. The rest of the money is supposed to be invested in community development by the community trust and thus benefit a larger share of the community.

- (11) The composition of the community trust has not been decided yet, but according to an existing draft by Yansa it shall encompass the peasant organisations introduced in section 2.1, as well as the youth and women forums, which will be introduced in section 2.3.
- (12) The assemblies and members of these bodies shall send representatives to a technical committee, which will receive and discuss proposals (handed in by the community trust's members and the whole community) how to spend and invest the money in projects or assets that will benefit the community. The committee's space for decision-making will be framed by the by-laws that include social and environmental objectives and criteria for what purpose and under which conditions the money can be used. These objectives and criteria are based on the needs and priorities of the community which were assessed in a participative community consultation process. This shall make sure that arbitrary or one-sided decision-making and benefit distribution is avoided. Yansa will also be present in the committee, but will only have restricted rights to intervene in the process (Oceransky, 2012b; Yansa, 2012a).
- (13) The role of the Yansa Foundation is to consult and support the community process (13a), especially in its initial phases (Chelsea Mozen, interview), but also to ensure that the community trust's decisions of how to use the financial resources on hand complies with the trust's objectives and by-laws and fraud and kinship business are avoided (13b).

Since until today the necessary contract with CFE has not been signed yet, other preparative work such as wind resource assessment, technical and spatial planning for the wind farm, and environmental permitting and studies have been undertaken (Yansa, 2012a). Community consulting is one of these activities and will be described in the next section.

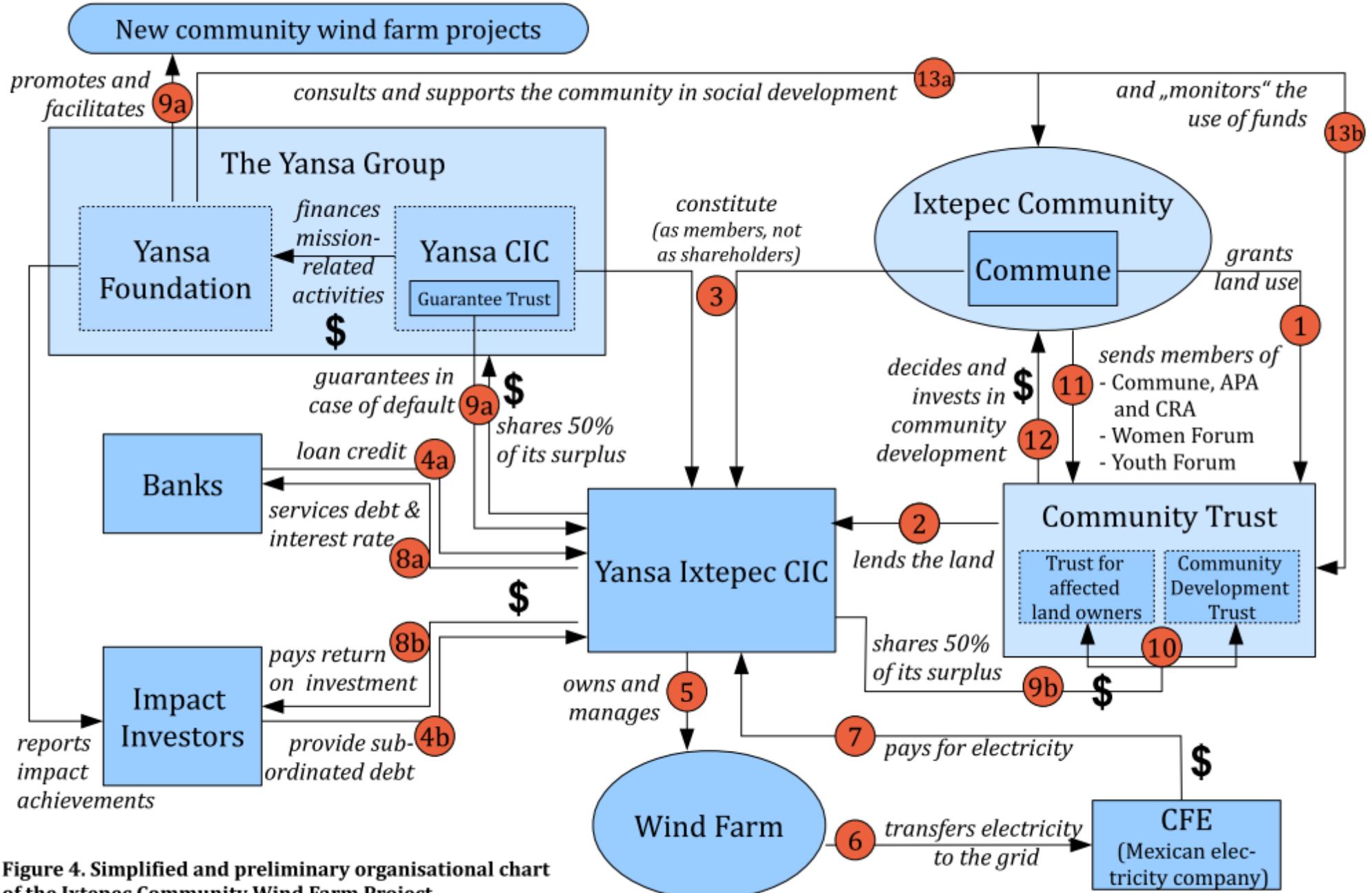


Figure 4. Simplified and preliminary organisational chart of the Ixtepec Community Wind Farm Project

* This chart represents only a simplified visualization of the actual planned organisational structure that has been simplified to facilitate the understanding of the reader. Further, the final legal structuring and registration of the necessary organisational bodies is still under discussion and construction.

2.3.3 The Participatory Approach

It is an inherent characteristic of community RE projects to strive for some form of public participation during the process development and/or the distribution of collective benefits (Walker & Devine-Wright, 2008:498). The following quote from Yansa illustrates the importance of the Ixtepec community process and the variety of different activities and purposes involved (as will be analysed in section 5.1).

Community involvement in Yansa projects is absolutely essential and ensures their fundamental economic, cultural, environmental and political rights. Collective community participation is manifested in the design, implementation, monitoring and evaluation of all projects. (Yansa, 2012a:n.p.)

Since the Commune does not represent a fair share of women or youth in its structures (see section 2.1), it was deemed necessary by Yansa to create a new set of participatory bodies, so that women and youth would get the chance to participate in the decision on how to use the revenues generated from the wind farm. In December 2011 both a women's forum and a youth forum were consequently founded with the goal to later on represent the women's and youth's voice within the community trust. Further an organisational committee was created to coordinate volunteering work better among those committed to the project. During the analysis and discussion section in chapter 5 the role of these organisations will be discussed.

2.3.4 Expected Impact

Community renewable energy projects like the Ixtepec CWFP are expected to bring about a variety of economic, social and environmental benefits to the local community where these projects are developed (Walker, 2008; Walker et al., 2010). Yansa's mission is to "foster community development and environmental sustainability ensuring that the transition to renewable energy is equitable, safe and just" (Yansa, 2012a:n.p.). For the local level this means that Yansa hopes to revive the agricultural sector and to provide opportunities to those who lack them (Sergio Oceransky, interview), e.g. through pension schemes for retired Commune members and their widows, or a scholarship fund for students to be able to attend university. The interviews and focus groups with the community have shown that the interviewees wish that the CWFP could provide means to overcome the socio-economic problems that were outlined in section 2.1 and respond to the community needs summarized in Appendix 2.3. Most people mentioned the creation of local employment opportunities as their highest priority so that the youth does not necessarily need to leave Ixtepec after graduating from high school or university.

As to the second part of Yansa's mission this means that one successful project could lead to the development of other community wind farm projects in different places. This would then contribute to the promotion of renewable energies in general and the community model in specific.

3 THEORETICAL FRAMEWORK I: (RELATIONS OF) POWER IN AND THROUGH PARTICIPATION

[T]heory helps the analyst to see the forest instead of just a single tree.
(Mikkelsen, 2005:156)

With this analogy Mikkelsen refers to how theory and concepts help “to connect a single study to the immense base of knowledge” (Mikkelsen, 2005:156) that exist within and beyond a certain discipline. The following chapter shall make the reader acquainted with the concept and frameworks of power and participation that I will use to analyse the participatory and organisational process applied in the Ixtepec CWFP. I will provide an overview of the diffuse and often arbitrary meanings that the concepts of 'power' and 'participation' are attached to, and discuss what role power relations can play in participation.

3.1 WHAT IS 'POWER'?

While omnipresent, the myriad of divergent and occasionally intangible forms in which power is realized makes it all but impossible to develop a universal definition for the term that is precise and measurable. (Landau, 2006:737)

Landau, writing for the Encyclopedia of Governance, points out the lack of consensus on how power can be defined, be put in a theory or be conceptualized in a framework. This ambiguity and variety of conceptions of power is, however, inherent to any social phenomenon, which according to my constructivist standpoint, is understood as socially constructed (Guzzini, 2005:507). In a constructivist understanding power can then be conceived as a “network of social boundaries that constrains and enables action for all actors” (Hayward, 1998:2), or in other words as “the ability of an actor (i.e., an individual or a group) to make other actors do (or suffer) something” (Saar, 2010:n.p.).

Social theorist Michel Foucault (cited in Gallagher's, 2008:n.p.) regards power not as something static that can be possessed (by someone powerful over someone less powerful or powerless), but as something that can rather be understood as being dynamic and expressed only through an action - not the mere capability to do so. Power would thus only be revealed when one person or entity exercises his or her capability of power towards at least one other person or entity (Gallagher, 2008:n.p.). It is thus the concept of 'relations of power' I will be using throughout this thesis.

Unequal relations of power can emerge through the “asymmetrical distribution of resources and risks” (Paulson et al., 2003:205), may they be of material, non-material, but physical, or intangible kind (Landau, 2006:n.p.). Marx and Engels (1848), for example, focused on differences in ownership over material resources to explain class struggles. But also values and identities can be a source for unequal power relations (Landau, 2006:n.p.). These unequal power relations then enable one side to dominate, influence or achieve a desired goal (Landau, 2006:n.p.) - an outcome we would commonly describe as 'having power' over someone or something.

Power can be expressed in its severest and most violent forms, but also in milder ways such as influence and guidance (Saar, 2010:n.p.). Power can also be exercised through ideological manipulation and discursive framing (Madibbo, 2009:n.p.), as well as through rational argumentation (Saar, 2010:n.p.).

While, for example, both liberal and Marxist models assume that those who execute power have at least a minimum consciousness of themselves doing so, power can also take diffuse and invisible forms, hence power can be taken for granted by those who are exercising it (Guzzini, 2005:508; Landau, 2006:n.p.), or actually be an unintended effect of complex social actions in the social world (Gallagher, 2008:n.p.). Power might thus have three different 'faces': visible, hidden and invisible (Veneklasen & Miller, 2002:n.p.).

Nevertheless, power relations do not necessarily have to result in domination, but can also lead to transformation (e.g. Wartenberg, 1990). This alternative model of power sees power not as outcome of unequal power relations, but created collectively through social relationships (e.g. Lukes, 2005; Wartenberg, 1990). According to this view, collective social action is then the source of 'empowerment', where power is seen "as a productive force that brings about rather than represses something", where power is understood as 'power to', rather than 'power over' (Saar, 2010:n.p.).

Power relations can be analysed at different scales, from the individual to institutional and global scale. Nevertheless, they cannot be seen independent from each other, but according to Foucault (cited in Gallagher, 2008:n.p.) as 'nested' within each other. This means that power is exercised at either small or large scale is influenced or made possible by relations of power exercised at other scales (Gallagher, 2008:n.p.).

This literature review has shown that power can take different, sometimes diffuse or hidden forms, located in interactions between actors at different scales. This is important to keep in mind for the analysis and discussion in chapters 5, 6 and 7. I will lay out how the concept of power has shaped the discussion on participation in development in the next sections, after first explaining how I understand 'participation'.

3.2 WHAT IS PARTICIPATION?

Development practitioners generally agree that participation is inevitable in order to get nearer to lasting development results or sustainability. Consequently most development agencies and NGOs today have incorporated a participatory approach in their strategies for development cooperation. But there is no consensus on what this implies.

(Mikkelsen, 2005:54-55)

One reason for the ambiguity of the term participation²⁴ that Mikkelsen describes, has to do with the different purposes that participation has been used and advocated for since the 1960s and 70s, when it was first applied in development (Cornwall, 2008:15-18). Today, participation has become 'mainstream' in

²⁴ Throughout this thesis I will use the term 'participation'. An analysis of the differences or similarities with related terms and concepts such as 'community-driven development', 'bottom-up development', or 'pro-poor development' would be certainly interesting, but lies out of the scope of this thesis.

development language and practice (Henkel & Stirrat, 2001:170-171). Its radical and transformational notions, common throughout participation's first decades of usage, have almost disappeared in favour of a more instrumental understanding (Henkel & Stirrat, 2001:171). Mitlin & Thompson (1995:233) argue that this happened due to a shift in governmental focus and policies towards market-oriented economies, decentralization and privatization of public services.

One way how to make sense of the many meanings attached to participation is therefore to classify them according to the purpose and interest which are supposed to be achieved through participation. Cornwall (2008) drawing on work from Sarah White (1996), distinguishes between nominal, instrumental, representative and transformative forms of participation (table 1). On the upper part of Cornwall's matrix, participation is seen as a *means* to achieve cost-efficiency and productivity at lower costs (Rahnema, 1992:117), whereas on the lower part participation it is seen as an *end* in itself (or means and end combined) - as a way towards democratization and 'empowerment' of the poor and marginalized (Cleaver, 1999:599). Cornwall's work shows that meaning and purpose of participation can vary between those who 'do' participation to others, and those who participate in these activities done by others.

Cornwall's matrix emphasizes the need to assess the meaning of participation in relation to the context and purpose it is used for. Therefore I have chosen to use Guijt & Shah's (1998:1) definition of participation throughout this thesis, who regard participation in development as involvement of "socially and economically marginalized peoples in decision making over their own lives".

Form of Participation	What 'participation' means to the implementing agency	What 'participation' means for those on the receiving end	What 'participation' is for (the purpose)
Nominal	Legitimization (to show they are doing something good)	Inclusion (to retain some access to potential benefits)	Display
Instrumental	Efficiency (to limit funders' input and make projects more cost-effective)	Cost (of time spent on project-related labour and on other activities)	As a means to achieving cost-effectiveness and local facilities
Representative	Sustainability (to avoid creating dependency)	Leverage (to influence the shape of the project and its management)	To give people a voice in determining their own development
Transformative	Empowerment (to enable people to make their own decisions, work out what to do and take action)	Empowerment (to be able to decide and act for themselves)	Both as a means and an end , a continuing dynamic

Table 1. Interests in and Purposes of Participation (Source: Cornwall, 2008:273)

According to Cornwall's (2008) matrix, Guijt & Shah's definition regards participation as empowerment - with special attention to the actors and beneficiaries of participation: the marginalized. This definition is appropriate for the case study of the Ixtepec CWFP, since the latter wants to enable a marginalized community to become owner and beneficiary of a wind farm, hence to provide opportunities so that the community members can decide over their own lives and development.

Before discussing how power relations can shape the processes and outcomes of participation, I first want to distinguish participation from another similar concept: collective action. According to Dowding (2006:n.p.) collective action "occurs when a number of people work together to achieve some common objective". While this definition can also apply to participation, Jicha et al. (2011) refine the distinction between participation and collective action, understanding the former as an externally-induced activity while the latter is rather understood as community-driven. Since the CWFP's participatory activities (until now) rather follow the first characteristics, I will continue this theory chapter focussing on participation and will discuss the relationship between participation and collective action in the CWFP not until chapter 7.

3.3 FRAMEWORKS OF PARTICIPATION

To be able to answer my research question on what participatory approach is taken within the Ixtepec CWFP, I will draw on several typologies that classify the form, quality and purpose of community participation.

3.3.1 Forms and 'Quality' of Participation

There exists a variety of typologies to classify forms, degrees, levels or intensities of local people's participation in development projects (e.g. Arnstein, 1969; Cornwall, 2008; Pretty, 1995). Because of its simplicity in description and applicability I have chosen Dahl-Østergaard et al.'s (2003) typology, which describes community participatory activities along a continuum of different forms of participation: (I) information-gathering (and sharing), (II) community consultation, (III) active participation, and (IV) empowerment (Dahl-Østergaard et al., 2003:3).

Information-gathering is located at the lowest end of the participation continuum and involves interviewing and information-gathering from community stakeholders so that project planners and designers may "develop their own plans without explicit comments or approval by the community" (Dahl-Østergaard et al., 2003:3).

Consultation involves the community in a way that its members are presented with several options and asked to comment or to rank their preferences (Dahl-Østergaard et al., 2003:3). Nevertheless, it is up to the project planners whether or not to include the community's preferences and ranking for the final project design.

In participatory activities that are classified as **active participation**, community representatives and/or residents craft the interventions and participate in their implementation. The degree of participation and control can range from tailor-made solutions to a more feasible, limited agreed-upon menu that can be implemented in a variety of communities (Dahl-Østergaard et al. 2003:3).

The difference between 'active participation' to the last level of the participation continuum, the **empowerment** mode, is basically the notion of training and initiated learning process. Empowerment is understood as giving stakeholders more influence and control Cornwall (2000:36). Here, community groups are not only allowed to participate in the design of interventions and allocation of resources, but are also trained and encouraged to continue to act on their own in the future, e.g. by learning how to develop proposals, estimate budgets, raise funds, and to negotiate and lobby government officials (Dahl-Østergaard et al. 2003:3). According to Cornwall (2008:271), as these groups take control over local decisions, they have a stake in maintaining structures or practices.

Dahl-Østergaard's continuum describes a shift of control from control by authorities or outsiders to control by the people or citizens, which implies a normative view on 'bad' to 'better' forms of participation (Cornwall, 2008:270). Furthermore, in practice these distinctions are probably not as clear and unambiguous, but overlap to certain extents (Cornwall, 2008: 273-274). I will, nevertheless, use this model, to describe and classify the set of activities carried out in the CWFP so far. To complement Dahl-Østergaard's model and discuss the quality of participative processes in more detail, I will also draw on Farrington & Bebbington's (1993:104) axis to assess the quality of participatory activities according to their depth and scope (fig. 5). Farrington and Bebbington distinguish between deep and shallow, and wide and narrow participatory processes. Cornwall describes their matrix as follows:

'Deep' participatory processes strive to engage participants in all stages of a given activity, from identification to decision-making. Nevertheless, they can remain 'narrow' if only a handful of people, or particular interest groups, are involved. Equally a 'wide' range of people might be involved, but if they are only informed or consulted their participation would remain 'shallow'. (Cornwall, 2000:55)

This typology can also be used in conjunction with Walker & Devine-Wright's (2008) classification of community RE projects that distinguishes between process and outcome participation as shown in figure 6. According to their matrix, community wind farms are located in the upper right quarter, where processes are rather open and participatory, and the outcome (benefits) are shared rather locally and collectively. Utility wind farms, on the other hand, are located on the opposite side where the wind farm development processes are rather closed and institutional (top-down), and the benefits are accrued by the company external to the community rather than the community itself.

The process and outcome dimensions of Walker et al.'s model can thus not only be distinguished being either open or closed, local or distant, but in terms of their depth and breadth. Outcomes could be open and local, but for example, only be distributed among a small share of local people (being 'narrow'), or be spent in a one-time activity such as a festival (being 'shallow').

Although labels like 'deep' and 'wide' may carry some normative connotations, studies by, for example, Elinor Ostrom (2010) have shown that 'more' participation (referring to large group numbers) is not necessarily leading to better results of collective action.

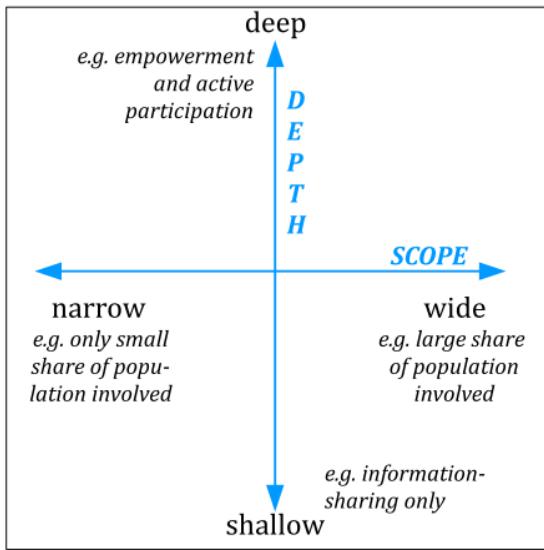


Figure 5. Depth and Scope of Participatory Processes (after Farrington & Bebbington, 1993:104)

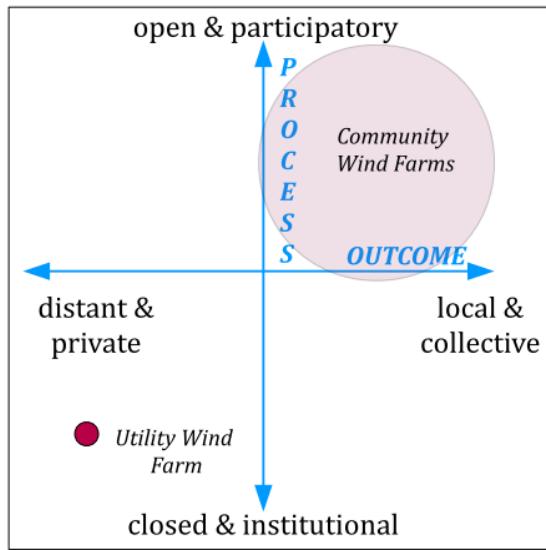


Figure 6. Process and Outcome Dimensions of Community RE Projects (Walker & Divine-Wright, 2008:498)

3.3.2 Spaces of Participation

Participation usually takes place in some form of physical or virtual space or platform. Andrea Cornwall (2008:275) distinguishes between those spaces that have been 'invited to', and those who are 'self-created'. The former, e.g. committees and councils, can be organized due to statutory obligations or their own initiative and are made available by community externals, e.g. development workers, "often structured and owned by those who provide them, no matter how participatory they may seek to be" (Cornwall, 2008:275). Due to the way how these spaces have been created (and not 'grown' themselves), it can be challenging to transform them into open spaces for local development and transfer responsibility and ownership. They are rather seen as instrumental to participants, e.g. to be used to pursue their own interests (Cornwall, 2008:275). This is not really surprising, but can also be dangerous when, for example, a small sample of self-selecting participants takes part, through which status and power of the local elite or cliques relations are reproduced and even reinforced (Hailey, 2001:94).

On the other hand, spaces that people create for themselves, e.g. networks of neighbours or women's groups, are likely to have an entirely different character from most invited spaces (Cornwall, 2008:275). Differences of status and power likely to be inherent to 'invited spaces' are not that marked in these participatory spaces, since they often "consist of people who come together because they have something in common, rather than because they represent different stakeholders or different points of view" (Cornwall, 2008:275).

3.4 PARTICIPATION - A 'MASK' OF POWER RELATIONS!?

The previous section on forms and spaces of participatory has shown that the concepts of participation and power are interconnected. In the following two sections I will present and discuss the critique of many authors who regard participation – both in its technical dimension as well as theoretical conceptualisation – as a form of conscious or unconscious “de-politicisation” (Williams, 2004:55). According to this critique participation - consciously or unconsciously - masks local power relations without undertaking the necessary changes at the macro-level, which “leaves inequitable global and local relations of power, and with it the root causes of poverty, unchallenged” (Cornwall, 2000:15). Cooke and Kothari (2001) have therefore called participation “the new tyranny”.

I will focus on the two major power-related critiques that will be relevant for the analysis of my data: the 'myth' of community, and the role of 'local' knowledge in development work.

3.4.1 The 'Myth' of Community

Participation is always done 'with', 'for', or 'by' someone (Cornwall 2000:22). However, the term 'community', which is often the target of participation, is open to range of possible interpretations, and as Shaw (2008:27) argues frequently romanticised - premised on a normative account of 'what community ought to be, e.g. the good life'. According to a constructivist critique this notion of 'community' disregards the wider socio-economic context through which the 'community' is constructed (Shaw, 2008:27-28). According to Anyidoho (2010:319) this has led to two major contested assumptions concerning community participation, namely that (1) a community can be defined as a “stable group of people who self-identify as members of that group and who have similar backgrounds, norms, interests, priorities, and aspirations” and, (2) “that this group of people will participate in development projects in uniform and predictable ways”.

Concerning the first assumption, Anyidoho (2010:321) argues that rather than the local people themselves, it is often outsiders such as the state or development agencies that define and frame a 'community' in development projects and policies. Such a definition then determines who is ““included” in rights, activities, benefits and (...) who is excluded because they do not belong to the defined entity” which can deepen the exclusion and marginalization of those actors in society that were already marginalized (e.g. women) (Cleaver, 1999:603).

In the context of community renewable energy projects this means that '*communities of locality*' (based on a certain geographical location) should be differentiated from '*communities of interest*' (individuals within one or many different community of locality that share a common interest, or outlook with regard to faith, politics, social interaction, or ethnicity) (Bolinger, 2001:6; CSE & Hassan, 2005:7).

Furthermore, categorizing and labelling segments of the 'community' (e.g. the 'poor', 'women', 'youth') “leads outside agencies to treat these categories as unproblematic and bounded units” (Cornwall, 2008:277), although those put into these categories may not see themselves in these terms at all and may disagree with the views associated with those groups. Social dynamics (e.g. of livelihoods

and institutions) should be understood in as well as in between groups (Cornwall, 2008:278).

The second assumption, which was pointed out by Anyidoho, disregards the interests of the community and its members' possible active choice to not participate. Cleaver (1999:604) therefore doubts the often taken assumption that „communities are capable of anything, that all that is required is sufficient mobilization and the latent and unlimited capacities of the community will be unleashed in the interests of development”. This view neglects the constraints, may they be of structural, capacity, technical or material-related kind, that affect communities (Cleaver, 1999:604). Indeed, non-participation or self-exclusion can be a rational strategy for people (Cleaver, 1999:607).

Guitt and Shah (1998) have called this phenomenon thus the “myth of community”. Whereas it makes it easier on an operational level to work with an easy identifiable and homogeneous group of people, than to look into diverse needs and priorities within that group (Anyidoho, 2010:321; Cleaver, 1999:604), this mask or 'cloak of community' can be used as a “political tool” (Sihlongonyane, 2001:43) to hide internal and external power relations and tensions with and in between the communities, including inequity and continued oppression of the already marginalized (Anyidoho, 2010; Cooke & Kothari 2001; Cornwall, 2000; Guitt and Shah 1998), reproducing dominant power structures (Henkel & Stirrat, 2001:171-172).

3.4.2 Local Knowledge

No matter for what purpose participation is used, according to (Mosse, 2001:16) the 'extraction' and use of 'local people's' knowledge is important to almost all of them. He (2001:16) argues that this is due to the underlying assumption that the usage of local knowledge can transform the usual top-down and bureaucratic development approach. From a constructivist's point of view this assumption disregards that knowledge is a product of social relationships that are embedded in social norms, rituals and practices (Kothari, 2001:141). Knowledge is hence constructed and “shaped by local relations of power, authority and gender” (Mosse, 2001:19) and can not be treated as a “fixed commodity” (Long & Villareal, 1994 as cited in Mosse, 2001:17).

Unequal relations of power between members of a community can influence the bargaining power different actors have to shape or express 'their' understanding of how they interpret reality. The possibly unequal power relations between the local people and outsiders (e.g. development agencies, NGOs) can also shape and direct 'local knowledge' production, since they are not simple passive facilitators, but can project or even enforce their project perceptions and goals onto the 'community' (Mosse, 2001:19). “The mere presence of external facilitators can influence outcomes and the shape of discussions” (Hailey, 2001:94), e.g. by leading discussion, or by raising expectations that cannot be met.

Summarizing, the literature review of this chapter has shown that not only the way how participation is done can shape or construct power relations within the community, but that participation in any form or quality can be a 'political tool' – even if unconsciously used – since it neglects, oversees or 'apolitizes' the unequal power relations on which 'communities' or 'knowledge' are built. The analysis and

understanding of the structural barriers and reasons for marginalisation and unequal power relations - at the micro to macro-scale - are therefore important for any endeavour that wants to avoid the tyrannical effects of participation. In chapter 6 and 7 we will hence encounter this issue again.

In the next chapter, I will lay out and discuss the concept of social entrepreneurship, which is related to this thesis' second research question.

4 THEORETICAL FRAMEWORK II: SOCIAL ENTREPRENEURSHIP

Social entrepreneurship (SE) is a relatively young field of public and academic interest, which emerged about 20 years ago (Alter, 2007; Mair & Martí, 2006; Nicholls, 2009). It shares certain characteristics with other 'hybrid' approaches²⁵ that – simply described - combine non-profit mission with business strategies.

As I have argued before, the rising global adoption of neoliberal economic policies has shifted responsibilities from the state to the private and non-profit sectors (e.g. Södersten, 2004), as well as to the local level (Jicha et al., 2011). According to this rationale, SE can be regarded as an example of how the for-profit and non-profit sector had to adapt to this changing economic, political and social environment. While some argue that this shift represents a potential to enable for-profit enterprises to access new markets (e.g. Prahalad, 2006), others regard this as an opportunity for the non-profit sector to improve its efficiency, effectiveness and sustainability of the intended social and environmental impact (e.g. Alter, 2007; Foster & Bradach, 2009; Wankel, 2008).

The aim of this chapter is to make the reader familiar with the concept of SE, social enterprise organisation (SEO), and social entrepreneur. Further, it is my goal to develop a framework of the elements of a SEO, which can then be applied to the Ixtepec community wind farm project – which in my research hypothesis I assumed to take a SE approach.

4.1 MEANING AND CHARACTERISTICS OF SOCIAL ENTREPRENEURSHIP AND SOCIAL ENTERPRISE

There exist various definitions of the concept social entrepreneurship and its organisational form, the social enterprise (Alter, 2007; Boschee & McClurg, 2003; Dees, 1998). Nevertheless, these definitions tend to show similarities at least in the following characteristics of SE: (1) the special role social purpose plays for social entrepreneurs and (2) the combination of business-like approaches with philanthropic aims in a 'hybrid' model which tries to maximize both aims (Piela, 2009:6). Nicholls (2010:621) explains the variety (and ambiguity) of SE definitions with the existence of different paradigms built by actors in the theoretical and practical field of SE. He (2010:621) distinguishes two major sets of discourse on SE; the first focuses on the 'hero social entrepreneur', the second places communities and networks of action at the heart of SE.

²⁵ Other similar concepts are, for example, social purpose venture, community wealth venture, caring or green capitalism. To analyse differences and similarities with these related concepts lies out of the scope of this thesis.

The former discourse on the 'hero social entrepreneur' emphasizes the extraordinary qualities (e.g. leadership skills) and character of the social entrepreneur (e.g. risk-taking, being visionary) (Bartlett, 2004; Boschee & McClurg, 2003; Farmer, 2009) and is promoted mostly by North American scholars focusing on business solutions to social problems (Nicholls, 2009:211). The latter discourse, on the other hand, is promoted mostly by European scholars and sees collective action and bottom-up solutions as the roots of entrepreneurship, thus prioritizes group or network action over individualism (Nicholls, 2009:211; Nicholls, 2010:621). According to Nicholls (2010) the 'hero social entrepreneur' discourse dominates the literature on SE.

Both discourses, nevertheless, locate SEO somewhere between strictly philanthropic (non-profit) and strictly commercial²⁶ (for-profit) organisations; they represent thus a 'hybrid' form. Nevertheless, there does not exist only one type of 'hybrid', but as Alter (2007:14) argues, four different types, which differ in motive, accountability and profit-distribution, and are aligned along a spectrum from social to socio-economic purposes (*fig. 7*). According to this distinction corporations practising social responsibility belong to the 'hybrid' spectrum, but share more characteristics with the traditional for-profit sector, e.g. profit-making motive and accountability towards shareholders.

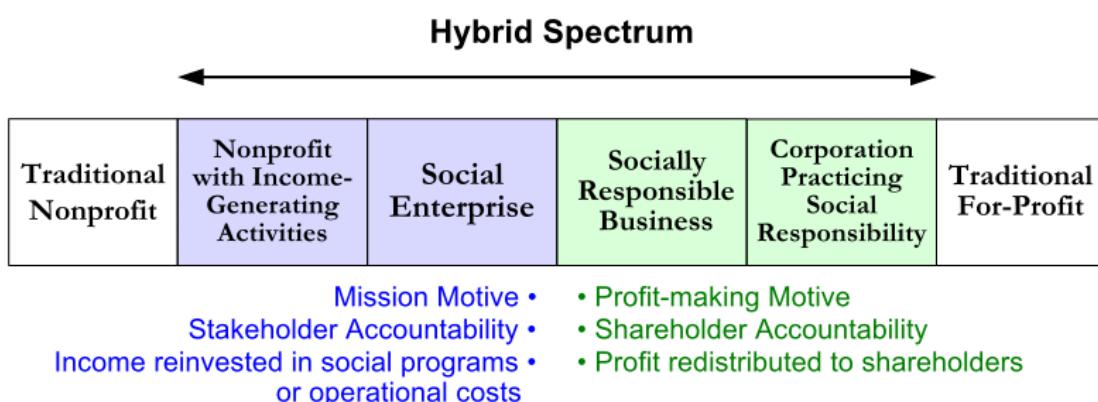


Figure 7. The 'Hybrid' Spectrum between Non-profit and For-profit Enterprises
(Source: Alter, 2007:14)

According to this refined distinction, a social enterprise is not placed at the exact centre between non-profit and for-profit, but shares more characteristics with the non-profit side. Rather than pursuing mere personal gain or shareholder wealth, the main purpose and underlying motive of a SEO is mission-related: to create social impact²⁷ (Bornstein, 2007:xii). This involves finding solutions to social

²⁶ With this dichotomy between for- and non-profit enterprises I do not intend to deny that the profit-driven business approach does also have direct or indirect social motivations. Adam Smith (1976) in his 'Wealth of Nations' argued that each person who pursues his or her self-interest, will (though unconsciously) contribute to the overall welfare of society due to the 'invisible hand' of the market. Social considerations and a community interest, e.g. job creation, provision of social services, can thus surely be pursued by for-profit organisations (Austin et al., 2006:3; Williams & Nadin, 2011). Nevertheless, markets are subject to market failures (such as failure to provide for the poor or common goods) (Baekkeskov, 2006), for which SE explicitly looks for answers. Therefore I regard a dichotomy as such as justified.

²⁷ In this thesis, I will use the term 'social impact' to refer to both social and environmental impact, as I see any human or social action in direct interaction with the non-human environment.

problems (Austin et al., 2006:2) or market failures (Alter, 2007:18; Baekkeskov, 2006:n.p.), with special regards to disadvantaged or marginalized groups (Bartlett, 2004:2). The social enterprise thus strives to create wider social change, not only trying to alleviate the symptoms of problems, but trying to understand and solve the underlying causes (Bloom & Dees, 2009:47; Bornstein, 2007:xii; Partzsch & Ziegler, 2011:64). Dees (1998:4) and Yunus et al. (2010:310) call social entrepreneurs therefore 'agents of change'. They can take an activist role in challenging the status quo, advocate change (Austin et al., 2006:2; Trivedi, 2010:68) and transform institutions or legislation (Pacheco et al., 2010:465).

The **goal** of a SEO is to create both social and economic value for the public good (also called 'double or triple bottom-line') (Dees, 1998:2; Emerson, 2003:n.p.). There are two types of strategies a SEO usually uses to achieve its goals: (1) programme strategies; and (2) financial (or income-earning) strategies (Alter, 2007:57). Whereas the former are related to the mission of the SEO, the latter involve market-based strategies and elements of commercial entrepreneurship (Alter, 2007; Dees, 2003; Martin & Osberg, 2007; Thompson, 2002; Wei-Skillern et al., 2007; Yunus et al., 2010). If profit is made, it is seen as a means to achieve the SEO's mission-related goals (e.g. economic or educative purposes), to support social programs or to pay for operational costs, but not as an end in itself (Boschee & McClurg, 2003:4; Dees, 1998:3; Trivedi, 2010:68). This distinguishes a SEO from a company practising Corporate Social Responsibility (CSR), for example, since these company usually only target the financial bottom-line (Yunus et al., 2010:309).

The **income sources** of a SEO involve a mix of traditional non-profit capital sources, e.g. grants and governmental subsidies, with income-generating activities (e.g. fees, sales of products and services) and credits at or below market-rate. There exist opposing views on how much of the operative costs have to be covered by the income-generating activities: a mix of philanthropic sources (e.g. Dees, 1998b) or full-commercialisation (e.g. Yunus et al., 2010). A similar debate exists about whether a social business' surpluses can be paid to the owners or investors (e.g. as dividend), or can only be used and reinvested in the SEO to achieve its mission (thus to serve its beneficiaries) (Yunus et al., 2010:310). Furthermore, many SEOs are also characterised by social ownership structures and governance, based on participation by and accountability towards specific stakeholder groups (e.g. employees, users, clients, local community groups and social investors) and the wider community (SEC, n.d.).

SE is not bound to one specific **legal form**, but can be organized through a variety of organizational forms depending through which format the required resources to address that problem can be most effectively mobilized (Austin et al., 2006:2). Thus, examples of SE can be found within the non-profit, business, or governmental sectors (Alter, 2007:10; Austin et al., 2006:2).

Having gone through the major characteristics of a SEO, I will use Alter's (2007:18) definition of a SEO throughout the rest of this thesis, since it summarizes its major characteristics without making individual variations impossible.

A social enterprise is "any business venture created for a social purpose (mitigating/reducing a social problem or a market failure) and to generate social value while operating with the financial discipline, innovation and determination of a private sector business."

Accordingly, I regard a social entrepreneur to be a person who engages in activities that follow the above definition of a social enterprise.

Based on this literature review and drawing on an existing typology from Alter (2007:18), table 2 summarizes the nine major characteristics of a social enterprise organisation. In chapter 6 I will use this categorization to answer my second research question how this hybrid model can help the community in Ixtepec to engage in and benefit from a community wind farm model.

	Social Enterprise Organisation (SEO)
Purpose	Social purpose: created to generate social impact and change by solving a social problem or market failure
Motive	Market-driven and mission-led
Strategy	Programme approach: mission-related/centric activities Financial/enterprise approach: uses business vehicles, entrepreneurship, innovation, market approaches, strategic orientation, discipline and determination of a for-profit business
Goal	Dual value creation: to create social and economic value ('double/triple bottom-line')
Capital	Blend of philanthropic, governmental and/or commercial sources of capital
Ownership & Accountability	Social ownership: with a focus on public good and stewardship, although not necessarily reflected in the legal structure
Purpose of income-generating activities	Income is reinvested into the SEO 1. additional funding mechanism for the organization's social programs or operating costs and enjoy freedom from unrestricted capital; or 2. a sustainable program mechanism in support of the organization's mission. Used for either purpose, business success and social impact are interdependent.
Legal status	Can take a variety of legal forms along the continuum from non-profit to for-profit organisations
Organisational structure	Social enterprises are created/incorporated strategically to accomplish mission: structured as a department within an organization or as a separate legal entity, either a subsidiary non-profit or for-profit.

Table 2. Characteristics of a Social Enterprise (adapted after Alter, 2007:15)

4.2 CRITIQUE OF SOCIAL ENTREPRENEURSHIP

From a constructivist's perspective, SE is subject to several critiques.

The first critique challenges the view that combining 'the best' from non-profit and for-profit sector brings best result for solving social problems. Dees (1998:4) argues that markets do not work for non-profit enterprises in the same way as they do for for-profit enterprises, because of what he calls a "value-capture problem". The goals and outputs of a non-profit are usually of qualitative, not quantitative character and are thus hardly or impossible to be assessed or even measured within market terms. For example, SEOs want to improve or conserve common goods (e.g. the atmosphere or the oceans), or provide goods or services

(e.g. social services) to clients who would otherwise not be able to pay for these (Trelstad, 2009:195-196). Therefore the question remains how enterprises pursuing primarily social purposes will withstand in a market, which cannot measure the worth of the goods or services provided.

A second critique is based on Nicholl's (2010) discourse analysis on SE. As Peredo and Mclean (2005:26) put it, "most attempts to define social entrepreneurship are individualistic in their conception and fail to acknowledge collective forms of social entrepreneurship" (Trivedi, 2010:68), which could, for example include activities of groups, communities and networks. The collective dimension of SE is hence an under-researched field and could provide little background to this research.

Following authors like Prahalad (2006) or Wankel (2008) SE and other business approaches could be a viable new way of tackling persisting social problems such as poverty. However, from a constructivist standpoint, which regards poverty and inequality as products of unequal social, economic and political relations that interact and reinforce each other (Greig et al., 2007:29), this would require structural changes in the dominant economic system (e.g. Foster, 1999). Although, for example, Bornstein (2007) and Drayton (2002) argue that the social entrepreneur can act as an agent of change and find solutions to root causes of social problems, there exist little empirical evidence for the effectiveness of SE to achieve these structural changes beyond mere rhetorics (Peredo & Mclean, 2005).

Having presented the theoretical framework for this thesis, I will use the concepts and frameworks presented in this chapter to analyse the participatory approach and social enterprise model throughout the next two chapters.

5 ANALYSIS & DISCUSSION I: PARTICIPATION IN THE CWFP

The goal of this chapter is to answer the research question concerning what possibilities for participation are offered for the local community to engage in the process and outcome of the community wind farm project. Further, this chapter will also involve an initial analysis of how local power relations could directly be shaped or constructed through these participatory activities and new organisational bodies. How the combination of the participatory and social entrepreneurial approach could affect power relations – from a local to global scale - will be the focus of the final discussion in chapter 7.

I will start with an analysis of how community participation is understood and pursued in the Ixtepec project, using the frameworks of purpose, type and spaces outlined in section 3.3.

5.1 TYPE AND PURPOSE OF PARTICIPATORY ACTIVITIES

The focus and scope of community work carried out by Yansa have changed since October 2010, when the Commune's assembly decided on a formal partnership with Yansa regarding the CWFP. Before that assembly, the 'community' work was focused on consultation and information-giving. After the Commune had given consent to continue the CWFP with Yansa, the community process has broadened in focus.

To analyse the type of participatory activities pursued during the current phase of the project, I will draw on Dahl-Østergaard et al.'s (2003) typology, presented in section 3.3.1. As I argued in chapter 3, the meaning of participation can only be understood if seen in relation to the context and purpose it is being used for. Therefore I will add Cornwall's (2008:273) typology of purpose and interest in participation to this analysis.

In the Ixtepec project, following Dahl-Østergaard et al.'s typology, the first two types of activities (**gathering and sharing of information**, and **consultation**) are often combined, and have, until this point, involved a variety of different activities, e.g. :

- distribution of promotional material, e.g. video, project flyers
- meetings with the farmers' associations (Commune, APA, CRA)
- consultation with the owners of land in the planned wind farm area
- community needs assessment, including
 - surveys, focus groups (e.g. through neighbourhood meetings)
 - preparing a questionnaire with the intent to interview 150-300 people about their needs and priorities

Following Cornwall (2008), the purpose of these activities could be both instrumental and representative. On the one side these activities shall increase awareness among those parts of the community which are still not or only partly informed about the design, goals and spaces of participation of the project. Further, they serve to invite new people to participate in the spaces created for community participation (Sergio Oceransky, interview). This could potentially raise confidence and acceptance of the project.

On the other hand, the activities that are built around the needs assessment strive to what Cornwall (2008:273) regards as giving "people a voice in determining their own development". At this stage of the project people are already asked for their opinion on where the focus for future community development shall be put – how the financial resources generated through the electricity sale could be invested most effectively and according to the community's needs. The information received, documented and processed by Yansa, is used for multiple purposes: first, to define the objectives and criteria of the community trust on how the available funds can be distributed by the community trust. Second, the Yansa Foundation needs this data to develop and define the goals and indicators of community development, to be able to inform and report back to the social investors about the intended and achieved community impact (Sergio Oceransky, personal communication).

The third type of community participation is '**active participation**', in which according to Dahl-Østergaard et al. (2003:3) community representatives and/or residents craft the interventions and participate in their implementation. In the Ixtepec CWFP I regard this form of participation to be pursued through the involvement of volunteers in organisational tasks, such as the promotion of the CWFP within their neighbourhoods or work places. Further, an organisational committee was formed to advance and discuss the local project's progress as well as to share responsibilities on activities to be done. The main purpose of these activities is to make people part of the organisational process, to increase their identification with the project, but also to share responsibility, volunteering time

and costs. Therefore, following Cornwall's typology these activities can be classified as instrumental and representative. While Yansa can increase its outreach and avoid carrying the sole responsibilities, people involved can find ways how to shape the project (Cornwall, 2008:273).

The representative form of participation becomes even more evident in the fourth type of community participation (**empowerment**), with which I associate both the women's and youth forums. The initial purpose to create these forums was to 'give voice' to the women and youth within the community trust and to ensure their participation in the trust's decision-making and distribution of revenues (Sergio Oceransky, interview). Further, both spaces have also become spaces for the women and youth to interact, share their opinions, and start their own projects of interest in separate working groups. Following Cornwall's (2008:273) typology, this type of participation can be classified as first attempts towards transformative participation, in which participation is seen both as a means and an end. Women and youth shall be enabled "to decide and act for themselves" (Cornwall, 2008:273). Nevertheless, as the following sub-chapter will show, external influence in these spaces is still evident, and shapes the processes and outcomes of these forums.

In this sub-chapter the field data have shown that the types of community participation range over the whole spectrum of community participation in development (as proposed by Østergaard et al., 2008); from information gathering and sharing, consultation, active participation to empowerment. Whereas Yansa's role as facilitator is more important and evident in the former two types of activities, the participants are much more in focus in the latter two types. Accordingly, the participatory activities serve for instrumental, representative, and transformative purposes, though never for display or nominal purposes. Since the CWFP is still in its initial stages, Yansa's role in the community process is still dominant, but can be expected to reduce as more participants join and gain experience. In the end, all participatory activities are geared towards one goal: the empowerment of the community to lead their own development.

5.2 INVITED VS. SELF-CREATED SPACES OF PARTICIPATION

To know by whom spaces of participation have been created, builds a basis for the further analyse of how power relations can shape or are shaped in participation. I therefore regard Cornwall's (2008:275) distinction between invited and self-created spaces as useful.

I have identified seven major spaces of participation that were created for and by the community in regards to the CWFP. They are summarized in table 3. Four spaces have been initiated or 'invited to' directly by Yansa: the organizing committee, the women's and youth forums, as well as the future community trust, which were all described in section 2.3.3.

Spaces	Regularity of meetings	Space initiated by
Organizing Committee	Once per month	Yansa
Women's Forum	Once per month	Yansa
Youth Forum	Every or every second month	Yansa
Community trust	Not constituted yet	Yansa
Working groups of Women's forum	Irregular	Women themselves after proposal from Yansa
Working groups of Youth forum	Irregular	Youth themselves after proposal from Yansa
Commune	Ordinary assemblies every four months	Land owners

Table 3. Spaces and Regularity of Community Participation

The member of the women's and youth forum have recently founded own working groups. Based on their own community problem analysis and needs assessment conducted during the first women's and youth forum in December 2011, the involved women and youth have started to divide themselves into smaller working groups of their own interest, e.g. recycling, and preservation of the local Zapoteca culture, in which they are working rather independently and are planning how to develop their ideas. Following Cornwall, I therefore regard them as 'self-created' spaces.

Although Yansa facilitates the community process with research on community needs and managerial capacity, ultimately all future decisions on how the community share of the wind farm profits shall be used are to be taken by the community itself, i.e. the community trust. Although Yansa still influences and steers the processes and outcomes of the just mentioned spaces, this is supposed to be just a temporary phase of influence, while more and more decision-making shall be done by the community at later stages, as the following statement from the Yansa web page expresses.

Yansa takes the role of a facilitator (...), but the goal is that the community will ultimately take all necessary decisions by itself (Yansa, 2012a).

Other spaces that are used for community participation are the Commune, but also the Agricultural Producers Association, or the Cattle Raisers Association. These organisations have existed already long before the CWFP idea and are used occasionally for consultation and information-sharing.

According to Cornwall (2008:275), due to the way how the 'initiated spaces' have been created by community externals (and not 'grown' themselves), it can be challenging to transform them into open spaces for local development and transfer responsibility and ownership to local people later on. Although the women's and youth forums were created to serve as open and participatory platforms of exchange and basis for local community's development, I observed that the process and outcomes of these meetings sometimes rather followed the agenda of Yansa – what can have happened unintendedly. This is, according to Cornwall (2008:275) a usual effect of invited spaces "no matter how participatory they may seek to be".

This could have consequences on how the members of these forums can later on relate to the decisions taken in these spaces.

Further, the overall number of participants in these spaces has been declining since their initiation, as can be seen in table 4. Due to the small number of forums and meetings that have taken place until now, the validity of this evaluation is limited. Nevertheless, it might reflect a trend of decreasing interest of people in participating in these bodies, or how these forums are not able to motivate more people for participation. Possible cultural and historical reasons for a lack of participation will be discussed in chapter 7.

Space	Date (DD.MM.YY)	Total number of participants	Number of women	Number of men
1 st Women's forum	21.-22.12.12	approx. 20*	approx. 20*	approx. 5*
2 nd Women's forum	27.01.12	18	18	
3 rd Women's forum	24.02.12	11	11	
4 th Women's forum	30.03.12	approx. 10*	approx. 10*	
1 st Youth forum	27.12.12	approx. 13*	approx. 8*	approx. 5*
2 nd Youth forum	25.01.12	14	1	13
3 rd Youth forum	31.03.12	5	2	3
1 st Organizing Committee Meeting	25.01.12	24	n/a	n/a
2 nd Organizing Committee Meeting	17.02.12	15	5	10

Table 4. Number of Participants in Forums and Meetings (December 2011 to March 2012) (* approximate numbers are used where no first hand data was available and are derived from photos and personal communication with participants)

In any case, also too high participation levels could be dangerous for the community process, as the following statement of Sergio Oceransky shows:

The community organisational process hopefully will be strong enough to incorporate many different actors and stakeholders, and to really welcome different sectors. ..., but that is actually the part where it gets very, very complicated, because that is where it is much more difficult to avoid political operators coming in and taking over the process. (Sergio Oceransky)

To stay independent from political parties' interests, can thus help the community process to avoid being manipulated.

Following Cornwall's (2008:275) argumentation it is therefore important to further nurture the 'self-created' spaces such as the women and youth forums' working groups, because they have an entirely different character from most invited spaces. For example, differences of status and power which are likely to be inherent to 'invited' spaces, are not inherent to 'self-created' spaces (Cornwall, 2008:275).

This could implicate that the more opportunities arise to engage in self-created spaces within the CWFP, the less differences in power will be inherent to these groups. Thus, more work has to be done to "enable the local people to do their own analysis, to take command, to gain in confidence, and to make their own decisions". (Mikkelsen, 2005:54). A shift of mentality from 'they participate in our project' to 'we' participate in 'their' project (Mikkelsen, 2005:54) should take place. This would require more training, for example, to improve the participants' skills to work effectively in groups, manage projects and time.

5.3 COMMUNITY OF INTEREST VS. COMMUNITY OF LOCALITY

Referring to the critique discussed in section 3.4.1, a clarification of who in the community the CWFP is done 'for' and 'with', is helpful to not romanticize or manipulate the meaning of community. I will apply the distinction between 'community of locality' and 'community of interest' (CSE & Hassan, 2005:7), as presented in section 3.4.1, by drawing on interviews and observations of who is participating in the project.

The Commune can formally be counted as community of interest, since its members voted in favour of the community project, however there exists no homogeneous interest in participation among them yet. Further, the owners of territory in the proposed wind farm area, who have already given consent for their land to be used, can also be regarded members of the 'community of interest'. Also Yansa and those active in the women and youth forum, and the organisational committee are members of this group. Furthermore, there are probably 'silent' or hidden supporters, who would like to see a CWF to be realized in Ixtepec, but do not get active. For example, the president of the municipality has expressed his support for the project, but does not participate in the organisational activities. I assume the motives and interest of each of the members of this 'community of interest' to be very different, though to analyse them lies beyond the scope of this thesis.

Regarding the outcome dimension of the CWFP "[t]here will be a bias towards peasants, women and youth and these focus groups, which I think is legitimate" (Sergio Oceransky, interview). He calls this bias legitimate, because these three sectors belong to the disadvantaged or unrepresented groups in Ixtepec's Commune, and in society in general. In its ambition of 'empowerment', the Ixtepec CWFP is supposed to benefit those sectors of the society that need support most.

The majority of benefits will thus most likely remain among the community of interest, but also benefit the members of other groups that have not participated throughout the process. For example, a pension fund for Commune members will also cover those who have not participated, or an recycling system would benefit the local environment, thus everyone.

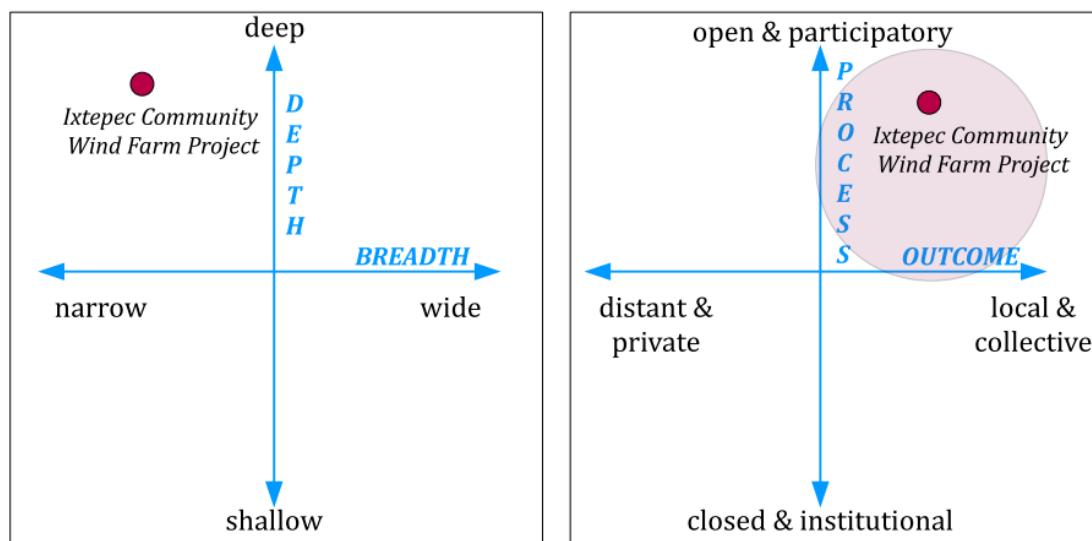
On the other hand, the 'community of locality' is the geographically and administratively identified area of Ixtepec with its about 26.000 inhabitants, of which the majority does still not know about the process or is not involved in any activities.

Having distinguished who can be regarded as member of a 'community of locality' and who a member of a 'community of interest' of the CWFP, it becomes clear that 'community' at this stage of the project refers to a small and heterogeneous 'community of interest'. This raises the question whether a 'community' project that was decided on and currently led by a small fraction of the total community will be regarded as legitimate by the rest of the 'community of locality'. In the future members of the 'community of locality' might have environmental or social considerations against the wind farm, or oppose the project as being imposed on them.

However, the term 'community' project does not only exclude members of its own locality. Another village that is located beyond Ixtepec's administrative boarder, at the north-eastern boarder of the wind farm, might also raise concerns and doubts about the project, e.g. regarding visual or noise pollution. Nevertheless, it has not been consulted at all, and won't receive any benefits from the project either.

5.4 SUB-CONCLUSION

Drawing on Farrington and Bebbington's (1993) axis of depth and scope of participation, the participation level pursued at the moment could be classified as deep and narrow, because the project "strives to engage participants in all stages of a given activity, from identification to decision-making" (Cornwall, 2000:55), but only involves few people and particular interest groups. Thus empowerment is strived for, but not achieved yet at this early stage of the project. Following Walker and Divine-Wright's (2008) axis, I regard the process dimension as open and participatory, but the outcome dimension as not fully collective, since farmers, women and youth will be the primary beneficiaries, as visualized in figures 8 and 9.



6 ANALYSIS & FINDINGS II: THE SOCIAL ENTERPRISE MODEL OF THE CWFP

To answer my research question of how the proposed social enterprise model could overcome the financial, legal and capacity-related barriers to enable the Ixtepec community to realize and become owner of the Ixtepec wind farm, I first want to analyse what kind of SE approach is actually pursued in the CWFP. To do so I will follow the organisational dimensions of social entrepreneurship (SE) that were outlined in chapter 4.1, but also draw on Nicholl's (2009; 2010) distinction between the two discourses on SE concerning its personal and collective dimensions.

6.1 THE ORGANISATIONAL DIMENSION OF SOCIAL ENTREPRENEURSHIP

Drawing on the nine differential characteristics (see chapter 4) that can distinguish a social enterprise organisation (SEO) from a commercial business (purpose, motive, strategy, goal, capital, ownership and accountability, purpose of income-generating activities, legal status, and organisational structure), I argue that the approach, which Yansa uses to realize the CWF fulfils the necessary criteria to be called a social enterprise and hence will prove one of my research hypotheses.²⁸ As the description of the Ixtepec CWFP in section 2.3.2 has shown, the proposed model is complex with for-profit and non-profit activities and purposes deeply interwoven. To not repeat a similar analysis to section 2.3.2 and due to space limitations of this thesis, I only provide a summary of how Yansa fulfils the criteria of a SEO, as summarized in table 5, and rather discuss how these characteristics help to overcome the barriers for the Ixtepec community to realize a CWF. The analysis of the SE approach can be found in Appendix 5.1.

Providing access to financial resources and enabling community ownership

No matter whether the wind farm would be of small or large scale, to become the owner of wind farm would lie out of the financial capacity of the Ixtepec community. Hence, to not depend on donations or being forced to pay high interest rates on credits, Yansa suggests to obtain the necessary capital for the wind farm projects from below market-rate financial capital from banks and so-called impact investors. However, since these investors will not become owners of the wind farm or occupied territories, but only provide the capital, which will be continuously paid back, the community and Yansa can thus be the full recipients of the benefits to be accrued. Further, the community will not lose ownership over their land - as experienced with other wind farm projects in the Isthmus (e.g. Oceransky, n.d.; Vance, 2012a) - but the Commune will remain the legal owner of its communal territories. Thus communal territory control is ensured. The Commune will also be member of the Yansa Ixtepec CIC, and thus co-own the wind farm. According to Oceransky, the business and community model chosen, reflects the need to ensure the community's ownership and control, as the following quotes illustrates.

It is not just about more of money going into the community, but it is about who controls the process, the assets, [and] the decision-making. (Sergio Oceransky)

²⁸ Due to this symbiosis' of complementing activities, it is not possible to regard only the Community Interest Companies as examples of SE, but rather to consider the whole community wind farm model as 'social entrepreneurial'.

	Characteristics of the SE model proposed by Yansa	Has an effect on
Purpose	Social and environmental purpose: to create social impact in a historically disadvantaged community and foster environmental sustainability	Can create trust among the community in Yansa and the organisational approach
Motive	Mission-led, market-driven, community-centred	
Goal	Triple value creation: Social, environmental and financial value creation	
Strategy	Programme approach: Community development, empowerment, advocacy and implementation of the community wind farm model Enterprise approach: electricity generation and sales from wind energy; applying management skills and technologies; creating networks and partnerships	Can potentially reduce legal barriers Provides managerial and technical capacity and access to strategic networks
Capital	Below-market-rate capital (provided by social investors and banks)	Provides financial resources
Ownership & Accountability	Shared membership of Yansa Ixtepec CIC by Commune and Yansa CIC Financial accountability for debt and interest repayment, but no dividend payout	Enables co-ownership and ensures that territory control remains in hands of Commune, reduces risk
Purpose of income-generating activities	1. Surplus from wind energy generation is primarily used as a funding mechanism for investment in community development 2. Re-investment in new community wind farms, to increase share of RE in hand of communities, risk minimisation for existing project (in case of default)	Makes the project affordable for the community Reduces risk
Legal status	Community Interest Company (a for-profit with non-profit purpose), Yansa foundation (non-profit)	Provides security that revenues can only be used for social purposes
Organisational structure	Revenue-stream model: the SEO provides the funding for both the community and Yansa	Makes the project affordable for the community

Table 5. The Ixtepec Social Enterprise Model: Characteristics and Effects

Distribution of Benefits

The revenues generated by the project are connected to the Ixtepec community through a so-called 'revenue-stream model': 50% of the generated financial surpluses from the wind farm are channelled to community development purposes. Through this approach the Ixtepec community is receiving a share of the profits made and can decide on its own – discussed and decided by the community trust - how to use the available funds for its own development.

Providing managerial and technical capacity

The Yansa foundation consults, supports and monitors the community development process and hence provides capacity to the community where necessary, e.g. to support the creation of the Women's and Youth Forums.

The Yansa CIC, on the other hand, provides the technical and managerial capacity for the wind farm development. It is building the necessary networks, e.g. with wind farm developers, and is concerned about the technical details of the wind farm, e.g. turbine size and location.

With this approach Yansa provides the necessary capacities to realize the wind farm. Nevertheless, Yansa not only draws on external people, but also involves local people where possible. For example, a local architect is involved in the planning of the wind farms.

Overcoming legal barriers

Yansa is engaging in advocacy work to reduce and eventually overcome legal barriers for communities to participate in wind farm development as well as to have their territorial rights protected and recognized. This also includes Yansa's advocacy work to include considerations about social impact within the Mexican legislation and law enforcement. To do so, Sergio Oceransky has been engaged in discussions with different Mexican governmental and non-governmental institutions and organisations. These efforts have not led to changes in the Mexican legislation and practice yet, but have at least increased the awareness of various stakeholders about the social and territorial dimension of wind energy development with regards to the indigenous communities in Mexico.

Further, Yansa is striving to spread the concept of community wind farms in Mexico, but also other parts of the world, e.g. by attending conferences and other events. According to Oceransky, advocacy work will play an ever more important role of Yansa's work as the Ixtepec project develops and other projects emerge.

I believe that in the future stages of Yansa's work, influencing policies is going to be a major objective. (Sergio Oceransky)

As the previous analysis has shown, Yansa's social enterprise strategy is key for the Ixtepec community to overcome the financial and capacity-related barriers to ownership and participation in wind farm development, and can at least partly overcome existing legal barriers. However, besides the organisational dimension, also the individual dimension (the qualities of the social entrepreneur) are factors that determine the character of the social enterprise model, as I will lay out in the next section.

6.2 THE PERSONAL DIMENSION: THE SOCIAL ENTREPRENEUR

Sergio Oceransky is the founder and CEO of the Yansa Group. He was born in Spain, but parts of his family are from Mexico. He studied Development Economics in Germany and Human Geography in the UK, after which he worked with peasant and indigenous organizations in South Asia and Latin America (Yansa, 2012a:n.p.). Afterwards he worked as a coordinator for the World Wind Energy Institute at the Nordic Folkecenter for Renewable Energy, Denmark, and intensified his knowledge

on the Danish community renewable energy model, among other topics, which he then was able to adopt in a completely different setting and under different circumstances in Mexico.

Sergio Oceransky, when asked about his role in Yansa, answered: "I am a catalyst." He has been the leading character behind many different activities related to the CWFP, and is still involved in almost all of Yansa's activities.

I've been at the same time directing both the CIC and the foundation, and dealing with the authorities, working with the community, the investors, technology partners, the engineers, and working with other partners, on all kinds of issues. (Sergio Oceransky)

Following the 'hero social entrepreneur' discourse (Nicholls, 2009; 2010), Sergio Oceransky clearly shows characteristics commonly attributed to social entrepreneurs. Although Chelsea Mozen, director of the Yansa Foundation, does not necessarily regard him as an entrepreneur, she thinks that:

[H]e has all the qualities you would commonly attribute to an entrepreneur - he has a vision, he has the desire and ability to make things happen, he is intelligent - all of these things technically make him an entrepreneur. However, my feeling is that all of his life he has been seeking ways to create change and bring about justice in the world. (Chelsea Mozen)

According to this statement and my field work, Sergio Oceransky shows (at least) the following characteristics of a social entrepreneur that have also been mentioned by researchers on SE: being optimistic (Bornstein, 2007), visionary (Bornstein, 2007), committed and persistent (Drayton, 2002), risk-taking (Zahra et al., 2009), and having an ethical drive (Drayton, 2002).

Chelsea Mozen's points out the important role he has played for the development of the project so far and how the same work could not have been done by someone else:

His contribution is invaluable! ... Without his vision and his ability to believe and think beyond what is immediately possible, we wouldn't be anywhere in this process. He has been absolutely essential to creating what it the project is now. (Chelsea Mozen)

The qualities and skills provided by the social entrepreneur have thus been important to handle the complexity of the CWFP, which requires both knowledge in many disciplines, but also the personal and social skills to pursue an idea until the end and be able to inspire others. Nevertheless, these strength can also cause problems in terms of participation as I will discuss in chapter 7.

The individual SE dimension can therefore help to overcome the lack of capacity and knowledge, as well as overcome the insecurity and lack of sufficient local volunteers in times when there is not even a contract signed with the Mexican electricity utility yet.

6.3 THE COLLECTIVE DIMENSION OF SOCIAL ENTREPRENEURSHIP

To complement the analysis of SE elements within the CWF approach, I will now turn to the collective SE dimension, which according to Nicholls (2010) belongs to the second, but less dominant and also less-researched discourse on SE.

According to (Connell, 1999:13) members of a certain community engage in collective action if they either perceive an individual net benefit from it or have a shared belief in the community's welfare. Ostrom (2010) would add that collective action can also be enhanced through cooperation, communication and rules.

Following Jicha et al.'s (2011) distinction between participation and collective action, the majority of activities of the CWFP are types of participation, not collective action, since they are more externally-induced. Nevertheless, spaces for collective action can also open from within these created spaces, e.g. the women's and youth forums. Further, the small working groups that the women created out of their own interest could therefore be first signs of collective entrepreneurship. These sub-groups engage in projects of their interest, e.g. recycling or preservation of the local culture. Nevertheless, these spaces are still small and do not represent the whole city's common interest.

Furthermore, as I will argue in chapter 7, the way the peasant organisations are taken into responsibility to make decisions about land usage of their territories can strengthen the existing collective governance bodies, e.g. the Commune.

Nevertheless, to analyse whether the participants' interest is motivated through individual or community welfare, lies beyond the scope of this thesis. In any case, there seems to exist a collective interest in making use of the community resources for the community's future welfare.

Summarizing the findings of this chapter, Yansa, by using a social enterprise model involving organisational, individual and collective dimensions, facilitates the access to funding, ensures affordability of the wind farm, ownership, provides capacity, and acts as an advocate to open the legal environment for community project. Furthermore the approach ensures that the community territory remains communal. The role and influence of the social entrepreneur as well as the organisational characteristics of the project are - at this stage of the project - stronger than the collective social entrepreneurial dimension. Nevertheless, this could change once the invited and self-created spaces for participation and collective action become more independent from Yansa. I therefore regard the combination of all three dimensions as an integral component of the social entrepreneurial approach of the Ixtepec CWFP.

7 FINAL DISCUSSION: CHANGING RELATIONS OF POWER THROUGH THE SOCIAL ENTREPRENEURIAL AND PARTICIPATORY APPROACH

In this chapter I will take the findings and analysis of chapters 5 and 6 to a broader discussion, interpret what they could mean and discuss what implications they could have. I will start at the local level and end the discussion at a more macro-structural level, in order to encompass the entire scale at which power relations are embedded and interconnected according to Foucault (cited in Gallagher, 2008).

7.1 LOCAL EMPOWERMENT OR INSTITUTIONALIZING POWER?

As was mentioned before, one of the reasons for the creation of new spaces of community participation, e.g. the women's and youth forums, is that these bodies are supposed to empower its members to decide over their own lives. Through these bodies the women and youth can exercise agency, which they would have been neglected otherwise. In that sense I regard the participatory approach Yansa is taking as being consistent with Guijt & Shah's (1998:1) definition of participation, which was presented in section 3.3 as the involvement of socially and economically marginalized in decisions that affect their lives.

The participation of women and youth in the community trust could result in new relations of power in favour of women and youth, since they will have access to (financial but also intangible) resources that were not available to them before. The objectives and by-laws of the community trust will give formal rights and 'voice' to both women and youth. Although these forums are still depending on facilitation from Yansa, they are supposed to work on their own and become more and more independent at some point in the future. Following Dahl-Østergaard et al.'s (2003:3) typology, active participation can be transformed into empowerment, but it requires additional training, capacity building and initiated learning processes. According to Cornwall (2008:271), as these groups take control over local decisions, they have a stake in maintaining structures or practices.

Nevertheless, the creation of these new decision bodies could also mask existing or create new power relations through forms of institutionalism and marginalisation of those excluded. Although it has been made clear that political intentions should stay outside the project, there are possibilities for other issues of power to occur. For example, the categorization of focus groups, e.g. 'women', 'youth' and 'farmers' may oversee internal differences in power and create even new ones. For example, 'women' are not an homogeneous group, but differ in many aspects from each other, e.g. opportunities, needs, circumstances, power, or influence (Department for Development, 2010:12). A classification by gender, age or profession can hide differences and inequalities in interests or needs between the groups, and hence become a form of "apolitical individualization" (Cleaver, 1999:599). An idealization in terms of trust and reciprocity within these groups, might expect cooperation and successful collective action, whereas the possibility can be overseen (Cleaver, 1999:599). Ixtepec is no exception for cross-class differences and conflicts (Williams, 2004:570). For example, some participants of the women's forum

expressed that they would not like to welcome any women from the Sierra²⁹ in the forum. Then they would rather leave the forum. Hence, the forums might create new structures of power that could lead to marginalisation of the 'outsiders' by the 'insiders'. The introduction of so many new organisational structures is therefore not without risk to induce new forms of unequal power relations.

Further, also the 'local knowledge' critique, discussed in chapter 3.4.2, applies to the way Yansa depends on local knowledge, e.g. for the needs and priorities assessment carried out by Yansa through community consulting. The results of the needs assessment will build the basis for the definition of the community trust's objectives and local development investment criteria, as well as for the project's overall success indicators that are needed to measure the social impact induced by the CWFP (e.g. for the impact investors who often demand this kind of information). Following Mosse (2001:19) who regards local knowledge as a reflection of power, a simple belief in local knowledge would then manifest the bargaining power of those who are already able to exercise it. Hence, there exists a potential risk that the results of the needs assessment would reflect only a fraction of the actual needs and interests of the targeted population: biased towards those who might already benefit from unequal power relations within the Ixtepec community. However, Yansa tries to counteract this bias by having taken the deliberate decision to focus on farmers, women and youth for the majority of the participation and benefit-sharing of the project. Nevertheless, as discussed in the previous paragraph, within these groups there exist also different power relations that could lead to biased information.

Furthermore, the relationship between the local community and Yansa as external can shape the outcome of local knowledge as I will discuss in the next section.

7.2 THE 'BIASED' ROLE OF THE SOCIAL ENTREPRENEUR

As the analysis in section 6.2 has shown, the entrepreneur brings about changes and impact that would not have been possible without him. His commitment, persistence and vision have been very important for the development of the CWFP until now. It is not that impossible to think that without him the idea of a community wind farm would have never developed that far. It is thus possible to call him an 'agent of change' as described, for example, by Martin & Osberg (2007:31).

This kind of committed leadership can, according to Dowding (2006:n.p.) increase the possibility for collective action to happen, since it can bring about the required coordination and commitment that the community itself might not be able to achieve. External help can therefore be helpful to overcome these difficulties (Dowding, 2006:n.p.) and benefit collective action.

The leadership skills and personal characteristics of Sergio Oceransky could therefore help to create trust among the people involved in the project. This could help to build Yansa's reputation as being a reliable and honest partner. According to Ostrom (2010:158), increased trust and reputation in settings of collective action can lead to increased reciprocity, hence new sources of collective action in

²⁹ The Sierra refers to the mountain range surrounding Ixtepec. More and more people who used to live in the mountains are coming to live in Ixtepec, for reasons that are out of the scope of analysis of this thesis.

the community. To create trust and reputation is a process that takes time and also relies on the capacity to build personal relationships with people.

Further, Yansa's decision to keep out of the formal political arena reflects the need to know and understand the local organisations and not to oversee local power relations (Cornwall, 2008:278). This is why a long community process as aimed for in Ixtepec can be beneficial. This approach is different from that of companies that in rush for quick realization, do not take the time to get to know the community. Throughout a seminar at the Technological Institute of Juchitán, in which I participated on 29.02.2012, the Corporate Social Responsibility representative of a Spanish wind farm developer admitted that she does not know how to get in contact with the people of a community, since every time the company announces public meetings and consultation with the community, only the political leaders show up. According to her, the contact with the 'real community', not only self-selecting leaders, is difficult and hard to overcome. The Ixtepec CWFP, on the other hand, has taken time to understand the local context, and established contacts and discussion with the farmers' organisations since the beginning and long before the decision for location of the wind farm was taken.

Nevertheless, the role and special characteristics of the social entrepreneur can also create unequal relations of power, since there lies a risk of steering the process in directions that the community actually does not want to go to or to make people take decisions that they might not be able to relate to afterwards. In that way he is not just a simple passive facilitator, but can and does shape the process and outcomes of the project (Hailey, 2001:94). Especially, due to his diverse and extraordinary qualities and skills, Sergio Oceransky is able to influence community decision-making in ways that he might not even be conscious about. This reflects the notion of 'hidden' power (Veneklasen & Miller, 2002:n.p.) exercised, for example, through rational argumentation (Saar, 2010:n.p.) or other 'milder' forms of power introduced in section 3.1.

Further, since the project's management - in both organisational and financial terms - lies to large degrees in Yansa's hands, community participation focuses more on the participation of the 'community of interest' in the distribution of benefits as was analysed in section 5.4. An increased focus on nurturing the self-created spaces is therefore important, since they are most likely to engage in collective action (Cornwall, 2008:275). This will require further training and capacity building.

Nevertheless, there are and will be opponents of the projects. For example, the president of the Agricultural Producers Association is still not convinced that the project will benefit the community, and is convinced that the benefits will be shared among a small group of people only. Actually, he is not a single case, but one out of many people I have talked to that hold (initial) prejudices against the CWFP in Ixtepec. When I interviewed merchants of the local market, some would not even like to talk to someone or something that is related to wind energy – because "these people [would] all be the same and just seek personal benefit" (merchant, interview). It would require further research to analyse whether people in Ixtepec hold prejudices against wind energy in general or the CWFP specifically – and for what reasons. During my interview I got the impression that these kind of prejudices are more common among those who are not or hardly informed about the specific characteristics of the CWFP, but simply associate it to be similar to the

private, commercial wind energy projects in the region. Normally, these prejudices vanished or at least became much less when we explained the community character of the project, how benefits will be distributed among the community and thus, how it differs from other privately-owned wind farms developed in the Isthmus.

Sergio Oceransky, not being from the Ixtepec community himself, therefore also has to face certain opposition, sometimes being called "the Spanish" or representative of a company by some people in Ixtepec. The resentment of local people towards private companies and 'development without the people' and against indigenous traditions and rights are deeply embodied in the people's memories and identities. How the Mexican history and regional experiences with companies could have shaped this aversion against any form of external influence, I will discuss in the next chapter.

7.3 REVIVING THE CAPACITY FOR COLLECTIVE ACTION?

Although the Mexican Constitution and Agrarian Code guarantee the right of collective ownership and governance over territories to indigenous communities, their actual capacity to exercise this right has decreased over the last decades. Neoliberal policies (such as NAFTA in 1994) and liberalization of markets introduced since the 1980s have changed Mexico's agricultural sector radically and have made small-scale farmers, like those in Ixtepec, increasingly vulnerable to decreasing global market prices for food crops, which has increased the number of extremely and moderately poor farmers in Mexico (Kelly, 2001).

The decreasing importance of agriculture as form of livelihood for people in Ixtepec has thus also caused a weakened role of the communal governance bodies such as Ixtepec's Commune. Sergio Oceransky sees this as the major challenge for the community process.

The biggest challenge is the fact that collective organisational processes, even though they exist, and some of them are extremely well-rooted, have been so weakened in the last decades ... by irrelevance. No young people go any more into the Commune ..., because there is not really a living to be made out of that. That is the kind of organisational structures that were strong in the past, [but] they are really at risk of dying out. (Sergio Oceransky)

He adds as another major challenge:

And then there is a large part of the community that is not at all organized and that does not have any culture, history or tradition of collective organisation. (Sergio Oceransky)

With this statement, he refers to the fact that the rest of Ixtepec's population (without roots in the agricultural sector), does practically not engage in any form of collective action at all. Ixtepec has no civil society organisations³⁰ besides political parties, trade unions, and the peasant organisations.

³⁰ There is only one civil society organisation: the Lion's Club, which has few members and lacks the financial capacity to implement more than a few small-scale projects a year (José Alvarado, interview).

According to Butcher (2010) from the Mexican Center for Philanthropy, this is a national phenomena and Mexico's formal civil society sector is, in general, weakly developed. Reasons for the weak formal participation or volunteering can (though not exclusively) be found in Mexico's history, e.g. with the Spanish colonisation which meant a change of indigenous structures of cooperation and mutual support towards Christian models (Butcher, 2010:8). Further, shortly after the Mexican independence, a 71-year long one-party regime by the Institutional Revolutionary Party (PRI) began, in which voluntary participation was realized and manipulated mostly through affiliated trade unions (Butcher, 2010:11). Since 2000, when the PRI regime ended, the civil society sector has been growing (though slowly), but still faces substantial barriers such as non-supportive legal and fiscal matters (Butcher, 2010:11). Nevertheless, there still exist strong sources of solidarity in Mexico. However, they have shifted to the micro-level, and are found today in strong personal networks with family and extended family members, which are based on reciprocity, not altruism (Butcher, 2010:18).

Many interviewees summarized their opinion about why there are not more people involved in the CWFP's activities by describing people in Ixtepec as being "apathic". Experience with fraud, kinship services and corruption throughout the PRI regime have led to low trust in the political system (Ocejo, 2011). Nevertheless, the political parties have been the major vehicle for arriving at positions of power within the communities as the following statement of Sergio Oceransky describes:

Mexico, because of colonial history, has a very strong cacique culture - 'strong man' - with power being very dominant, male and concentrated, especially in rural communities. And for the last, approximately, 100 years the key to getting into that cacique position, has been through parties. (Sergio Oceransky)

Other forms of participation in public life have thus lost importance. This can be another explanation why interest in participation in the CWFP is low. I was told in interviews that during events or activities of political parties or trade unions it is usual to receive money or some other form of immediate benefit in exchange for participation. Since the CWFP does not follow an instrumental, but transformative understanding of participation, it relies only on voluntary engagement of people.

Further, people in the Isthmus have experienced several times how national and foreign geopolitical and economic interests, which did not take into account the local people's interest or cultural heritage, have affected their lives (e.g. Call, 1998, 2003, 2011). Though of declining importance and practice, the Isthmus' many different indigenous groups still worship their cultural heritage and reject external influence when perceived as oppressing and unjust (Call, 2011).

For the Ixtepec CWFP, which depends greatly on the active participation of the community, the described lack of volunteering culture as well as the historical and recent experience of unequal power relations between external and local people and organisations could pose substantial barriers for the project's development. To build up trust among the community in the project's intentions and real participative character, is thus one of the main challenges. Working with the community of interest rather locality might thus create tensions and raise the necessary trust and support for the project.

Sergio Oceransky therefore sees the construction of new structures and spaces for collective action as a pre-requisite for the work with the community of Ixtepec.

Further, he is optimistic about the possibility to achieve this goal since collective action is part of people's cultural heritage.

[I]t is going to take time for these collective organisations to really take roots [and] get consolidated But the good thing is that the culture of people makes them see collective organisation as something that is part of their tradition, even though they don't have their own practice. And they see this as a completely logical, a sort of default way of doing things.

That is why it makes sense to do a project like this here, but it would not make sense to try to do it, for example with the white rangers of Texas. There has to be a sense of community. (Sergio Oceransky)

The CWFP could therefore bring about a strengthening of both the existing communal bodies (e.g. Commune), but also be an opportunity for new spaces of collective action to be created. The Commune would be strengthened and given new importance, because the whole CWF process depends on the recognition of the Commune as legitimate owner of the territory where the wind farm will be built. Further, the Commune and other farmers' bodies will participate in the community trust's decision-making on how to use the financial returns for local community development (with focus on the agricultural sector among others) and will thus be direct and indirect recipients of benefits. Through this approach the rural, agricultural sector could be revived and overcome the neglect it has received during the last decades.

Nevertheless, this development could also give legitimacy to the Commune and other traditional organisations whose structures are built on inequalities and marginalisation, e.g. of women and youth. As was mentioned in section 2.1, the Commune's membership is not subject to democratic processes, e.g. election. A simple reviving of these bodies could thus also lead to a manifestation of existing biases towards gender and age.

7.4 AVOIDING OR CREATING NEW DEPENDENCIES?

As shown in section 6.1, the organisational model pursued by Yansa and the community could create the necessary conditions for the community to become owner and beneficiary of the wind farm. This step would represent a huge step in terms of socio-economic development for the city of Ixtepec, since 50% of the revenues generated by the wind farm will be invested in the community's development. It is not foreseeable how the community (via the community trust) will use the money, but the objectives, criteria and by-laws of the community trust should prevent any usage of the money that is not related to the intended purpose. With the 50% that Yansa will receive, new CWFPs in other places shall be started. The result could be a multiplier effect: Yansa's 50% share could – at least partly – cover the initial financing for other community wind farm projects in other regions or countries. New CWFPs could thus face fewer problems during the initial project phase where risks are usually high and access to financing is difficult. Once the Ixtepec CWFP has proven successful, investors and banks will possibly be more willing to provide credits in the future, since there will exist experience and less risk (Chelsea Mozen, interview). Through this approach this CWF model could indeed become a viable alternative to the commercial business model of wind farms in Mexico – and potentially in other emerging or developing countries.

The organisational model that Yansa has designed for this project thus reflects an understanding of 'aid' not in its traditional sense as giving or donating money, but as long-term, rather indirect community-based investment for at least 20 years time (which is the length of the contract with the electricity utility). It is also possible and indeed the intention that this model of community investment leads to the search for additional funding by the community itself. For example, the youth and women groups are already looking for additional funding to finance their recycling project.

Further, the CWFP might be able to overcome the often diverging interests between local and global level. The case of the transition to RE exemplifies this problem; whereas the global interests are concerned with climate change mitigation, energy security and other issues, the local interests might rather be concerns about income and individual (and maybe community) welfare. In the case of the CWFP both interests could be combined without causing conflicts or unrest, because the local communities decide about their development by themselves, rather than more powerful players imposing their interests on them. Nevertheless, whether this conversion is indeed possible is subject to research in the future.

Besides such optimism there must also be space for concern. To engage in such a large-scale project (concerning the amount of debt, but also legal, managerial and technical responsibilities of the project) can expose the community of Ixtepec to even stronger forces (Jicha et al., 2011) than they were visible at the local level before the CWFP took off. The use of external financial resources to realize the wind farm project, creates new responsibilities and liabilities for the community. The amount of debt to be paid to banks and investors will not be small. Nevertheless, this risk to the community shall be minimized through setting up a guarantee trust and a legal organisational structure that will guarantee for the community in case of default of the wind farm.

Further, the external funding makes the project dependent on the goodwill of banks and social investors to invest in the community's development without exerting to high expectations on return on investment. The banks and investors for the Ixtepec project will most likely come from the USA or Europe (Sergio Oceransky, personal communication). Following the critique I raised in section 4.2, I therefore regard the financial model of the CWFP as unable to leave the capitalistic economic model, and to depend on the market mechanisms that have caused structural inequality and poverty in the first place (Greig et al., 2007). Further, the proposed debt-model by Yansa, though low in return on investment, does not overcome the problems any non-profit organisation faces concerning the value-capture problem described by Dees (1998:3-4) (see section 4.2). This is why Yunus (2006:43) called for a separated "social capital market" for social enterprises to be able to obtain the necessary funding.

Hence, the overall unequal distribution of wealth is not overcome and the question remains whether the CWFP model could be adopted in a setting where this kind of funding is not available. Nevertheless, since the CWFP in Ixtepec generates revenues that will be (partly) used for the implementation of other CWFs in other places, this might create self-sustaining stream of income.

8 CONCLUSION

The Yansa Group – in cooperation with the community of Ixtepec – has proposed a community wind farm (CWF) model that explicitly emphasizes the rights, control and participation of the local community during both the process and distribution of outcomes associated with the wind farm development. The financial benefits of selling electricity to the national grid are shared in equal parts between the community and Yansa and are invested in community development and wind farm models in other regions or countries respectively. This approach stands in contrast to the private, profit-driven, and often top-down wind energy development experienced recently in the Isthmus of Tehuantepec, southern Mexico.

To explore the functioning and potential limitations of the Ixtepec CWF model, the research questions of this thesis were: (1) what possibilities for participation are offered to the community; (2) how could the social entrepreneurship approach overcome the barriers that have prevented local communities' participation in wind farm projects in Mexico in the past; and (3) how could the SE and participatory approach shape and cause new power relations.

In relation to the first research question, the analysis shows that a variety of participatory activities is conducted with instrumental to transformative purposes. Women, youth and the peasant sector are target groups for transformative participatory activities (empowerment). This has involved the creation of new spaces for women and youth participation, which could – by time and with reducing influence by Yansa – become spaces of new collective action, thus change their character from being externally induced to self-created where people take deliberate decisions over their own lives. Nevertheless, overall participation level in these spaces is still low and possible reasons for this could be found in the historical-cultural context, which would make them difficult to overcome.

Concerning the second research question, the analysis suggests that three different dimensions of social entrepreneurship are important to overcome the financial, legal and capacity-related barriers for communities to engage in wind farm development: an organisational, a personal and a collectivistic dimension, that all complement each other. Hence, the local indigenous collective governance body's (Commune) ownership and control over communal territories could be secured, accountability to external shareholders avoided, and full amount of generated revenues be used for the local community's development and further advocacy and promotion of community wind models.

The analysis and discussion in relation to the third research question, has opened a myriad of possible implications on power relations from the local to the global level. The CWFP could give new importance to both the Commune, as well as create new spaces of collective action for sectors of the society that were not represented in the Commune, hence raise the bargaining power of women and youth in regards to the Commune and potentially the whole society. Nevertheless, this could also create new sources of marginalisation or mask existing power relations within these groups. Further, the role of the social entrepreneur, though recognized as beneficial for the organisational process and creation of close relationships and trust with the community, could also steer and change too subjectively the process and outcomes of the project with the resources he has on hand.

The analysis and discussion suggest that training and capacity building could benefit the process of turning 'invited' spaces of participation into 'self-created' spaces, where external influence is reduced and group members are more likely to have similar relations of power.

From the analysis and discussion in this thesis, it can therefore be concluded that the proposed community wind farm model could be a viable approach for the Ixtepec community to overcome the entry barriers associated with commercial wind energy models. However, lessons from this case study analysis are limited in validity since the project is still in an initial stage. Whether the Ixtepec CWF model is able to strengthen the community's capacity for collective action (Ostrom, 2010), or other related variables and concepts that measure social capital (Putnam, 1995), or community resilience (Magis, 2010:401) is subject to further studies at later stages of the project, including the application of broader frameworks, and, for example, a long-term, empirical study of the impacts of the participatory process on social sustainability. Further, a comparison of the Ixtepec CWF model with other community RE models in developing and developed countries could be useful.

With this thesis I hope to contribute to both the development studies as well as to the emerging field of sustainability science. The combination of the concepts of social entrepreneurship and participation could create new opportunities and offer new tools to design the necessary conditions and social capacity to make the transition to RE a socially just one, while responding to pressing environmental concerns.

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APPENDICES

APPENDIX 1.1: RENEWABLE ENERGIES IN MEXICO

Renewable energies (RE) still play a relatively little role in Mexico's energy composition. Due to its rich domestic petroleum resources, primarily located in the Gulf of Mexico (EIA, 2011b), the country's total primary energy supply is largely dominated by oil (65%), whereas renewable energies only make up 6.9% (geothermal, solar, and wind representing 1.7%), as of 2010 (SENER, 2011). Within Mexico's RE mix, as of 2010, geothermal is the strongest source, representing 41% of the total installed capacity³¹ of RE, followed by wind, biomass and small hydroelectric production (below 30 MW) with 21%, 19% and 18% respectively (SENER, 2010) (fig. 10). Regarding electricity generation, RE (excluding hydroelectricity above 30 MW) represented 4% (2365 MW) of the total installed capacity in Mexico in 2010, while thermoelectric sources represented 71% (SENER, 2010) (fig. 11).

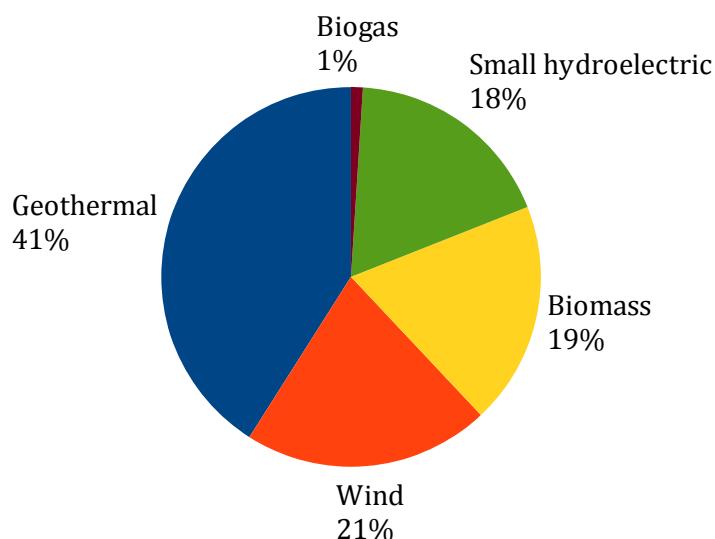


Figure 10. Installed capacity of renewable energies in Mexico (in %) (August 2010)
(Source: SENER 2010:n.p.)

³¹ Installed capacity and generation are not the same. „Capacity is a measure of how much electricity a generator can produce under specific conditions. Generation is how much electricity a generator produces over a specific period of time.” (U.S. Energy Information Administration, n.d.)

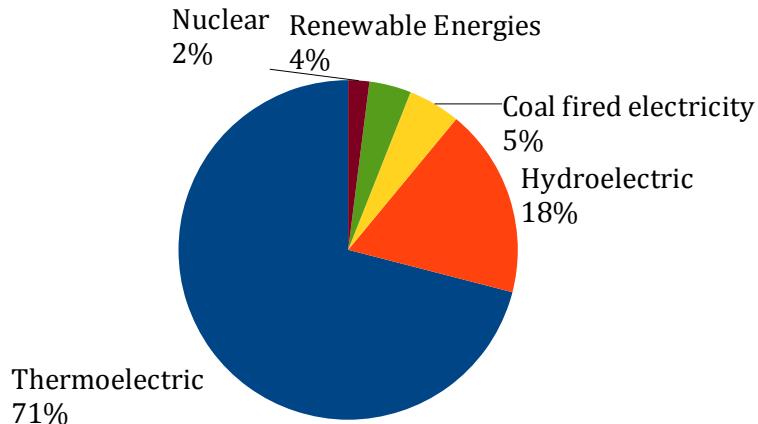


Figure 11. Total installed capacity of electricity sources in Mexico (August 2010) (in %, excludes exports and imports) (Source: SENER 2010)

Mexico not only depends on oil as primary energy source, but also as export good and source of governmental resources: In 2010, Mexico was the world's seventh largest oil exporter (EIA, 2011b), and the oil industry contributed a third of to the nation's total governmental revenues (Talwani, 2011). This can partly explain why the Mexican government has restrained from major investments in RES (apart from large-scale hydroelectricity).

Nevertheless, Mexico's 'lock-in'³² to oil in particular and fossil fuels in general, also makes its energy system vulnerable to abrupt changes or shocks to the dominant source of energy. Further, it creates difficulties to escape the lock-in, since a system transformation requires time and costly investments. Recent studies predict that the existing reserves will only last about eight more years, if continued to be exploited at the present rate of production (Talwani, 2011). This means that Mexico is under pressure to find alternative domestic energy sources in a short period of time, if to avoid an increasing dependency on energy imports and ensure energy security³³.

No enabling environment for renewable energies

Besides the described 'lock-in', another reason for the low investments in RES could be explained with the state-ownership over electricity generation, transmission, transformation, distribution and supply, guaranteed by article 27 of the constitution, and to be executed only by 'Comisión Federal de Electricidad' (CFE), the Federal Electricity Commission (SENER, 2010). Until today the government does not offer a direct supportive regulation or financial incentives

³² A 'lock-in' related to energy describes the state of an economy being "locked into fossil fuel-based energy systems through a process of technological and institutional co-evolution driven by path-dependent increasing returns to scale. [...] [T]his condition [...] creates persistent market and policy failures that can inhibit the diffusion of carbon-saving technologies despite their apparent environmental and economic advantages" (Unruh, 2000:817).

³³ According to the IEA (2012:n.p.) energy security can be described as "the uninterrupted physical availability [of energy] at a price which is affordable, while respecting environment concerns."

(such as special feed-in tariffs or tax credits) for renewable energy developers. In other countries (e.g. Germany, Denmark, USA) where these incentives are offered, RES have made much more progress and present a much higher percentage of the total energy mix (Bolinger, 2001; CSE & Hassan, 2005).

Although the RE sector has not received much attention within the national energy legislation in the 1990s or 2000s, in 2008 the Mexican government adopted an important energy reform, which included the Law for the Development of Renewable Energy and the Financing of the Energy Transition ("Ley para el Aprovechamiento de Energías Renovables y el Financiamiento de la Transición Energética", LAERFTE) and has strengthened the policy environment for RE in Mexico (GWEC, 2011; 2012). The Secretariat of Energy (SENER) was assigned to establish a program and co-work on a strategy for this law to be put into action. Henceforth, a special program for RE, as well as a national strategy for the energy transition were established. The special program set the objective to increase the share of renewable energy (excluding hydro-electricity plants above 30MW) within the total electricity supply in Mexico from 2009 until 2012. Regarding installed capacity an increase from 3.3% to 7.6% was set, and regarding electricity generation, an increase from 3.9% to 4.5 till 6.6% was set (SENER, 2010).

Wind energy is supposed to play a major role in Mexico's transition to renewable energies (Sahin, 2004). Estimations of Mexico's total wind power potential vary between 30 and 71 GW (GWEC, 2011; 2012), although the latter figure seems highly exaggerated. Regarding the problems associated with wind power generation, as to be discussed below, it seems unlikely that these high numbers can be realized. No matter how high, but wind power's economic potential has been recognized by the Mexican state as well as by private companies. While total installed capacity stagnated until 2007 at about 2.5 MW, from 2008 on these figures took off (SENER, 2011:114). In 2010, Mexico had already 493 MW installed capacity (SENER, 2010). A preliminary national wind target was set at 12 GW installed capacity (GWEC, 2012). This increase in capacity has been achieved through large-scale development, especially in the Isthmus of Tehuantepec, the location of the case study under research. Until 2011 about 1 GW capacity was installed, and at least another 1.9 GW is under development in that region (GWEC, 2012:48).

APPENDIX 1.2: A 'WIND RUSH' OF LARGE-SCALE WIND DEVELOPMENT IN THE Isthmus

Within Mexico, various regions are suitable for wind power generation, but "(t)he region with the best prospects for wind development is the Isthmus of Tehuantepec" (GWEC, 2012:48). In this area the mountain range 'Sierra Madre del Sur' drastically descends from a mean height of about 2000m to about 250m above sea level, opening up an about 40km wide tunnel (Romero-Centeno & Zavala-Hidalgo, 2003:2628). The barometric pressure difference between the Gulf of Mexico (a high pressure zone) and the Pacific Ocean (a low pressure zone), creates strong winds from the north to the south blowing through this tunnel at wind speeds sometimes exceeding 120km/hour (Romero-Centeno & Zavala-Hidalgo, 2003:2628-2629). It is estimated that about 10 GW of total capacity could be developed in the Isthmus (GWEC, 2012:48).

Attracted by the Isthmus' high wind capacity factor³⁴, which makes even state subsidies unnecessary to secure profitability, state and private companies have started a literal "wind rush" (Vance, 2012:n.p.) to secure territories for wind farm development in the region. Whereas in countries such as Denmark and Germany, the wind energy development was mainly driven by community-based models (Bolinger, 2001:1), in Mexico mostly large-scale, privately-owned wind farm projects have been developed. One of the possible reasons for this is that the Mexican energy policy provides legal opportunities and indirect investment incentives for large-scale, private wind developers (GWEC, 2012:48), but not the necessary legal and financial enabling environment for small-scale, community-based approaches. Thus only companies with the financial capacity and managerial experience to conduct large-scale projects are able to participate in the Mexican wind energy market.

In 1992, the state-controlled electricity sector was opened for participation of the private sector in one of the following five cases: for self-supply, independent production, small production, export or import of electricity (SENER, 2010:n.p.). The self-supply scheme, which allows consumers to produce electricity for their own use, has become the most commonly used form of private sector engagement in the Mexican wind energy market (GWEC, 2012:48). In the Isthmus it was adopted by corporations such as Coca Cola, the Mexican subsidiary of Wal-mart or Cemex, one of the world's largest cement producer, to take advantage of the strong winds in the Isthmus and produce cheaper energy than provided from the national grid. These corporations don't have the capacity or intent to build and operate the wind farms by themselves. The majority of wind farms is therefore in hand of foreign (mostly Spanish) wind developers or mixed Mexican-foreign consortia (Oceransky, n.d.), that build and operate the wind farms and sell the wind energy to CFE, which provides its grid as electricity 'storage' for the private companies. This model has allowed Mexico to quickly increase its share of installed wind energy capacity, despite its lack of technical skills, manufacturing base and

³⁴ The wind capacity factor "is a measure of how often an electric generator runs; it compares how much electricity a generator actually produces with the maximum it could produce, during a specific period of time". (U.S. Energy Information Administration, n.d.). Due to the continuous wind in the Isthmus, the capacity factors in the Isthmus are in the range of 40% (GWEC, 2011), much higher than the average capacity factors in Germany or Denmark, which are estimated at 18.3 and 22.8% respectively (Boccard, 2009:2681).

financial capacity. Wind energy development in Mexico has also been supported through grants and credits provided by the World Bank and other development banks (e.g. World Bank, 2006).

Besides the domination of the wind energy market by only large players, another problem is that the rights and interests of the communities, that live, work or have other attachments to the land on which the wind farms are built, are not protected by the existing legislation (Oceransky, n.d.). The different indigenous communities that live in the Isthmus, out of which Zapotecos and Huaves are the most numerous group, are most affected by the recent wind energy development (Oceransky, n.d.). Their land is in many cases still communally owned and organised by so-called 'ejidos' or 'communes', a system which combines individual land use with collective property (Oceransky, n.d.). Though land can be used individually, any change in ownership has to be decided on collectively by the traditional governance bodies formed by proprietors and or local leaders (Vance, 2012a). Indigenous communities' territorial rights and ownership are formally recognized and protected by the Mexican constitution (article 27), the National Agrarian Code, as well as international treaties such as the Treaty 169 of the International Labour Organisation. Nevertheless, not all communities strictly apply or enforce these possibilities, and have treated the land as if it was private. In fact, the distinction between private and collective ownership and usage is quite diffuse in many cases.

Since communal land cannot be sold, wind developers have to lease the land. There are many cases reported in which companies bypass the communal bodies and negotiate land lease contracts directly with the land user (Castillo Jara, 2011; Vance, 2012). By avoiding the collective decision-making process, the companies' activities lack transparency and provoke mistrust by and between community members. Another accuse is concerned with the poor contract conditions offered by the companies, e.g. the low amounts paid to compensate for the temporary or permanent loss of land, or restrictions imposed on the peasant's rights of land usage or access to land (Castillo Jara, 2011; Vance, 2012a). Hence, the recent development of large-scale wind farms in the Isthmus is increasingly creating conflicts between companies looking for access to land and communities which want to keep control over their territory, and also want to defend their resources and livelihoods. In fact, this process has been facilitated by the Oaxaca state government which is blamed for having (secretly and without consulting or informing the affected communities) divided the Isthmus among the big wind developers and utilities - a severe violation of the communal ownership right on territories of indigenous communities in the region (Castillo Jara, 2011). As Oceransky (n.d.) argues, this cartel-like group of companies has been approaching the communities equipped with almost exclusive rights to certain areas, and been able to impose their terms of business on the local communities, sign almost exploitative contracts starkly in favour of the companies' interests and not the communities. The latter could then only choose to participate under conditions dictated by the companies or to forgo any opportunity to 'benefit' from the potential investments - a power mostly able to be exercised because of the precarious situation many people live in. Bargaining power is unequally distributed between the big companies and local people as the following quote from Vance (2012:n.p.) illustrates: "Many locals who have given up land are illiterate and not savvy about the process".

This is not to say that the wind business in the Isthmus is all bad, or that all private business models have had only negative impacts. Some companies have, indeed, brought (at least temporary) employment, invested in public infrastructure, e.g. built or extended roads, and provided other community services (Vance, 2012). However, this 'engagement' can be classified rather as 'Corporate Social Responsibility' than a deep concern for the local needs and problems.

In any case, the overall impression of people is that decisions that affect their lives are taken by other, more powerful players, on the back of local people, as well as that the compensations received provide too little benefit for the communities while the lion's share of surpluses is taken away by the companies. The experiences in the Isthmus show that the model and strategy pursued so far within the wind energy development in the Isthmus has failed to incorporate the communities both throughout the process (information, consulting, decision-making) as well as in redistribution of benefits.

The community reaction

The experiences made between the private wind developers and the historically marginalized indigenous communities in the Isthmus, have led to increasing distrust, opposition and rejection of these biased deals and wind energy projects of the current layout (Vance, 2012). Throughout the last years, information campaigns, demonstrations, and road blockades against wind farms have become more and more common and sometimes even violent, leading to one casualty in October 2011 (Oceransky, 2012:40; Vance, 2012:n.p.). Organisations like the 'Assembly of Indigenous communities of the Isthmus of Tehuantepec in Defence of the Land and Territory' and others want to raise awareness on these issues and support communities in defending their communal territories (Castillo Jara, 2011). As a result of the protest, several communes/ejidos of communities in the Isthmus (e.g. San Dionisio del Mar) have already decided to not lease their land to the wind developers that approached them (APIITDTT, 2012:n.p.). This has led either to the end or at least delay of some of the planned wind projects in the region (Yansa, 2012).

Oceransky (2012:40) interprets this resistance as not being targeted against wind or renewable energy in general, but against the non-participatory, top-down and profit-driven approach of the private wind farm developers that often do not respect indigenous land rights over territories. According to Bettina Cruz Velázquez, member of the 'Assembly of Indigenous communities of the Isthmus of Tehuantepec in Defence of the Land and Territory' (APIITDTT), the scale of the wind farms in the region is another concern: wind farms in the Isthmus usually have installed capacities bigger than 50 MW and some over 200 MW (Oceransky, n.d.), which goes far beyond a possible self-supply of local communities. Further, it is also a resistance against a form of development that was not chosen by the communities themselves, but imposed on them. Hence, Bettina Cruz Velázquez (as cited in Oceransky, n.d.) fears a further erosion of indigenous cultural identities and traditions, since she regards the current economic development practices as attacks on the autonomy and capacity of the indigenous people to decide collectively about their future.

APPENDIX 1.3: LIST OF FOCUS GROUPS, PRESENTATIONS AND FORUMS

District of Ixtepec	Accompanied by whom	Date (DD.MM.YY)	Average occupation of the participants	Total no. of participants	no. of participating men	no. of participating women	no. of young people (<30 years)	no. of surveys conducted
Focus groups in form of neighborhood meetings: 8								
First Section	Vicente Vásquez	01.02.12	farmer, house wives, retired person	12	3	8	1	0
Chigigo Juarez	Vicente Vásquez	07.02.12	farmers, house wives	24	16	6	2	0
Chigigo Zapata	Dalia Cabrera	08.02.12	house wives, employees	14	7	5	2	0
La Chixhopa	Vicente Vásquez	09.02.12	farmer, house wives	8	1	5	2	0
Colonia Moderna	Vicente Vásquez	10.02.12	employees, house wives, retired person	8	3	5	0	8
Third Section	Samuel Herculano	15.02.12	students	11	0	0	11	0
Colony 5 th of February	Samuel Herculano	21.02.12	majority: house wives & children	~40	~2	~28	~10	0
Third Section	Samuel Herculano	29.02.12	majority: house wives	12	0	11	1	0
TOTAL number of participants in neighborhood meetings				approx. 129	approx. 32	approx. 68	approx. 29	8
Focus groups in Carrasquedo and Zapote: 2								
Carrasquedo	Samuel Herculano, Vicente Vásquez	15.02.12	farmers, house wives	11	8	3	0	0
Zapote	Sergio Oceransky, Samuel Herculano	20.02.12	farmers, house wives	7	5	1	1	0
TOTAL number of participants in Carrasquedo and Zapote				18	13	4	1	0
Focus groups/presentations with organisations: 5								
Lion's Club	Vicente Vásquez	04.02.12	n/a	19	6	13	0	0
CECYTEO (high school)	Vicente Vásquez	07.02.12	teachers and staff	12	9	3	0	4
Taxi Driver Organisation St. Jerónimo	Vicente Vásquez	18.02.12	taxi drivers	~ 100	~100	0	0	0
Sorghum farmers	Sergio Oceransky	22.02.12	'part-time' farmers, employees	7	7	0	0	0
Cattle Raisers Association	Sergio Oceransky, Samuel Herculano	23.02.12	('part-time') cattle raisers, employees	6	6	0	0	0
TOTAL number of participants in meetings with organisations				approx. 144	approx. 128	16	0	4

Continued on the next page

Interviewee/ Forum	Accompanied by whom	Date (DD.MM.YY)	Average occupation of the participants	Total no. of participants	no. of partici- pating men	no. of partici- pating women	no. of young people (<30 years)	no. of surveys conduc- ted
Individual surveys								
Merchants of local market	Samuel Herculano	13. & 14.02.12	merchants	12	4	8	0	12
Students	--	10.02.12	students	3	0	0	3	3
Angel Herrada Espinosa	--	14.02.12	retired	1	1	0	0	1
TOTAL number of participants who filled in the survey				13	5	8	0	16
My participation in Youth and Women Forums: 3								
2 nd Youth forum	Sergio Oceransky, Samuel Herculano	25.02.12	students	14	0	0	14	0
2 nd Women forum	Sergio Oceransky, Vicente Vásquez	27.01.12	house wives, student, merchants, employees, retired	18	0	17	1	0
3 rd Women forum	Sergio Oceransky, Samuel Herculano	24.02.12	house wives, student, merchants, employees, retired	11	0	10	1	0
TOTAL number of participants who participated in the Youth and Women's Forum (January-February)				43	0	27	16	0

APPENDIX 1.4: LIST OF SEMI-STRUCTURED INTERVIEWS

Organisation/ Affiliation	Name of Interviewee	Occupation/Position of Interviewee	Gender (M=male, F=female)	Date of Interview (DD.MM.YY)	Interviewer(s)
Farmer's bodies	Baldomero Rosado	President of the Commune of Ixtepec	M	10.02.12	Myself
	José Concepción Manuel Vázquez	President of Agricultural Producers Association	M	06.03.12	Samuel Herculano
Municipality of Ixtepec	Felix Serrano Tolero	President	M	20.02.12	Myself, Samuel Herculano, Sergio Oceransky
	Ángel González Vázquez	Director of the 'Casa de la Cultura'	M	20.02.12	Myself, Samuel Herculano
	Manuél de Jesus Molina Pinera	Director of Economic Development department	M	28.02.12	Myself, Samuel Herculano
	Reymundo Antonio	Director of Planning department	M	28.02.12	Myself, Samuel Herculano
	Sergio Pineda	Director of Ecology department	M	01.03.12	Myself, Samuel Herculano
	Jorge López Cabrera	Director of Public Health department	M	01.03.12	Myself, Samuel Herculano
Other organisations	Franz van der Hoff	Member of the Union of Indigenous Communities in the Isthmus Region (UCIRI)	M	23.02.12	Myself, Samuel Herculano
	Karla Miranda	Migrants' shelter 'Hermanos en el camino', Ixtepec	F	24.02.12	Myself, Samuel Herculano, Chelsea Mozen
	Lucila Bettina Cruz Velázquez	Founder of the 'Assembly of Indigenous communities of the Isthmus of Tehuantepec in Defence of the Land and Territory'	F	22.02.12	Myself, Samuel Herculano
	José Alvarado Girón	President of Ixtepec's Lion's Club	M	27.02.12	Myself, Samuel Herculano
Local initiators of the CWFP	Juan Rodriguez Cabrera	Working for the Federal Cattle Raisers Association	M	26.02.12	Myself
	Vicente Vásquez	Retired	M	continuously	Myself
Farmers	Fidel Hernandez Palomec	Farmer with irrigated land	M	19.02.12	Myself, Sergio Oceransky
	Timoteo Vásquez Palomec	Working as day labourer on irrigated fields	M	19.02.12	Myself, Chelsea Mozen
	Gonzalo Martínez	Farmer with irrigated land	M	19.02.12	Myself, Chelsea Mozen
	Arturo Barreda Velázquez	Farmer and cattle raiser, living on an isolated ranch	M	23.02.12	Myself
Yansa	Chelsea Mozen	Director of Yansa Foundation	F	24.02.12	Myself
	Sergio Oceransky	Founder and CEO of the Yansa Group	M	04.03.12	Myself

APPENDIX 1.5: INTERVIEW WITH SERGIO OCERANSKY

Date of interview: 04.03.2012

Sergio Oceransky is the founder and CEO of the Yansa Group

Q1: How would you describe your role in Yansa, CIC and foundation?

More than anything else I am a catalyst. Basically, the role that I played so far has been much more than I would like it to be. I have been doing many different things, but that is because of the conditions that we started to work [in]. I've been at the same time directing both the CIC and the foundation, and dealing with the authorities, working with the community, the investors, technology partners, the engineers, and working with other partners on all kinds of issues.

This is too much. This is not the role I would like to play, but this just because at the beginning there were no resources to pay for other people to do the work. This is like a puzzle with many pieces that have to follow together. So to get them to move you have to get all the pieces to move at the same time. If you just move a few pieces, then it becomes a totally different project. Towards the future what I would like to do, is to focus primarily on the work with authorities. I believe that in the future stages of Yansa's work, influencing policies is going to be a major objective. I will remain in contact with investors and communities, but rather check on how things are going, but not taking responsibility for that. And also opening new fields of work in different areas and activities for the future, and also working on the interaction between the different pieces, having the overview of how the different parts of Yansa and different stakeholder link to each other and different people taking responsibility for each area.

Q2: Why did you think it was necessary to create your own kind of organisation to do this work?

Most organisations that work on community renewable energy are working on a market niche that is actually not disputed by the utilities. They are off-grid communities with no financial resources, they are very poor communities. This is a really important sector, it is key to work there, because there are literally billions of people that do not have access to electricity, and this is a major poverty factor. A lot of work is focused on that, there is funding for that. There is already a system in place to work on a community-based model in that particular sector of renewable energy for electrification.

Or they were doing community-based renewables, but in communities that can provide the equity, that have financial means, like the case in Germany or Denmark. But there was a vacuum, of people working on large-scale utility scale renewable energy projects in partnership with communities that do not have the financial means to invest. But this is the key part in terms of the territorial dimension of renewable energy. That territorial dimension of renewable energy is conceived as a key resource for future development, [and] is a key aspect that opens up possibilities for more just, more democratic energy systems in the future. That was the part I felt was missing. No organisation was really doing any serious work on applying consistently the community model in this area. There was some work being done to improve deals for communities, to get a little bit of a better deal for

[them]. But I wanted to push for a truly community-based model in a context where communities cannot provide any equity and there was no one working in that space.

What we are doing is all about innovation. Finding a company model which could be applied to large-scale project financing, in a way that balances the interest of the community that you are working with, the interests of the investors whose main concern is the implication of the model and who just look for safe investment opportunities and ourselves as well. Our concern is the community that we are working with, but also making sure that this is not just one beautiful story, but we want to be this to be a model that grows and takes make up a substantial part of the energy system.

Q3: Would you describe the model that Yansa is applying as a social enterprise?

It is a social enterprise. It is a company that has social objectives, but the terms of social enterprise can mean many different things. We went to the point of registering in a place where the only legal figure exists that we know that can do for-profit activities, that doesn't have shareholders and makes sure it doesn't do that. In that sense it is a little bit different than the normal concept of social business where you work for profit, but also for social and environmental objectives. Yansa's activities as such are not for profit. We do produce profit, but the profit goes into replicating and expanding the model to create more social value.

Then we have to work with investors, and we have to provide a return to the investors, but we separate that from the ownership and control over the assets. They just get the money back with an agreed interest. Yes, it is a social business, but different from the normal conception of social business.

Q4: Why were you not interested to apply a business (conventional) model to the project?

The accountability and control in the conventional business model is completely biased towards investors. The extent to which other stakeholders like the community, the environment, etc. is fully under control of the investors. They are the ones who decide. So you can have a really nice social business, but if it gets extremely successful, and can create a lot of wealth, you will have a really hard time to protect the mission, because investors have the complete control. This is why went for a legal figure, where the mission cannot be violated. You cannot have a mission drift. There is certainty over that.

Q5: Do you see yourself as a social entrepreneur?

I am a social entrepreneur, because I am doing something that can be considered a social business. But I am also very critical of the glorification of social entrepreneurship as the magical solution for all our problems. This is not true. The social business model has a lot of limitations. In most of the cases, even though it is way better than business as usual, there are still big issues of ownership, accountability and control and being in balance between different stakeholders and sources of interests. And the way social entrepreneurship and especially the impact investment sector is developing is very worrying, it is just seeing poverty as a business opportunity. And this is disgusting, and besides, this is not how to work.

Q6: What does sustainability mean to you in this project?

It is not a definition, but rather my own personal approach on sustainability. Basically, the turbines we are going to use are the same machines that other people are using. But the main focus in this approach that makes it different from others is especially a focus on relations of power. It is not just about more of money going into the community, but it is about who controls the process, the assets, the decision-making. When you are talking about renewable energy, you necessarily talk about territory, and then issues of power and control are absolutely essential. In my opinion, any renewable energy projects, even the ones that are more socially aware, that do not acknowledge and recognize the importance of the territory and territory control, and the community dimension, and we are talking about territories inherited by indigenous communities, it is not sustainable, they do not work.

Q7: Why did you decide to do a park of 100MW?

Is it because CFE does not provide any contracts below 100 MW?

Yes, but we also want to make it clear that communities can undertake the same scale of projects as large corporations. For me being faced with the only option of going for 100 MW or nothing was not a reason to have less enthusiasm for the project, but it was actually ok. This is [then our] framework, although it has its side challenges, because it will require a lot of work, a lot of persuasion capacity and a lot of everything to get from zero to 100 MW in one go. But at the same time it also has its very positive side affect, which is that if you go for 100 MW and you succeed, then you can go for whatever. You are exactly in the same league as the biggest developers of wind turbines in the world. And that is good.

Q8: What are the challenges to bring such a large-scale project to Ixtepec?

Actually, it is formally a matter of scale, since you would have to go through the same organisational process for a wind farm of 10 megawatts. It does not really change the amount of work that you would have to do in terms of preparing the community to deal with 2.5 million pesos per year or 25 million pesos of year.

Q: But the interests can be very different in a project of 2.5 to 25 million pesos project, isn't it!?

But actually I see that as a really positive thing. In my opinion, why collective governance structure have been loosing weight and power, particularly in the context of Mexico, is because what they collectively own and have, the value of that has been eroded by changing patterns e.g. from rural to urban areas (of not being able to make a living from agriculture). All this process has meant that the governance of the commons is getting more and more irrelevant, because the commons are getting less and less irrelevant. That is why in many situations the 'ejidos de comunidades' only survive, because there is such a deep culture; that people identify so deeply with this collective management and governance structures that they do not abandon them, even though they know that they are poor by doing what they are doing. In order to revive this tradition and get new and young people interested you have to bring real value to the commons, not marginal, but real value.

I think by bringing a project of this kind that can really transform the community and that works with the community in order to develop the structures and practices to be able to manage that, [this] is actually more feasible [because] you can completely transform [the] community instead of [being able to offer] some money with which you can do [only] some things. Because then the amount of enthusiasm, involvement, commitment, in my opinion, would be very different. It would be very difficult to mobilize the community in the way it is getting to be mobilized [now]. Now already with the farmers, who know about [the project], and other people that know about it, care for it. [This] is not a self-evident result, it is a result that is there because they have come to appreciate the relevance of it.

And it can actually also be helpful to work on such a large-scale project in terms of having access, to get technology, to even get voluntary help from people who have other experience in the sector. Because it is not the same thing to work on a small project than to work on something that hopefully can become a game changer. It helps. It is difficult, no doubts about that. But the large-scale, even though its biggest challenge is getting all this money, but for many other aspects it makes it more viable and realistic.

Q9: Now a rather general question. What is your world-view? How do you see the world and how problems are created and can be solved?

Power plays a very important role. In determining positions of power, history plays a very important role. The more opportunities you have, the more opportunities you are more likely to get; or the less opportunities you have the more likely you are to get stuck at where you are right now. Suddenly, in a situation where there seems to be very little hope of getting out of because you have a long history of being praised, marginalized, robbed of your resources, etc., then something that is really like barely within your control provides an opportunity of this kind. That is - why for me - it represents almost a moral imperative to do whatever is possible to avoid that history repeats itself and that this again leads to resources getting stolen, [people] losing their rights. and so on. Power has a lot to do with history, but it also has to do with organisations. And that is why, for example communities in Mexico were able to improve their situation, at least in terms of access to rights and access to property and stability of those rights, through the Mexican revolution, through a process of organisation. But then the organizing process has been so hijacked by power groups, that they are losing this position. That possession of power was just like a moment in history, although it continues to some extent, for example in the initial process of the 'ejidos de comunidades'.

I also see this as a fantastic opportunity not just to reassert the rights over resources, but also to realize how important organisation is. I mean, opportunities do not fall out of the sky. It is not just a matter of having a resource and by some sort of magic this is going to result in an improvement for your community or social group. You really need a good organisational process, consciousness and collective articulation.

Q10: What do you see as the biggest challenges in the local community process?

The biggest challenge is the fact that collective organisational processes, even though they exist, and some of them are extremely well-rooted, have been so weakened in the last decades.

Q: Weakened by what?

Weakened by irrelevance! No young people go anymore into the Commune or very few into the APA, because there is not really a living to be made out of that. That is the kind of organisational structures that were strong in the past, and they are still strong, but they are just getting old. And they are really at risk of dying out. And then there is a large part of the community that is not organized at all and that does not have any culture, history or tradition of collective organisation. This has to be built. The good thing is that it has to be built on a cultural substratum that is receptive to that. But it is going to be a process, it is going to take time for these collective organisations to really take roots, get consolidated, go over crisis and get stronger out of the crisis, etc. It is a challenge. But the good thing is that the culture of people makes them see collective organisation as something that is part of their tradition, even though they do not have their own practice. And they see this as a completely logical, a sort of default way of doing things. It is a good basis to work on.

Q: So you think it could be rebuilt?

Yes! That is why it makes sense to do a project like this here, but it would not make sense to try to do it, for example with the white rangers of Texas. There has to be a sense of community.

Q11: What other difficulties do you see?

If the organisational process is strong enough, [any problem] can be overcome. Obviously, the moment this starts and it goes well, it is going to raise a lot of concern from commercial wind farm developers, because it will just expose their disastrous social record, and it would expose the fact that things can turn out differently, and perhaps there would be pressure, etc. But if the community is strong, no problem, we can overcome all of that. All the factors that I see that are really relevant I see them being primarily related to the community, for instance to what extent political parties will jump into this one once they see that this is really working. But if the community process is strong enough, no matter how much they want to jump into it, the community will defend it.

Q: Do you think the community is already strong enough now?

No, but I think it is on the way of becoming strong enough.

Q: What is missing to make it a more community-based project?

We just need to continue with the awareness raising process, and involving people. And especially I think it will get much stronger once we get the contract [with the state electricity utility]. A lot of people are sitting on the fence right now, supporting from a certain distance, but not really getting involved. And they won't really get involved until they see that it is real. But once it is, I think it will be a strong process.

Q12: What do you think how it could be possible to create more ownership by the people? To make it their project, not a Yansa project?

It is funny - we have not really thought of the technical form yet. Because, at least for me, in my head, the wind farm is one thing, but the real thing is the community development process. So I was much more focussed on that. And thinking "Ok, the wind farm, we will deal with that." But this idea arose now little by chance to create a space where people can also learn about the wind farm, not just about the community development process, and start feeling more connected to this part of the project. I think that can help.

But I still think there is still a lot of work to be done, in passing on this message that to be involved, you do not need to know anything about wind [energy]. This is not about the wind farm, but about community development. But this is a message we only recently started to work on, because until now we did the mistake of talking about this as a community wind farm project, and therefore a lot of people think it has nothing to do with my life anyway. And now we work more on awareness raising of the fact that the main thing is not the wind farm. But if they want to know more about the wind farm, there is also a space for that. But the main thing is the community organisational process. And they certainly do have to play a role on that.

Q13: What are the main means to integrate more people in the community organisational process?

If the youth forum and women forum, weak and initial as they are, get something off the ground, that will be very powerful. I think at this point it is obviously necessary to continue bringing in more people, but it is also really a priority for those people who are already in to feel that there is a real space for articulation, action, creation and participation. If we just continue growing the numbers of people involved without moving into concrete action, it could also be seen as only hot air. So, it is necessary to get things to start moving. And on the basis of that go and talk to other people. This will show that we are working on content, on concrete [things]. But as I said, I think, the real strengthening of the process will happen once we win the contract [with the state electricity utility]. A lot of people will not really get involved before that. But what we need to do is to create already the practices and the structures than can incorporate all this people when they jump in. And we still have a few months for that.

Q14: How to make sure that a large diversity of community is involved? What are the criteria of diversity of this project?

This question of power also applies to work with the community. We are not equal. No one is equal in society as large, there are always different positions of power, this is as true for Ixtepec than anywhere else. Some people have easier access, while other have a harder time. That is why I think it is legitimate to first focus on farmers, women and youth, and then to see how to incorporate other sectors. Also, this project cannot be expected to solve all problems of all people. The community organisational process hopefully will be strong enough to incorporate many different actors and stakeholders, and to really welcome different sectors. Another question is how the resources will be used. There will be a bias towards peasants, women and youth and these focus groups, which I think is legitimate and it has to

be clear, and I think it is clear to people, almost. The organisational process can be very inclusive. For me it is certainly a priority right now to focus on these sectors, but also to open up for the rest of society, but that is actually the part where it gets very, very complicated, because that is where it is much more difficult to avoid political operators coming in and taking over the process. So you have to make sure when you open up to the rest of society, you [involve] already enough of the rest of society that will take a very active approach and will ensure that the project remains out of the hands of political operators.

Q15: Do you know why people in Mexico are so political?

I think it has to do with history. Mexico, because of colonial history, has a very strong cacique culture - 'strong man'. Power [is] very dominant, male and concentrated, especially in rural communities. And for the last, say, 100 years, the key to getting into that cacique position, has been through parties. Especially PRI has been very effective at turning everything else either into an appendix of PRI or suppressing it of its existence. That has shaped the culture. A lot of people want to be part of that, because they have seen it work for the personal interest of political operators in the past. And a lot of people who have tried something different have failed. It is a very strong force. You just have to know that it is there and have to have a good strategy to give it a check. A good thing is that there are a lot of people who do not want this any more and are ready to give a fight. But you also need to be careful about picking your strategy.

Q16: What kind of projects would you like to see implemented through the Community Wind Farm Project?

I think there is a number of things that are completely self-evident for the farmer's sector. Like solving the issues with middlemen, for example, for those who grow sorghum, [since these middlemen] take advantage of poor farmers.

Then [there is] another thing that would make a lot of sense, but would take a lot of time, and I do not know if it can be possible. [Ixtepec has] fantastic land and fantastic water, but because of the way irrigation is done, it ends up wasted. It is a very good system, and it is very culturally rooted, which is fantastic. But I also think that they could produce a much wider variety of products for their own consumption, as they used to. There used to be a lot of vegetable production here, but now it is primarily corn and sorghum. It can be done especially well if you change the water management system.

Concerning the rest of Ixtepec, setting a strong basis for a business incubator to diversify the economy, would be great. This could provide real support, knowledge, skills, and financial help. Also I love their cultural products.

Q17: Why is it the Isthmus of Tehuantepec / Ixtepec where the first Community Wind Farm project will be realized?

The Isthmus is like the global laboratory of how the energy transition is going to turn out for the historically oppressed communities in the best wind resource areas in developing countries, but also in other countries as the US or Canada. Because here the wind is so fantastic that the transition is already driven by the market.

That is why this is like a global experiment. The same things that are now happening in the Isthmus, will in the future happen in many places around the world. And then, if we are not ready to provide an alternative, the same thing will happen: communities will get screwed over, there will be huge conflicts, there will be people dying, etc. So it is really important to develop an alternative and develop it here, on the spot, in the real conditions that we are going to find in many other places around the world.

And why Ixtepec? Because they wanted it! They decided that they wanted it. It is like a dream!

APPENDIX 1.6: INTERVIEW WITH CHELSEA MOZEN

Date of interview: 24.02.2012

Chelsea Mozen is the director of the Yansa Foundation

Q1: What is the role of the Yansa Foundation?

The foundation is responsible for all of the community work, all the work that has to do with the community, development projects, training, etc.

The vision is that, once we are really up and running, the foundation will be the one that will make connections with communities in the future, if they are interested in such a project, to go and do outreach, talk with people about the idea, perhaps to start trainings with them. Basically to do all the work that Sergio has been doing here in Ixtepec with the Commune and beyond, which also includes developing capacity for such a project.

We also want the foundation to do general work around renewable energy and how the transition to renewable energy can be a just one, which would include advocacy, outreach, etc.

Now it is all about getting this project off the ground, but later on the activities will be more diverse.

The CIC covers everything technical in terms of building the wind farm.

Q2: How do you plan to use the 50% of the surplus share?

Right now the plan is to build a fund that will guarantee future projects. If we have money already built up, investors will feel safer investing in other projects, because we will have money on hand that can guarantee their investment. It will make it easier to find investment and it will also lower the rate at which people would be willing to invest. That is why it is important to build that fund.

But I also think that in order to do another project we will require the type of work that has been done here over the past year. So perhaps with a positive track record we can seek donations or grants for that work, or maybe some of that money to fund that work will have to come from the profits of the first project. That's something we will have to wait to see. But definitely, as you see here, we can not expect things to happen without any money.

Regardless, the primary purpose of that money would be to build up the guarantee fund. My understanding of the guarantee fund is that it is to guarantee future projects, but also to serve as a guarantee for the Ixtepec project. But the primary purpose of developing a lot of money in the fund is for future projects.

We still have to decide exactly about the fund and its structure and if a portion of that money will go back to the foundation for its work, although we hope to cover that money with grants. If we are not able to get that money from grants, we still have to somehow fund the work with the community before we start the project, and that is what the money could then fund.

Q3: How do you see the role of Sergio, in the foundation, CIC and community approach?

His contribution is invaluable! Nobody would be anywhere without him in the project. I hold the belief that things come about because people come together and do things together, but in reality at this time it actually has come down to one very committed person. Without his vision and his ability to believe and think beyond what is immediately possible, we wouldn't be anywhere in this process. He has been absolutely essential to creating what the project is now.

Q4: Is Yansa a social business for you?

No, it is not a social business! It sounds like a co-opted term, a lens through which you see a business. Profit is not the bottom-line in this project, like it is in businesses. Obviously, the community would not engage in the project if there was no money coming from it. But it is not about profit as such, and we would never sacrifice anything we believe in for the sake of creating more profit. In that sense it is entirely not a business, so definitely not a social business.

For me this approach is another way to enact change. It is not about creating a business, it is not about my livelihood, about finding a salary. I definitely have to live, everyone has to live, but this project is all about finding a way to create change!

Q5: Is Sergio a social entrepreneur for you?

For me, he is not an entrepreneur. Although he is in the sense because he has all the qualities you would commonly attribute to an entrepreneur - he has a vision, he has the desire and ability to make things happen, he is intelligent - all of these things technically make him an entrepreneur. However, my feeling is that all of his life he has been seeking ways to create change and bring about justice in the world.

APPENDIX 2.1: DESCRIPTION OF THE AGRICULTURAL SECTOR AND PEASANT ORGANISATIONS OF IXTEPEC

Besides the Commune, also the **Agricultural Producers Association (APA)** possesses considerable formal and informal power. The APA encompasses those farmers who have land in irrigated, not rain-fed areas. Founded in 1898, when the first channels of the irrigation system were built by farmers with the aim to divert parts of the river 'Rio de los Perros', it is now Ixtepec's oldest collective decision body. APA members, about 310 farmers, collectively decide on any activities related to the irrigation system, and contribute collectively to its maintenance. According to the Mexican National Institute of Statistics and Geography (Inegi) (2009), Ixtepec has a total planted area of 2656 hectares, divided into 808ha (30%) of irrigated area and 1848ha (70%) of rain-fed area. Whereas the former areas can be harvested twice to three times a year, the temporary fields are usually productive only once a year. According to José Concepción Manuel Vázquez, the president of the APA, there exist even 400 additional, but not planted hectares of land with access to irrigation. The size of land owned per peasant varies from half a hectare up to 22 hectares maximum. Few farmers possess modern agricultural machines. Many still work with simplest manual methods, supported by a team of oxen. The Commune possesses a few tractors and other agricultural machines, but which are insufficient in numbers during agricultural peak seasons. APA members, similar to rain-fed land owners, primarily grow corn, beans, pumpkins and sorghum. Except sorghum, all other plants are only used for self-supply (José Concepción Manuel Vázquez, interview).

Farmers who are also raising cattle are united in the **Cattle Raisers Association (CRA)**, which exists since 1951 (Daniel González Alonso, interview). The CRA has about 100 members who together hold about 1400 cattle, which means that herds are generally small. According to Daniel González Alonso, secretary of the CRA, there are no farmers who only live from raising cattle. It is rather seen as a complementary, not as a full-time job. Meat is used for own consumption purposes or seldom sold on the local market.

APPENDIX 2.2: SOCIO-ECONOMIC BACKGROUND OF IXTEPEC

The city of Ixtepec consists of 9 sections, out of which four are mostly inhabited by farmers and their families. Furthermore, there are two municipal agencies, the villages of Zapote and Carrasquedo, which are located at about 20 to 25km outside of Ixtepec. Lifestyles can vary drastically between the central, middle-income sections and the four sections where mostly farmers and their families live. The central sections of the city are almost to a 100% connected to electricity, water, and drainage system and feature paved roads, whereas the four agricultural-based sections as well as the 'new' colonies (colonized mostly by people from the Sierra) in some cases only have access to very limited public services. Houses in the central areas are usually made of stone (and sometimes include even two floors), whereas houses owned by farmers are often smaller in size and of simpler construction. According to Reymundo Antonio, director of the planning department, the municipality's drainage system covers about 70% of the houses in Ixtepec. There exists no water or sewage treatment system and community waste is burned at a waste dump in the vicinity of Ixtepec. The river 'Rio de los Perros' which feeds the irrigation system further upstream the city, practically becomes a sewage canal once it passes the city. The river is hence quite polluted, but is still home to various bird and fish species.

According to the mayor of Ixtepec, Felix Serrano, the city has 23 kinder gardens, 19 primary schools, 1 bilingual primary school, 4 secondary schools, 4 high schools, and three universities, which are all for free, but might ask for registration fees. According to 'Nuestro México' (2005) the illiteracy rate of people above 15 years is at 7%, though the mayor of Ixtepec mentioned a rate of illiteracy between 15 to 25%. According to the interviews and focus groups with the purpose of local need assessment, access to education can be a problem for low-income families, which cannot even afford the registration fees for their children. Access to higher education, especially for those who would like to study outside of Ixtepec is also not possible for all families to realize. Quality of education is another issue, since some schools face frequent strikes, cancelling of classes and lack proper educated teachers.

According to Jorge López Cabrera, the director of the health department within the municipal government, Ixtepec has one community hospital equipped with only 30 beds, one urban health centre, one health unit and two clinics for people working for the state or private enterprises which cover additional healthcare costs. Most people, including farmers (theoretically) have access to free basic public healthcare, but which might not cover all necessary treatment costs. For some people it is thus difficult or impossible to acquire the treatment needed, particularly when in need of specialised treatment, which is not offered in Ixtepec. According to the interviews conducted, also quality of healthcare needs to be improved.

Cultural life in Ixtepec is at its high during September (and also partly in May) when the yearly "vegas" take place, week-long festivals rooting back to indigenous traditions mixed with the Spanish influence. Other festivities are related to Christian belief and are celebrated within certain geographic sectors of the city. Ixtepec also has a "cultural house" ('Casa de la Cultura' in Spanish), which belongs to the municipality, and offers free public workshops in painting, dancing, acting,

crafts work, etc. According to Ángel González Vázquez, director of the 'Casa de la Cultura', about 350 people, mostly children, are signed in for these activities. The 'Casa de la Cultura' is the only organisation continuously offering cultural activities in the city. There also exist two public libraries, one organisation where children can read ('Sala de la Lectura'), but no cinema or theatre, of which the nearest ones are found only in the city of Juchitán, about 20km away. Due to a lack of public and private funding the equipment of the 'casa de la cultura' is poor and unsatisfying. In any case, Mr. Vásquez finds it difficult to attract more people to join activities at the 'Casa de la Cultura', since people seem to be uninterested in cultural activities, and it is especially difficult to attract teenagers and students for any kinds of activities. According to him, illiteracy is not the main problem of the people of Ixtepec (although especially people coming to Ixtepec from the Sierra lack essential skills of writing and reading), but the preservation of the local culture. Less and less people know the local language Zapoteco. In personal communication many people said they find the preservation of their culture important, but did not know the language Zapoteco themselves. Zapoteco was seen by many parents as a disadvantage, since their children could be called 'indios' (a swearword for people with indigenous or mestizo background), thus did not speak the indigenous language at home with their children (Call, 2011). Zapoteco is neither taught in schools in Ixtepec, except for one bilingual primary school. Spanish is spoken by almost everyone, although in some of the farmer-based sectors Zapoteco is still spoken frequently or even solely. Though people still wear their traditional, colourful dresses with pride during festivals or other celebrations, the indigenous language and knowledge is increasingly getting lost in Ixtepec. I was told that people still enjoy going to the traditional festivals, but rather enjoy the atmosphere, music, dance, food and alcohol than relating very much to their Zapotecan heritage.

APPENDIX 2.3: NECESSITIES OF THE IXTEPEC COMMUNITY

[based on focus groups (n=291), semi-structured interviews (n=21) and surveys (n=28)]

Employment	Education	Healthcare	Culture	Environment	Support for the Weak and Elderly	Public Services	Participation/Governance
Create Employment	Improve the quality of education	Improve the quality of healthcare	Conserve and promote the local/Zapoteca culture	Protect, conserve and promote the environment of Ixtepec	Provide pension schemes to retired farmers	Improve the access to water, electricity, drainage, and waste treatment	Promote the participation of women in public governance
Promote and create income-generating projects (that take local knowledge into account)	Improve the access to education	Improve the access to healthcare	Improve the quality and quantity of spaces for recreational activities	Improve the treatment of urban residues	Provide support to vulnerable people	Improve the quality of existing infrastructure	Increase the level of transparency and democracy in public policies; reduce corruption
Diversification of the local economy	Enlarge the educational offer	Improve prevention of illnesses (of chronic, physical or mental kind and addictions)	Promote the arts	Improve the level of environmental education			
Create opportunities for capacity-building	Eradicate illiteracy	Increase and promote the knowledge of traditional medicine		Promote and increase the use of renewable energies (e.g. in rural areas)			
Create employment for the youth							
Support the agricultural sector (rural development)							
Make productive, but sustainable use of local resources							

APPENDIX 5.1: ANALYSIS OF THE ORGANISATIONAL DIMENSION OF YANSA'S SOCIAL ENTREPRENEURSHIP APPROACH

Yansa's **purpose** is to create both social and environmental impact: to induce community development and promote a just transition to RE (Yansa, 2012).

The **motive** for setting up a social enterprise is both mission-led, but also driven by market principles and community considerations. The wind farm can be regarded both as a means (for community development and further promotion of the CWF model) and an end (to contribute to the RE transition while not compromising the community's land ownership rights). Further, the motive for setting up the CWFP through a social enterprise model is driven by market principles, e.g. to access funding by banks and investors and to sell the electricity as any other privately-owned wind farm. This makes the intended mission actually achievable and effective. Community considerations, e.g. about community ownership, control and exposed risk, are present in all aspects of the set-up of the SEOs and foundation.

Yansa's **goal** is to create social, environmental and financial value for the communities, the environment and investors respectively. This reflects a SEO's typical strive for a 'double' or 'triple bottom-line' (Emerson, 2003). I will discuss what this could mean for the parties involved in chapter 8.

The **strategy** to achieve Yansa's mission divides into two interconnected approaches, which are typical for a SEO: a programme and financial (or enterprise) strategy. In the Ixtepec case, the *programme strategy* refers to activities with the aim of community development and empowerment, advocating the CWF model as well as realizing more CWFP in other places or countries. Concerning its role as advocate, Yansa is, for example, advocating for legislative and institutional changes, e.g. with the Mexican government to include social standards and impact assessments during public calls for tender for energy projects, but also advocating the community wind farm model in conferences, lectures and other spaces to reach a broader audience and raise awareness on related issues. Through this approach public attention and support could increase, and the currently non-supportive legal environment change in favour of community wind farms, or community RE projects in general.

The *enterprise strategy* is mainly concerned with how to provide the financial resources needed to realize the program activities as outlined above. This involves the search for below-market-rate debts with banks and social investors to cover the large investment costs required for the wind farm, as described in section 2.3.2. In the initial phases of the project this involves also the search for more traditional non-profit funding sources, e.g. grants, to cover the work with the community and operating costs before the wind farm is constructed and generates revenues. Once the wind farm is running, the surplus generated by the Yansa Ixtepec CIC will be split in half and forwarded to the Yansa Group and the community trust, as described in section 2.3.2. Other activities that can be considered part of the enterprise strategy are the managerial and technical activities provided by the Yansa CIC to develop the financial, legal and technical model in order to realize the project. It also involves finding access to networks and establishing partnerships, e.g. with the wind farm developer that will provide the turbines.

Program and financial strategies are not pursued through the same activity or **organisational structure**: the wind farm will be constructed and managed by the Yansa Ixtepec CIC, whereas the community development is pursued by the Yansa foundation and later on through the commission trust.

The **legal status** of the social enterprises was chosen to be a 'Community Interest Company', which allows Yansa to seek private capital while the use of assets and surpluses is restricted to social and community purposes only.