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WOMEN, COCOA AND CONSERVATION IN THE ECUADORIAN AMAZON

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To my mother, to my father.

Abstract

The Waorani, one of the seven 'nationalities' that inhabit Ecuador's Amazon rainforest, live in one of the most highly contested areas of the country. They inhabit an ethnic reserve which is partially surrounded by the famous Yasuní National Park, one of the global bio-diversity hotspots which also happens to be situated above some of the most conspicuous crude oil reserves, the country's main export. For centuries they have inhabited their ancestral lands but the increased presence of 'alien' actors, such as petrol companies, has changed the dynamics of their territory by establishing infrastructure and by kick-starting a drive to modernisation which has had dramatic effects for indigenous populations, such as pollution, deforestation and uncontrolled wildlife extraction. In this environment the Waorani, lead by their own women's association (AMWAE - *Asociación de Mujeres Waorani de la Amazonia Ecuatoriana*) and aided by the support of international NGO TRAFFIC, are pursuing the objective of finding new, economically viable and sustainable means of income. Chocolate production was identified as the preferred option and hence *theobroma cacao*, a native species, was planted in previously deforested plots, thus reclaiming marginal areas and linking them to the communities. The objective was to be able to process the raw cocoa beans, a cash-crop, into an own brand of chocolate by integrating into an existing value chain. Difficulties abound however as the Waorani only recently began converting from hunting to agriculture.

In this qualitative student's research the deeper meaning of cocoa will be explored from the perspective of AMWAE, using ethnographic enquiry and interpretative phenomenological analysis. For this purpose five main thematic domains have been identified and each is assessed individually. The results reveal that even though the intervention is in a relatively advanced stage, in which plantations are gradually reaching productivity, much progress must still be made in order to deem it successful.

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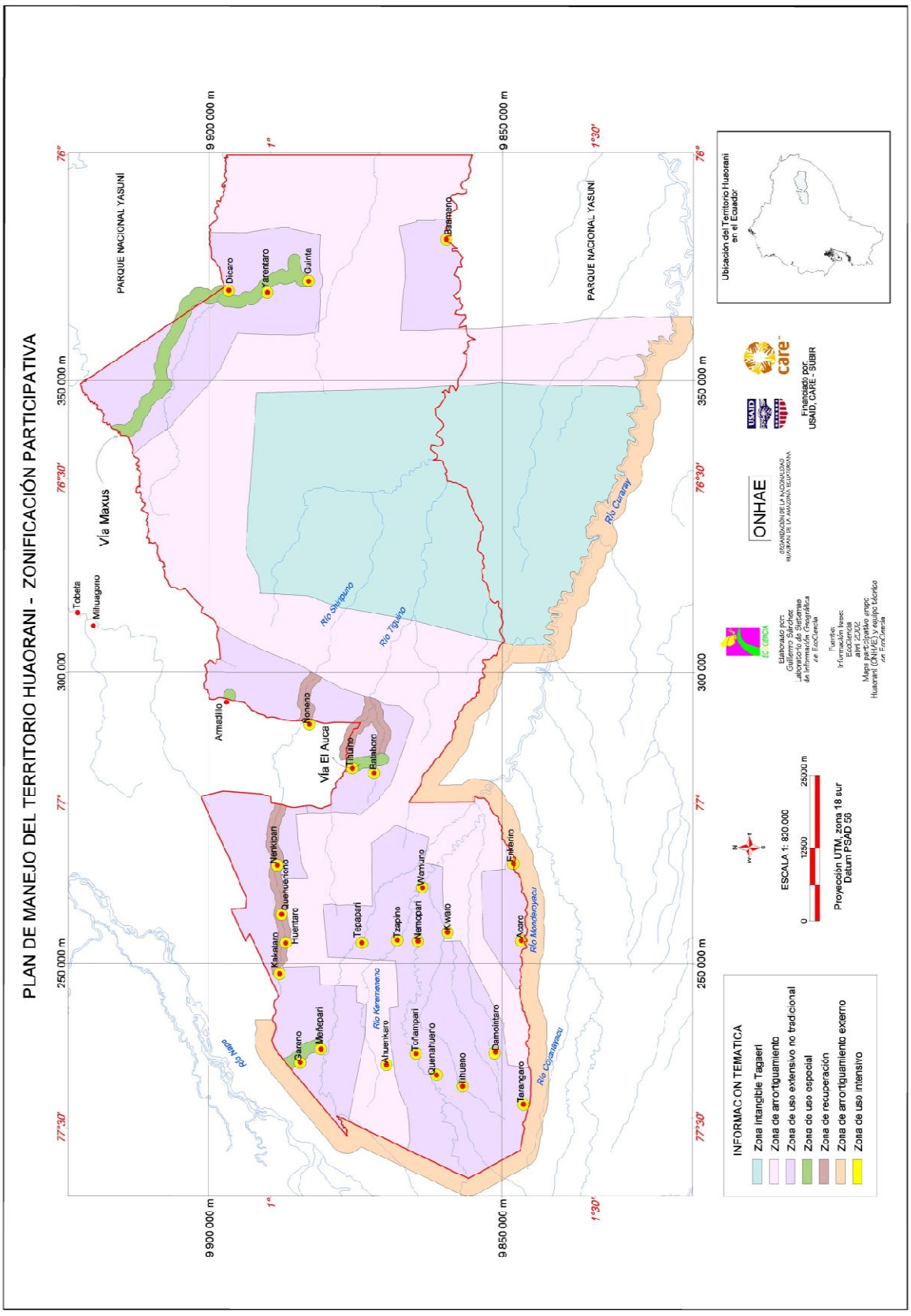
List of Abbreviations

AMWAE	*Asociación de Mujeres Waorani de la Amazonia Ecuatoriana*
	Waorani Women's Association of the Ecuadorian Amazon
FAO	Food and Agriculture Organisation
ICCO	International Cocoa Organisation
IPA	Interpretative Phenomenological Analysis
NAWE	*Nacionalidad Waorani del Ecuador*
	Waorani Nationality of Ecuador
NGO	Non-governmental Organisation
YBR	Yasuni Biosphere Reserve
YNP	Yasuni National Park

FIGURE 1.: Map of Waorani Territory. Source: ONHAE, USAid (2002)



Chapter One: Introduction

1.1 Background

The history of the Republic of Ecuador is closely linked to *theobroma cacao.* So much in fact that in his historical paper Henderson (1997) is able to disclose the history of the whole country, from its politics and its global positioning in the world just by looking at the economic relevance of cocoa. His efforts end with the decline of the relevance of the cocoa industry for the Ecuadorian economy in 1925 and so it fell upon other authors to continue with the history of cocoa until the present (Ton *et al.*, 2008). Today Ecuador is the second largest producer of cocoa in Latina America (FAO, 2003) and has been further stabilising this position by successfully switching to cocoa varieties that are resistant to diseases, which had affected cocoa production areas in the past (FAO, 2003). This does not imply however that the importance of this cash crop has been restored to its former glory, as Africa has become the world's greatest exporter in the world, with its global production estimated at 68% in 2010 (FAO, 2003). Today Ecuador's main export is crude oil and "between 50-60% of export earnings are derived from the oil sector" (Beittel, 2013) which, in the case being analysed in this thesis, can be very directly linked to cocoa itself - as will be discussed later.

Cocoa has become a popular crop used in development programmes in the tropics because it only grows in the so called 'cocoa-belt' - ten degrees north and ten degrees south of the Equator respectively (Pohlan *et al.*, 2010). While some claim that "world chocolate demand is expected to more than double by 2050 (Bisseleua *et al.*, 2009) the International Cocoa Organisation (ICCO) and its Economic Committee predicted "a second consecutive year of supply shortfall for 2013/2014" to lead to higher cocoa prices (ICCO, 2014) – two positive indicators for the future of the sector. This is relevant because the focus of this thesis will concern a cocoa intervention which is being carried out in the east most part of Ecuador's Oriente region. "The Oriente is a term used to refer to the Eastern (Amazonian) provinces of Ecuador" (Swing *et al*., 2012) which comprises "the eastern slopes of the Ecuadorian Andes and the lowland areas of rainforest in the Amazon basin" (Encyclopaedia Britannica, 2015). More specifically at the borders of, and in, the country's largest national park, the Yasuní National Park (YNP).

Located in the eastern part of the Republic of Ecuador, the YNP has been first declared as such in 1979 (Finer *et al.*, 2009a) by the Ecuadorian government. Since "it is one of the most bio-diverse places on Earth, and the core of a unique area where the continent's plant, amphibian, bird, and mammal species richness overlap" (Bass *et al.*, 2009, in Finer *et al.*, 2009a) UNESCO has recognised the site: Yasuní National Park as a Man and the Biosphere Reserve, thus highlighting the need and value for its conservation and protection. This area, that could be described as 'remote' in geographical terms, is home to the Waorani, who are an indigenous population that only 'recently' – in 1958 as estimated by Yost (1991, in Holt, 2005) - made peaceful contact with the outside world. A fraction of the "fewer than 3000 individuals" (Swing, *et al.*, 2012) are also the direct recipients of the aforementioned intervention. "The entire Yasuní Biosphere Reserve (henceforth YBR) is ancestral Waorani territory, which extends from the Napo River on the north and west, down to the Curaray River in the south and eastward into Peru. This vast territory, which stretches over 20 000 km², underlies the current limits of Yasuní National Park and the Waorani Ethnic Reserve." (Finer *et al.*, 2009a). The latter has been established in 1992 which had the purpose of entitling land directly to the Waorani.

There is sufficient literature available to gain an insight in the history and ethnography of the Waorani. It is rather recent, however, as "information on [Waorani] history and distribution prior to the twentieth century is scarce and speculative" (Rival, 2002, in Finer *et al.*, 2009a). Most authors agree that the Waorani were traditionally a "highly mobile and semi-nomadic population" (most recent: Beckerman *et al.*, 2009), there are conflicts however on their mode of subsistence. Early authors have described them as hunter-gatherers (Rival 2002, in Finer et al., 2009a) while authors like Beckerman *et al.* (2009) suggest a more complex reality and define them as "interfluvial lowland tropical rainforest horticulturalist/foragers". In any case the Waorani were benefitting from the isolation and the natural abundance the jungle provided: "With their raided metal tools, blowguns, spears, digging sticks, chambira nets and bags, the Huaorani obtained their sustenance from the forest and rivers. Living in autonomous *nanicaboiri* (long houses comprising close kin) they hunted game, fished, gathered forest products, and cultivated sweet manioc, plantain and other crops. Indeed, with their low densities, limited technology, and subsistence orientation, the Huaorani would appear to have been practicing sustainable resource use." (Lu, 2010).

1.2 Research Focus

The focus of this research is to gain an insight in the state of a cocoa intervention that has been initiated in 2010. The overall scale of the intervention would have been fascinating to study but would also have required means that were beyond the possibilities of this researcher. What could be uncovered and studied in mere six weeks is a much more modest dimension, fruit of more than one reformulation of the general research question. The collected data would not support claims made on the intervention as a whole and so the central domain of the intervention, cocoa, will be assessed, neither globally, nor locally for the Waorani, but just from the point of view of the *Asociación de Mujeres Waorani de la Amazonia Ecuatoriana* (the Waorani Women Association of the Ecuadorian Amazon, henceforth referred to as AMWAE) and the women that compose it. External actors that appear in the following chapters, should be considered an extension of AMWAE. Detailed information about this will be given in chapter three on methodology.

AMWAE's is a small scale intervention that is occurring in 5 out of 32 Waorani communities, most of which are situated in the northern border of the Waorani Ethnic Reserve and of the YNP. Since these communities are rather remote they are difficult to reach and while much literature can be found concerning the Waorani, almost none of it directly addresses their involvement in agriculture as a mode of subsistence. The topic of hunting has been extensively covered because of its environmental impact on an area with invaluable biodiversity - but alternatives to it are rarely identified in the same papers, nor the consequences that these may have for the Waorani people. For this reason conducting an enquiry into one alternative mode of subsistence should be relevant although it should be explained what is meant here by 'alternative': The Waorani, before engaging in wildlife extraction for trade, relied on it for subsistence, i.e. consumption as food. Cocoa, being a cash crop, cannot be regarded as an equivalent source of nutritional intakes. It may be an alternative in terms of activity or occupation, as well as source of income. With little to no information available before the field research, the latter had to take place to understand the present situation in Waorani communities as well as the state of advancement of the intervention. By observing its implementation the aim was to uncover its rationale and design. Having completed the two previous steps a thematic content analysis was conducted

which unveiled a set of domains relevant to the central concept of cocoa. It thus became necessary to select and explore which of these domains were the most relevant. The domains selected now had to be analysed individually to uncover their deeper meaning in relation to cocoa from the point of view of AMWAE. Completing all the previous steps, it will be argued, should have enabled this author to respond to his overall research aim, namely understanding the deeper meaning of cocoa from the perspective of AMWAE.

1.3 Overall Research Aim and Individual Research Objectives

The aim of this research, as has been previously stated, is to understand the deeper meaning of cocoa from the point of view of AMWAE. To achieve this goal the overall aim has been broken down in four individual research objectives which will be listed first and then described in detail.

I. Investigate the state of the cocoa intervention.
II. Determine how the cocoa intervention functions in practice.
III. Identify the most relevant domains that can be attributed to cocoa.
IV. Explore the deeper meaning of the single domains from the point of view of AMWAE.

I. There was a lack of information regarding the current state of the intervention. A generic description of this project and its objectives were made available but neither figures nor other details were presented. Inquiries made via electronic correspondence or via telephone or Skype did not improve the amount of information significantly. Eventually it became clear that only physically going to the field would uncover the stage of the implementation of the project.
II. While the goals of the project were stated, no information was provided explaining the single steps in the process. Being composed by a complex chain of tasks and operations, it became necessary to identify the different steps performed, how they were carried out in practice and by whom.
III. After having completed the previous two tasks a bigger picture of the cocoa intervention had taken form. In order to gain a holistic understanding of the

concept, the domain of cocoa had to be broken down in sub-domains - which would then be analysed individually.

IV. The deeper meaning of the aforementioned domains would then lead to understand the deeper meaning of cocoa for AMWAE, i.e. what it, and the whole intervention means to the NGO and its women.

1.4 Value of this research

This qualitative research will be exploring a knowledge gap. This researcher recognises that it will be a small contribution to the academic world but would like to point out that this was dictated by sound academic practice. Other students may benefit from the experiences of this author and may thus try to improve themselves by avoiding the same mistakes, or at least become aware of some of the difficulties before going to the field themselves - such as dealing with severe constraints.

Chapter Two: Literature Review and Research Context

2.1 Introduction

This chapter has the twofold purpose of presenting and reviewing relevant literature, as well as setting the context for the research. This choice has been dictated by the fact that while much literature on the topic exists, none of it specifically fits the case study that will be studied throughout this thesis. Four main themes could be identified throughout the literature, all of which provided relevant information. Since none of them would, nor could – given the different domains, provide exhaustive information, a selection of elements from the four will be critically assessed with the aim to guide the reader in his understanding of the case.

In some cases the literature will fit the research objectives of this thesis and provide material for the discussion while in some other cases the literature will provide additional information that, while not figuring directly in the analysis, still provides necessary background or context information.

2.2 The Waorani

This indigenous population has been the subject of many different studies. A full rendition of this literature could compile a thesis in itself and would not be pertinent here. A selection of details however will help put them in perspective for the analysis to come in later chapters. From this researcher's understanding two authors in particular feature most prominently in Waorani literature: Dr. James Yost and Dr. Laura Rival. Their papers and publications are quoted by almost every author who has conducted research in Waorani territory, which may be regarded as a tribute to their exceptional work. This researcher resents not having been able to obtain their original publications (Yost's in particular is very difficult to find) but could only quote their work through the mean of other authors.

"The human population around and inside the YNP is estimated at 45 000 people with c. 2000 people living inside the protected area, and is mainly composed of Waorani and Kichwa people, living in small communities along the northern and western boundaries of the park" (Suárez *et al.*, 2009).

The Waorani are sometimes referred to in literature as Huaorani and speak a language, *Wao Terero,* which is unrelated to any other. Throughout this thesis the term 'Waorani' shall be preferred to 'Huaorani' since the first representative organisation created to represent their people in 1990, known as ONHAE (Organisation of the Nationality Huaorani of the Ecuadorian Amazon) (Ziegler-Otero, 2004, in Finer *et al.*, 2009a), was later renamed NAWE (Nationality Waorani of Ecuador) in 2007. Similarly, when the Waorani women formed their own association in 2005 they named it AMWAE (Association of Waorani Women of the Ecuadorian Amazon), which reflects the preference for the word 'Waorani' over 'Huaorani'. It should be noted however that both are used interchangeably throughout the literature and may thus be considered synonyms.

Many other words exist that are subject to the same alternate spelling. In an effort to be coherent the letter 'w' shall be preferred by this author to its equivalent phonetic spelling: 'hu'. Therefore the community of *Tiwino* shall not be spelt *Tihuino*, although it may appear as such when cited in the literature or on maps, for example.

Since "information on [Waorani] history and distribution prior to the twentieth century is scarce and speculative" (Rival, 2002, in Finer *et al.*, 2009a) their history and ethnography may be regarded as rather recent. There is abundant literature concerning this indigenous population; however some conflict exists regarding their preferred mode of subsistence. Early authors described them as hunter-gatherers (Rival 2002, in Finer *et al.*, 2009a) while others, most notably Beckerman *et al.* (2009) prefer a more elaborate definition: "interfluvial lowland tropical rainforest horticulturalist/foragers". Nevertheless, almost all authors agree that the Waorani were traditionally a "highly mobile and semi-nomadic population" (*Ibid.*).

One recurrent trait that appears in literature is that the Waorani and their relatives (the Tagaeri and the Taromeane, two indigenous groups still living in voluntary isolation) have a distinct bellicose past and can be described as "zealous warriors (labelled as such on their participation in raids at an elevated rate)" (Beckerman *et al.*, 2009). They are known to be more "warlike" than other belligerent tribes on the continent, mainly because the "warfare death rates" are not limited to males but widely spread to women and children. As a result the first encounters with them are marked in chronology as "first peaceful contact" (*Ibid.*). "Neighbouring groups were afraid to settle" in the region and outsiders "occasionally traversing or hunting" in that area, missionaries or oil company workers alike, even more so, and "for good reason" (*Ibid.*). "When Waorani found invaders, they speared them".

Interestingly "their reputation for ferocity was earned by violence against each other as well as outsiders" (*Ibid.*). What is astonishing is that the killings, often of an intertribal nature, i.e. between different families in different settlements, and driven by motives of revenge, were so frequent and widespread that they were causing a significant decline in Waorani demographics: "the Waorani were well along in the process of killing themselves off at the time of peaceful contact" (*Ibid.*). "The failure to grow as a population" may be attributed to "Waorani willingness to kill women and girls" (*Ibid.*).

Another article however underlines a different, seemingly conflicting trait: "the general absence of spousal abuse and gender hierarchy and the flexibility and informality of most gendered roles have contributed to descriptions of the Waorani as a highly egalitarian society" (Rival, 2002, in High, 2010).

In this regard it is noteworthy that Waorani women may have strongly and repeatedly influenced the course of history of their people. Presently the majority of Waorani are relatively peaceful and the last official killing of two old Waorani in March 2013 "is currently under investigation by Ecuadorian Authorities to confirm responsibility of Tagaeri Taromeane groups" (Plaza, 2013, in Pappalardo *et al.*, 2013). According to literature this is mainly due to American evangelical missionary activity in the YBR, which had begun in the late 1950s: the missionaries were able to establish new settlements, namely a "small 'protectorate' in the westernmost part of Waorani lands" (Cabodevilla, 1999. In Finer *et al.*, 2009a), thanks to one or more Waorani women who had escaped their villages. The role of the missionaries in the relocation of several Waorani settlements seems to be subject to controversy as the abandoned areas were shortly after opened for oil exploration.

2.3 The Territory

As the last subchapter already implied, contact with the Waorani was rarely accidental. Intuitively one would believe that scarceness of resources could lead to competition, eventually leading to conflict that could escalate to intertribal violence. This, however, was never the case for the Waorani. Indeed, quite the contrary is true. The richness of wildlife, timber and other natural resources constantly led outsiders to trespass in their territories. The most 'recent' driver is crude oil: "The YBR sits atop large reserves of crude oil (Finer *et al.*,

2008, in Finer *et al.*, 2009a), Ecuador's chief export. In fact, Ecuador's second largest untapped oil fields, located in a part of the park called Ishpingo – Tambococha - Tiputini but more commonly referred to as 'ITT', lie beneath Yasuní National Park" (Aguirre, 2007, in Finer *et al.*, 2009a). As if that was not enough "the reserve contains an abundance of valuable tree species, drawing illegal loggers deep into its core" (Ibid.).

The article by Finer *et al.* (2009a) offers the most comprehensive "chronology of key events in the Yasuní region" of which only the key 'oil extraction' events will be reported here. Royal Dutch Shell petrol company began oil explorations in the Waorani territory in the 1940s but the killings of several oil workers by the Waorani eventually lead to an end of operations. The following years can be defined as the 'missionary years'; oil exploration resumed in the 1970s. In the early 80s the first road, the Via Auca, was completed by Texaco, giving life to the first oil production sites in ancestral Waorani territory. Shortly after the Ecuadorian government leased out oil blocks which covered the northern part of the YNP. After Petroecuador took over Texaco oil operations in 1992, Maxus Energy Corporation began construction of a new road which was eventually completed in 1995: the Via Maxus lies east of the Via Auca and reaches over "140 km into YNP and [the] Waorani Ethnic reserve". The increased presence of oil company workers inevitably lead to violent confrontations and killings.

The article by Pappalardo *et al.* (2013) gives the most comprehensive 'geospatial' description of the YBR and highlights the difficulties in mapping and defining the perimeters of such a large area. Whereas the main aim of the study is directed at using geo-mapping technology to obtain more precise measurements, claims are made that the definition of territories should go beyond the mere calculation of limiting coordinates and also take into consideration social boundaries.

The set up of 'ethnic reserves' and of 'intangible zones' has neither prevented the Waorani, nor their relatives in voluntary isolation, from making repeated contact with outsiders. The consequences and the effects of this are object of studies by many authors of several disciplines. Facilitated access has changed the territory and brought about new problems and dynamics for the Waorani, who have become increasingly involved with new actors in the area. On one hand the roads have opened up opportunities for illegal loggers, thus increasing the rate of deforestation. On the other, the infrastructure has increased the rate and trade of wildlife hunting. The latter is best assessed by the paper of Suárez (et al., 2009) in which "the

emergence of a wild meat market in the Kichwa community of Pompeya, some 5km outside the boundary of the YNP" is described. While indigenous populations are allowed by law to engage in subsistence hunting the amount of traded meat at the market suggests that much of it is harvested illegally. "Although trade of wildlife products is illegal in Ecuador, the transactions at the Pompeya occur openly as there is no enforcement of existing laws. Although local authorities and park rangers know about the market, they lack the resources and political will to stop the illegal trade of wildlife in Pompeya, primarily to avoid conflicts with the local indigenous population" (Suárez *et al.*, 2009). The very last sentence of the previous quote is full of implications as it states that indigenous populations, thus including the Waorani, have increased their hunting activity beyond the mere scope of subsistence. Furthermore the Waorani are identified as mainly mammal species hunters (97% of meat sold), unlike hunters from other ethnic groups, such as the Kichwa "for which fish and mammal [species] are equally important" (Suárez *et al.*, 2009). It should be noted that the market of Pompeya is situated "right in front of the Maxus road" (*Ibid.*) and that, since the completion of the road, three Waorani communities settled along it: Guiyero (32km from the market), Timpoca (54km) and Dicaro (94km) (*Ibid.*). Approximately "35% of the total animal biomass sold at Pompeya came from these three Waorani communities" (*Ibid.*) at the time the study was conducted.

The wild meat trade is a source of profit for Waorani hunters who reportedly use the profits to purchase other goods, such as petrol and medicine. The increased harvesting however has lead to the decline of protected wildlife populations: While the article by Suárez *et al.* (2009) admits to its weakness of not being able to provide a proper sustainability estimation of hunting practices it affirms that there have been "significant decreases in the population of some of the most hunted species" (Franzen, 2006, in Suárez *et al*, 2009) in the area of the Maxus road. Last but not least it should be noted that roads have not only facilitated access to remote areas of the Yasuní: "transportation through the road is fully subsidised by oil companies" (Suárez *et al.*, 2009).

2.4 The Cocoa

This subchapter will look into cocoa production techniques and aspects of its potential market value. "*Theobroma cacao L.* is a small but economically important tree. It is an evergreen, 4–

8 m tall, of the Sterculiaceae family, native to the tropical region of the Americas" (Rusconi and Conti, 2010). Although stating that "world chocolate demand is expected to more than double by 2050" the paper by Bisseleua *et al*. (2009) also recognises that "agricultural production, including the production of cocoa, can strongly influence biodiversity and ecosystem processes, often changing community composition, plant biomass, vegetation structure, and nutrient cycling because of the interactions between biological, social, and economic factors" (Greenberg *et al.*, 2000, in Bisseleua *et al.*, 2009). Albeit being focused on a different region, the semi-deciduous rainforests of southern Cameroon, the paper makes important contributions to the possible effects of an increase in global demand of cocoa. The underlying assumption here is that cocoa, a cash crop that has been subject to strong price fluctuations in the past (Ndoye and Kaimowitz, 2000, in Bisseleua *et al.*, 2009), may generate negative effects when farmers respond to crises by increasing their activity in the production of food crops to compensate for the lost income (Sunderlin *et al.*, 2000, in Bisseleua *et al.*, 2009), thus causing "a significant increase in forest clearing, which has had profound negative, environmental, economic, and political consequences" (Bisseleua *et al.*, 2009). The former statement depends of course on the scale of the agricultural operation. In this regard the combined literature recognises four distinct cultivation systems (Bisseleua *et al.*, 2009; Jacobi *et al.* 2014):

- **Mono:** Full-sun monoculture
- **AFS:** Simple Agroforestry Systems
- **SAFS:** Successional Agroforestry Systems
- **TCG:** Traditional Cocoa forest Gardens

There is no need for a detailed analysis of the different systems in this instance but a few necessary remarks should suffice to explain why the distinction is relevant. The systems are different in that they offer differing combinations of "productivity", i.e. yield or output maximisation, and "sustainability", i.e. biodiversity and ecosystem conservation. This equation is composed, for example, by 'shade tree management' practices, as the cocoa tree naturally grows below a canopy.

The explanation in the paper for the Ecological Society of America formulated by Waldron (*et al.* 2015) is perhaps the most comprehensive: "Yield improvement depends strongly on

agro-ecological management of the farm, including exploiting free ecosystem services. One of the most important agro-ecological determinants of yield is the management of the partial forest canopy or "shade trees" (Ruf and Schroth, 2004, in Waldron *et al.*, 2015). Shade trees provide various ecological services to the farmer but also have negative effects on yield (Beer *et al.*, 1998, Somarriba, 2004, both in Waldron *et al.*, 2015). The principal negative effect is a reduction in the solar radiation falling on the crop (Wood and Lass, 2001, in Waldron *et al.*, 2015), whereas positive services include enhanced soil nutrient stocks and flows, provision of habitat for pollinators and natural pest-control agents, and mitigation of harmful weather extremes (Beer *et al.*, 1998, in Waldron *et al.*, 2015)." In short: "The biodiversity optimum for shade is a high density of trees, whereas the yield optimum appears to be a very low density of trees." On a positive note, however, the aforementioned paper by Jacobi *et al.* (2014), underlines how in their study "cocoa pod husks from harvested cocoa beans were the only fertiliser used (applied in all cocoa systems). Thus, all of the cocoa cultivation systems in the study area could be considered low or even zero-external-input systems." This is positive for environmental reason as well as economic ones as of all the "seven million hectares of the tropics [that] are under cocoa, with 80% of all production coming from small farmers living below the poverty line" make cocoa "the principal nonsubsistence crop grown by small smallholders in the developing world" (Schroth and Harvey, 2007, Franzen and Borgerhoff Mulder, 2007, FAO, 2011, all in Waldron *et al.*, 2015). Cocoa however, is a cash crop and, as such, must be processed to gain on its added value. The price at farm gate level rarely matches the final price of the processed product but growers often lack the means to include more steps in the value chain, to increase their revenues. Indeed the core of the matter is related to the scale of the operation in question as "lead firms govern increasingly integrated value chains" and, in particular, "the chocolate value chain has undergone significant consolidation over the past two decades with a small number of processors and chocolate companies established as lead firms." (Barrientos, 2014). The same article by Barrientos (2014) includes a "simplified cocoa-chocolate value chain" and a list of the operations that occur on farm-level during the cocoa production. In conclusion it should be noted that all the collected information is not specific to the area nor case in question: It should be regarded as a baseline.

The history of the Republic of Ecuador is deeply intertwined with the production of cocoa. "Like other Latin American countries, Ecuador's integration into the expanding world economy during the nineteenth century was characterised by a high level of dependence on a

single primary product" and "by the turn of the century, Ecuador was the world's leading cocoa producer and accounted for between a fifth and a quarter of world production" (Henderson, 1997). A deeper look into the history of cocoa reveals many aspects of the dynamics that drive both the economy and the policies of Ecuadorian governments, even though its importance has been fluctuating, much like its price, over the years. The best rendition of both past and recent events is provided by an outstanding 'Strategy and Policy paper' published by Wageningen University and Research Centre (Ton *et al.*, 2008), which conveniently identifies three main periods. A choice of key events will be selected here:

In the first period, 1900-1925, when production was at its peak, "high cocoa prices, coupled with abundant supplies of cheap labour and an infrastructure of rivers that connected the production areas with global export markets, gave rise to a booming business" (Ton *et al.*, 2008). Unsurprisingly the operations were in the hand of an "oligarchy, made of large producers, exporters, importers and bankers, developed in the coastal area of Guayaquil", (Ibid.) to such a degree that Henderson (1997) refers to it as "the hegemony of the coast". While "cocoa exports provided the main source of currency for imports and fiscal income for the state, little of this hard currency was spent on productive infrastructure or invested in domestic manufacturing" (Ton *et al.*, 2008); the revenues were never distributed but contributed only to the creation of a "class of very rich families, many of them living abroad" (Ibid.), who, in unison with the government, gave life to the BCA (Banco Comercial y Agricola), a private agricultural bank which "controlled virtually all aspects related with cocoa exports" (*Ibid.*).

The second period, 1925-1998, sees a decline in relevance of cocoa as new products, such as bananas or coffee were added to the list of exports. In this regard it should be noted that the economy of the country is subject to strong regional differences: "Both the coastal and sierra economies are based on agriculture, though their products are totally different, while the sparsely populated eastern rain forest contains almost all the oil" (Thoumi, 1990). As a consequence "it reaffirmed the dependency of the state (in the capital Quito) of the second main city Guayaquil", thus inducing "CEPAL (UN Economic Commission for Latin America and the Caribbean) to call the development of Ecuador 'bi-centralista', with two centres" (Ton *et al.*, 2008). Overall, this may be defined as the period of the oil-boom (ca. 1970s) which, on one hand, caused a "boost to public sector revenues" (*Ibid.*), thus "enabling the state to embark upon an ambitious programme of industrial development, infrastructure and

social investment" (*Ibid.*), while, on the other "created the conditions for structural deficits in public finance" (*Ibid.*). Interestingly "revenues from petrol exploitation made Ecuador a preferred client of international lenders. At the turn of the century this had resulted in one of the most indebted countries in Latin America (*Ibid.*)".

The third period, 1998-2007, saw the collapse of the "cocoa economy" due to "major political and economic turbulence" (*Ibid.*). "The situation of hyperinflation resulted in a sequence of popular uprising that culminated in January 2000 [when] the US dollar became the official national currency" (*Ibid.*). As a consequence this decreased the number of macro economical interventions, namely devaluation, thus forcing "companies to be more efficient in order to compete in the international market" (*Ibid.*).

This brief historical excursus in the economic history of the country, shows varying degrees of relevance of the cocoa industry. In the three periods, government policies were tailored to suit different beneficiaries. Nowadays, the focus is on competitiveness: "The state plays a pivotal role in generating the national organisations and consultative councils through which this corporate governance is effectively institutionalised. The government plays an active role in fostering chain coordination between all involved chain actors" (Ton *et al.*, 2008). This has become a priority since "productivity in Ecuadorian trees is relatively low" (Ton *et al.*, 2008), and therefore a new variety of cocoa was introduced: CCN51. This "relatively new, high yielding variety is mostly produced on large plantations" and is therefore widely preferred by the "local processing and chocolate manufacturing industry" (*Ibid.*). The national cocoa variety, called 'arriba' or 'fino de aroma', on the other hand is preferred by cocoa exporters who favour it because of its quality premiums (*Ibid.*). The objective has thus become to preserve a sector "that depends to a significant degree on its quality of produce" as well as "creating an enabling environment for the marketing of the Ecuador specialty cocoa" (*Ibid.*). As of present, this is the task of a specifically designed government organisation the 'Consejo Consultivo de la Cadena Agroindustrial Cacao y Elaborados', which was successful, in 2005, in ensuring that the two varieties of cocoa are marketed separately.

2.5 Indigenous Communities Rights

Ecuador's population is very diverse and highly fragmented, "minority groups include 14 distinct indigenous peoples" who "according to the 2010 census represent seven per cent of the population, an increase of 22.6 per cent from the estimated indigenous population in 2001" (2010 Census. In Minority Rights, 2014). Since for the better part of the past century, the east most region, called Oriente, was neglected, a majority of indigenous populations were able to remain relatively isolated. Following the years of the oil boom, however, the perception changed and the Amazon became a "frontier to be conquered, a source of wealth for the State, and an escape valve for land distribution pressures in the highland and coastal regions" (Kimerling, 2006). The government's policies changed accordingly and suddenly "national integration meant incorporating the Amazon region into the national economy and assimilating its native inhabitants into the dominant national culture" (*Ibid.*). "Not surprisingly most indigenous peoples did not want to be 'civilised' by outsiders. To them, 'civilisation' and assimilation meant rejecting their beliefs and way of life, lowering their standard of living, and entering the lowest social and economic levels of Ecuadorian society. It meant new diseases that shamans could not cure, the erosion of food security and self-reliance in meeting basic needs, and a loss of sovereignty and deepening spiral of dependency on outsiders and the cash economy. The loss of ancestral lands threatened their very survival." (Kimerling, 2006). In Kimerling's exceptional rendition of events regarding the 'civilising' process, the degree of consciousness of the indigenous populations, their understanding of how 'modernity' would impact, affect and indeed forever change, their lives, seems exaggerated at first glance. It should be noted however that Ecuador's formal recognition of indigenous land rights beginning in 1990, was also spurred by the indigenous peoples themselves, who responded to "national policies promoting assimilation and 'development' by organising themselves and joining together at times, to find new ways to confront common threats" (*Ibid.*). CONAIE, the Confederation of the Indigenous Nations of Ecuador, founded in 1986, "became a key player in Ecuadorian politics", "instrumental in organising pan-indigenous uprising" (Minority Rights, 2014). "In 1998 Ecuador formally recognised the multi-cultural nature of Ecuadorian society and some collective rights of indigenous peoples with the ratification of ILO Convention 169, The International Labour Organisation Convention Concerning Indigenous and Tribal Peoples in Independent Countries" (Kimerling, 2006). Although these recognitions were considered major victories for native peoples, "oil development and internal colonisation had displaced" many

(Kimerling, 2006). Interestingly, entitlements of land were not uniform: while some groups were able to receive full legal title, others, living in national parks, like the Waorani in the YNP, received no "title to those lands, although Ecuador's forestry law recognises their right to use the lands for subsistence activities" (*Ibid.*). In conclusion it should be mentioned that all the efforts of the "by indigenous populations for formal recognition of the rights of indigenous peoples" (*Ibid.*), "the results of years of struggle" (*Ibid.*), were not sufficient to ensure control of subterranean resources: "The State continues to claim [...] ownership of oil and other subsurface materials in titled lands, and legal titles typically provide that indigenous peoples may not 'impede' or 'obstruct' oil development or mining operations in their lands" (*Ibid.*).

Chapter Three: Methodology

3.1 Introduction

Before going to the field, little information was made available regarding the details and the state of advancement of the cocoa intervention. This lack of information influenced research and a preliminary study of the case was conducted via an exploratory literature review. As a result a set of previously formed assumptions were formulated. While they proved helpful in that they gave this researcher a theoretical framework to work with, most of them had to be discarded and reformulated. This chapter will begin by introducing the data that has been collected and the limitations that it has been subject to. Subsequently the research strategy will be outlined followed by the framework of data analysis. In the conclusion some of the problems and limitations will be discussed, although these may sometimes be already mentioned in previous paragraphs if necessary - for the sake of immediate clarity.

3.2 Background Information and Data Collection

3.2.1 Foreword

This research has come into existence because of the initiative of an international NGO, named TRAFFIC, that issued a call for applications during Winter of 2014. The offer stated generic information on the topic and introduced AMWAE as a partner in projects involving Waorani people in their communities (cocoa being only one of them). The application was open to an internship position and a master thesis respectively. For the latter this student was selected but for unknown reasons communication proved difficult and eventually TRAFFIC disengaged from this collaboration entirely. By that time contact to AMWAE had been established and the decision to proceed with this research was made. The author has never been contacted by TRAFFIC since.

3.2.2 Data

The data for this thesis has been collected during a period of six weeks, between the 18th of March and the 28th of April 2015. During this time this student travelled to Puyo, the capital city of the province of Pastaza in Ecuador. A volunteer in AMWAE's eyes, no real task nor specific job was officially assigned. From the beginning the purpose and the nature of the collaboration were unclear and days were required before communication improved. At first,

official colloquium with the technical supervisor of the intervention, a Waorani woman who was former president of the NGO and who collected the UNDP's 2014 Equator Prize on its behalf, helped define what the NGO expected from this cooperation: help and support while carrying out research in the communities, particularly regarding the earlier stages of the intervention. A detailed agreement on how this should be achieved was never discussed although involvement in most activities in the office and in the communities was allowed. As a result multiple entries to the communities took place. These were always in AMWAE's first and foremost interest: to carry out planned activities that contributed to AMWAE's goal to support women in Waorani communities. Not all entries were related to the cocoa intervention and, given the costs of reaching these remote areas for reasons that will be explained in a later chapter, the minimum amount of time was spent in each community. This would form just the first of a series of constraints that will now be listed:

1) This researcher does not have a degree of fluency in the Spanish language. An intermediate scholar of the language at best, much communication relied on the Spanish language's similarity to one of the student's mother tongues: Italian. It was not the first time that this was attempted by this student but South American Spanish differs from the traditional *Castellano* Spanish spoken nationally in the country of Spain, albeit minimally.
2) The Waorani's native language, *Wao Terero* (sometimes also referred to as *Wao Tededo* or *Wao Tiriri*), is a language unrelated to any other. Today, the majority of the Waorani are fluent in *Castellano* with the only exception of some of the elders. The author of this thesis had no knowledge of the former but in return the partial advantage of finding common ground with some of the Waorani on the latter - namely in preferring simple vocabulary and syntax.
3) Waorani ontology, a subject well studied and debated in scholarly literature, differs from this researcher's ontology. This may have been the cause of frequent misunderstandings resulting in broken conversations (with one of the party abruptly terminating a conversation before its completion – without apparent reason – for example).
4) The author's appearance and cultural background (looks, behaviour, but also attire and language), distinctly identified him as an 'alien' actor (most commonly a 'gringo'), which necessarily influenced the nature of all interactions that took place during the field research.

5) The areas visited were very remote and significant travelling time was required to reach them. Entries could not have been arranged independently and without AMWAE's support.
6) Foreign travellers to this area of the country of Ecuador are advised to take a number of health precautions such as extensive vaccinations and prophylaxes. Nevertheless minor health issues affected the ability of this researcher to perform at a constant level during part of the stay.

Before travelling to Ecuador and before entering the communities structured and semi-structured interviews had been prepared for data collection. An audio recorder and other audiovisual material was carried at all times to document important events during field research. For reasons beyond the full understanding of this student, most Waorani engaged in conversation would react negatively to any recording device or questionnaire. The quality of the conversation would decrease significantly and become forced. Significantly longer reaction times to the questions were experienced, resulting eventually in monosyllabic answers. In most cases permission to record (written or digital recording) was not explicitly rejected, but never granted either.

The short amount of time spent in each community allowed for very little time to gain the confidence of the inhabitants. As a result the questionnaires were discarded in favour of informal interviews with one or more parties at a time. The latter case was the most common form as the observed Waorani tend to spend significant amount of time in groups. This complicated approaching an individual to gain his opinion on any matter because before any reply, consultation with his peers in their native language would occur, making it impossible to discern whose answer it really was. Individuals would occasionally engage the author with questions relative to his country of origin, or similar trivial information, but rarely concerning the actual reason of his presence. In most cases conversations were short and dry and often provided little information relative to the author's research question.

The bulk of the collected data thus was generated by participant observation. This researcher was present during all planned activities of AMWAE on the field and could benefit from a preferential channel gained by the inside position of the women and by being somehow affiliated to them. While this may be considered an advantage it could also be regarded as a constraint as there was no time or way to collect data outside of AMWAE's supervision.

Summing up, the data available was collected in the following locations:

AMWAE's office in Puyo; the communities by the Napo River, mainly Gareno and its surrounding settlements; the communities by the *Via El Auca* (i.e. Auca Road), Tiwino and Bataboro.

The main contributors during informal interviews were the nine female staff members employed by AMWAE, distinguished either by their position inside the organisation, where applicable, and otherwise referred to as 'staff members' or sometimes, less formally, the 'women'.

The current president of the NGO; the technical expert on cocoa, also a former president of the NGO; the secretary and bookkeeper of the NGO, the only non Waorani woman of the office; the manager of the Waorani shop and of Waorani Artisanal products, a non Waorani of mixed indigenous descent, capable of speaking several indigenous languages, including *Wao Terero*. Five other staff members, with differing roles of responsibility assigned to each but not specified here.

Special contributors were a Dr. ing. in Agronomy, currently employed part time by TRAFFIC; and an ornithologist who has spent more than a decade in the Oriente region studying and teaching indigenous customs and culture.

3.3 Research Strategy

This research will be purely qualitative. The research strategy selected is a case study of AMWAE because the data could not support broader inferences. Prolonged and comprehensive contact with the Waorani has not taken place to enable this researcher to make claims about them as a people in general. It should be noted however that the Waorani appear in this thesis, but from the point of view of AMWAE. Claiming that AMWAE's view could be deemed representative of that of all the Waorani people would of course be preposterous, but this was as close as this researcher could hope to get in such a brief period of time spent on the field. At least, it should be said, AMWAE is an authentic Waorani NGO, lead and managed by Waorani women. The case study will thus be an Ethnographic Inquiry using Interpretative Phenomenological Analysis (IPA) as a method, making it a purely

qualitative research. What follows is a description of both methodologies, the authors from which inspiration for them was drawn, as well as their application in this research.

3.3.1 Ethnographic Research

Ethnography has its roots in anthropology. Best described as the interpretation of cultures it is centred on the study of people in their own environment, whose "description may be of a small tribal group in an exotic land or a classroom in middle-class suburbia" (Fetterman, 1998, in Genzuk, 2003). The source of inspiration for this methodology has been provided by James Clifford (1983) who defines it as grounded in field work and "a synthetic cultural description based on participant-observation". According to Clifford (*Ibid.*): "Participant-observation serves as a shorthand for a continuous tacking between the 'inside' and the 'outside' of events: on the one grasping the sense of specific occurrences and gestures empathetically, on the other stepping back to situate these meanings in a wider context."

This researcher's favourite author, who – via his book – became an imaginary travel companion before, after and on the field, Howard S. Becker (1998), dedicates a chapter of his excellent book to sound ethnographic practice. His contribution may be very relevant because it provides insights on participant observation: "Ethnographers don't create their data by requiring people to do something special for them – fill out a questionnaire or participate in an interview or focus group. They are, instead, usually at the mercy of the moment, and have to wait for events that would be theoretically important to them to happen while they are doing their research." This has been precisely this students experience during field work. Working with a small NGO with limited resources there was no way to influence agenda setting and only small margins to act independently. All the entries of the communities, as has been already mentioned, were in AMWAE's specific interest and it was by coincidence that these, at least partially, matched the objectives of this researcher. Waiting, sometimes impatiently, for things to happen has been a recurrent theme. Making the most of this apparently uneventful moments, sometimes hours or days, the most challenging exercise. This methodology has been chosen because its approach is grounded in extensive fieldwork. The researcher applying this methodology has the delicate mandate of "developing an insider's view of what is happening" (Genzuk, 2003) and then interpret it, i.e. make sense of its meaning intelligible to outsiders. Genzuk (*Ibid.*) offers a fitting definition when he states that: "Experiencing an environment as an insider is what necessitates the participant part of participant observation. At the same time, however, there is clearly an observer side to this

process. The challenge is to combine participation and observation so as to become capable of understanding the experience as an insider while describing the experience for outsiders."

3.3.2 Interpretative Phenomenological Analysis

As should have transpired from the description of ethnographic inquiry, the main issue with participant observation is finding the proper balance between EMIC and ETIC perspectives, as defined by Marvin Harris (1964). This can be a daunting task and therefore a more specific methodology, i.e. with more detailed instructions to its use, has been chosen to conduct this research. Interpretative Phenomenological Analysis (IPA) "is an inductive approach (it is 'bottom up' rather than 'top down'). It does not test hypotheses, and prior assumptions are avoided. IPA aims to capture and explore the meanings that participants assign to their experiences" (Reid et. al., 2005). "The participant's 'lived experience' is coupled with a subjective and reflective process of interpretation, in which the analyst explicitly enters into the research process" (*Ibid.*). The aim is "reduce the complexity of experiential data through rigorous and systematic analysis" (*Ibid.*). In order to be successful, the latter should be "interpretative (and thus subjective) so the results are not given the status of facts; transparent (grounded in example of data) and plausible (to participants, co-analysts, supervisors, and general readers)" (*Ibid.*). Lastly, and perhaps most importantly, "researchers should reflect upon their role in the interpretative and collaborative nature of the IPA" (*Ibid.*), since they are unavoidably involved in all the stages of the research process. Their presence may influence the participant's behaviour and thus the outcome. The interpretation itself, being highly subjective, will necessarily contain traits, or biases if one prefers to refer to them as such, of the researcher's ontology and cognition. In order to minimise uncontrolled bias, this researcher will have to resort to openly stating and admitting when something, an interaction, an experience and so forth, is beyond his understanding. Similarly, this researcher will make it his mandate to refrain from unjustified speculation as much as possible.

3.4 Framework of Data Analysis

The data collected on the field was written down in detail in two diaries: one for office and field work in which the information was collected and recorded analytically. The other, a travel diary, with more personal impressions and opinions. Since the data collected was not collected in a structured manner – diary entries may record different events and their focus

tends to shift according to what the author is interested in at the moment of the observation – the first approach was to perform a bottom up thematic analysis, using an analytical coding style (an expression of the authors coding preferences). Codes were then grouped in code families which helped to identify five main domains that can be related to cocoa: development, agricultural practices, capital, place and networking. Each domain will be explored in an own chapter, which will form the bulk of the analysis. Each chapter will include excerpts from the researcher's field notes, such as diary entries, experiences or vignettes, i.e. brief narrative renditions of events. These will differ in that the researcher's position may vary: in a diary entry the researcher may state his perspective at the moment of the participant observation while a vignette may be presented from the perspective of a different actor, such as a staff member of AMWAE or the agronomist.

Chapter Four: Development

4.1 Introduction

This first chapter will assess how cocoa can assume the meaning of development from AMWAE's perspective and, by extension, the Waorani that inhabit the communities of the intervention. First the cocoa intervention will be described and analysed. Then governmental development plans, in the form of the plans drafted by the Province of Pastaza will be assessed and discussed. Each subchapter will be introduced and later closed with a *discussion* paragraph, in which the author will try to use existing literature to support and expand the interpretation of observed events. In the conclusion final considerations, based on literature, shall close the chapter.

4.2 The Cocoa Intervention

4.2.1 Introduction

The design of the cocoa intervention that will be presented in the next subchapter will provide a rendition of how the former has been presented to this researcher, and how it is advertised to the general public. In the following paragraph the implementation of the intervention will provide observed and reported information concerning its operating rationale. In the final paragraph a discussion will provide a critical assessment of the previous two subchapters.

4.2.2 Design

The cocoa intervention was designed by international NGO TRAFFIC to reduce uncontrolled wildlife extraction from one of the most bio-diverse areas of the planet, the YNP. The inhabitants of this particular area, the Waorani people, being highly skilled hunters, engaged increasingly in wild meat trade. By doing so they were able to generate profits that enabled them to purchase items such as rifles, medicine and fuel - at the cost of endangering the wildlife resources of the park. Waorani hunters had to venture deeper into the jungle to hunt and with a reportedly lower success rate. Eventually the consequences became felt not only by the hunters, but by the general Waorani population who was still relying on hunted

wildlife as a primary form of self subsistence. During the design phase, an indigenous Waorani women association, AMWAE, was identified as a suitable partner to cooperate in, and eventually take over, the cocoa intervention. The role of women in Waorani society and their previous involvement in basic forms of agriculture made them suitable candidates, unlike the men who openly rejected any involvement. TRAFFIC and AMWAE, in accordance with fellow Waorani in the communities, agreed that *theobroma cacao,* a native species to Ecuador's Amazon Rainforest, would be suitable for the purposes of a planned intervention. Seven out of the 32 communities located in the Waorani Ethnic Reserve were initially identified to be part of the intervention. Since the intervention was designed with the mandate of natural resource conservation, clearing substantial parts of forest would not have been admissible to obtain space for cocoa plantations. Therefore previously deforested plots were identified and the cocoa trees that were planted eventually contributed to reforestation efforts, adding to the – reportedly – environmental value of the intervention.

Theobroma cacao, a common cash crop, widely diffused in the tropics, would not be sold at farm gate price however. The intervention was designed to collect the cocoa from the communities and process it into chocolate. The refined product can be sold at a higher price than the raw product because the added value is not lost in the process. The cocoa would be grown organicall[1]y in the community and the processed chocolate would be finally sold under the 'Wao Chocolate' brand; properly packaged to be an attractive product with an own message and story.

4.2.3 Implementation

Cocoa trees were planted in seven out of 32 communities in the northern quadrants of the Waorani Ethnic Reserve between 2011 and 2012. The trees require three to four years to become productive and information on what happened during this period could not be retrieved. When this researcher arrived to Ecuador, chocolate production had already started, albeit in an embryonic state. The cocoa, grown using organically certified inputs, is purchased by AMWAE, with the support of TRAFFIC, from the communities. The raw cocoa beans, correctly dried and fermented, are purchased at the above-market price of $1.20 per pound (equivalent to 1.10€ per 454 grams, or 2.42€ per kilo[*]). If not correctly dried and fermented they may be bought anyway (at least in an initial phase) but for the reduced price

[*] Dollar to Euro conversion rate applied on the 22nd of July 2015: $1.00 to 0.91€. Pound to kilo conversion rounded at the third position after the comma.

of $1.00 per pound (equivalent to 0.91€ per 454 grams, or 2.00€ per kilo*). Conventional market price in the Amazon region is reportedly lower and estimated at an average of $0.80 per pound (equivalent to 0.81€ per 454 grams, or 1.78€ per kilo*) which guarantees a higher price to Waorani growers. The raw cocoa beans are then shipped to a processor via lorry. TRAFFIC negotiated a contractual agreement with BIOS of Quito, one of the country's largest chocolate processors, whose profitless involvement generates fiscal advantages on grounds of fiscal responsibility. This was reported by staff members of AMWAE, as well as by TRAFFIC's agronomist but an official statement from BIOS could not be collected by this researcher. After processing, the chocolate is wrapped in anonymous silver wrapping and packed in boxes before being returned to AMWAE's central office in Puyo. The chocolate processed by BIOS comes in two different varieties or qualities: 50% cocoa content milk chocolate and 70% cocoa content dark chocolate. Each variety is respectively produced in 30 gram and 100 gram bars. The two varieties can be sold at different prices: the dark chocolate quality is more expensive than the milk chocolate because of its higher cocoa content. The different sizes are meant to increase the marketability of the product by being more attractive as a single serving snack. When this researcher conducted his field research, exact prices for each product were not yet exactly defined. In the Waorani shop in Puyo, just in front of AMWAE's office, mainly 30 gram chocolate bars of both varieties were available. This researcher noted that the milk chocolate could be purchased for $2 while the dark chocolate could be purchased $3.50. Further considerations on retail prices will be made in chapter six.

4.2.4 Discussion

In the previous two subchapters details concerning the design and the implementation of the intervention have been provided. These will now be discussed with the aid of other literature in order to provide some critical reasoning regarding the intervention.

The first part, on the design of the intervention, leaves much room for speculation. While many papers report the issue of declining wildlife population as one of the most relevant problems in the Yasuní – other problems being deforestation and pollution by oil extraction operations – it is unclear how much of it may be attributed to the activity of Waorani hunters. Similarly it is difficult, as will be discussed later, to determine just by how much the intervention may impact the matter.

To claim that cocoa can be linked to development from AMWAE's perspective, which is what this researcher would like to accomplish in this chapter, it would be helpful to have a

complete picture of the situation existing prior to the intervention. Unfortunately, this is historical data that this researcher lacks. On the other hand, what is meant here by 'development' should be clarified. The meaning of the term development indicates "a specific state of growth or advancement" or also "an event constituting a new state in a changing situation" (Oxford Dictionary, 2015). In broad terms development could be defined as "a multi-dimensional concept in nature, because any improvement of complex systems, as indeed actual socio-economic systems are, can occur in different parts or ways, at different speeds and driven by different forces" (Bellù, 2011).

This definition helps to clarify how difficult it can be to attribute 'development' to a single factor or driver, or indeed how difficult it can be to measure the individual impacts of the latter. To make things easier a distinction between different typologies of 'development' can be made, as indeed Bellù (2011) suggests in his paper:

Economic development: i.e., improvement of the way endowments and goods and services are used within (or by) the system to generate new goods and services in order to provide additional consumption and/or investment possibilities to the members of the system.

Human development: people-centred development, where the focus is put on the improvement of the various dimensions affecting the well-being of individuals and their relationships with the society (health, education, entitlements, capabilities, empowerment etc.)

Sustainable development: development which considers the long term perspectives of the socio-economic system, to ensure that improvements occurring in the short term will not be detrimental to the future status or development potential of the system, i.e. development will be "sustainable" on environmental, social, financial and other grounds.

Territorial development: development of a specific region (space) achievable by exploiting the specific socio-economic, environmental and institutional potential of the area, and its relationships with external subjects.

These four variants of 'development' are by no means the only ones existing but they may suffice for the purposes of this analysis. Proceeding in order, an argument for how the cocoa intervention fosters economic development shall be made. The description of the intervention includes a number of economic aspects, such as market prices, added values and concepts of

marketing. This becomes evident in the 'function' part, where prices are discussed and cocoa beans are evaluated on the basis of their quality, effectively providing an economic incentive to efficient growers. If the intervention continues according to plan, AMWAE will eventually be supervising a conspicuous amount of economic transactions that were not occurring in this fashion, and in these volumes, prior to its beginning. Again, if everything should go according to plan, the economic effects should be felt in the communities as well. Human development may also be caused by the cocoa intervention, not only supported by the economic returns mentioned above but also by the potential acquisition of agricultural skills and knowledge, which would *de facto* increase capacity. Sustainable and territorial development should also be addressed briefly. The first appears to be the central mandate to the whole intervention while the second fits precisely with Bellù's (2011) definition. Interestingly they are also the broadest domains and the most difficult to link – at least exclusively – to cocoa.

From the perspective of AMWAE the intervention may cause various degrees of development. This is most evident in the light of the fact that AMWAE should eventually assume complete control of the operations, without external assistance. By doing so the organisation will have acquired a whole new set of activities and responsibilities which were previously nonexistent. AMWAE's cocoa intervention can be considered a relatively small intervention. Interestingly however, it seems to fit within the schemes of broader development plans, such as those that are reportedly being pursued regionally by the individual provinces.

4.3 The Development Plans of the Province of Pastaza

4.3.1 Introduction

AMWAE's cocoa intervention is a relatively tiny effort. It operates under a broader framework, in which provincial, regional and national development plans and goals are drafted and pursued. Information on the latter is difficult to obtain from governmental sources also because of the principle of subsidiarity, spawned by the current state of decentralisation enforced in the Republic of Ecuador.

The Province of Pastaza has thus been chosen as the most suitable level of organisation to retrieve information from, even though it is not the smallest, lowest or least centralised

competent authority. It is the Province in which the majority (but not the totality) of the Waorani population lives. AMWAE's office lies in the province's capital as do the majority of the Waorani communities.

Before proceeding with the development plans of the Province of Pastaza, one should begin with the territorial, political and administrative partition of the Republic of Ecuador.

4.3.2 Development Plans until 2025

Ecuador's 2008 constitution divides the country into smaller political and administrative entities: Provinces ('Provincias') form the first level of the political administration of the country, followed by cantons ('Cantones'), that form the second level and Parishes ('Parroquias'), which may also be translated to wards or districts that form the third and lowest political-administrative body.

A total of seven Regions ('Regiones'), two Metropolitan Districts ('Distritos Metropolitanos') and one region under special regimen ('Regime especial') exist, that should form *de iure* the largest entities of the country. These are not yet fully legally established however and at present can be defined as planification areas ('zonas de planificacion') that should form the structure of the future regions. This is relevant because decentralisation has the effect of having a multitude of different local actors participating in a broader development effort. This researcher heard from different sources, most importantly from TRAFFIC's agronomist, about territorial development plans: AMWAE's cocoa intervention fits in the government's development plans. Regional guidelines, he claimed, were currently focussing on an expansion of productivity of the Amazon region. The regional development plans have delegated the provinces to take action. As a result each province drafted individual plans. In the case of the Province of Pastaza, as the agronomist claimed, the objective was to increase the amount of fruit tree species, to ensure an increased inflow of agricultural products to urban centres. Unfortunately retrieving any kind of official information from government websites has proven tedious. Of the information that could be found, some appears to be terribly outdated. However, some relevant documents exist. The development plan of the Province of Pastaza until 2025 ('Plan de Desarollo de la Provincia de Pastaza al 2025'), in its reviewed 2012 version, contains much information on the administrations goals and objectives:

Firstly the efforts of the Ministry for Coordination of Production, Employment and Competitiveness ('Ministerio Coordinador de la Producción, Empleo y Competitividad') to

foster change are mentioned. The latter are contained in an 'Agenda for the productive transformation of Ecuador 2010-2013'. Given agenda contains seven sectors of production: Agriculture, Fishery, Hunting, Aquaculture, Tourism, Industry and Services. On the basis of these guidelines the Province of Pastaza analyses the quality and quantity of their productivity. The development plant thus identifies "potential areas for agro-productive exploitation": these are "areas whose production potential and natural characteristics allow the realisation of agricultural and agroforesty activities with optimal returns" (GADPPz, 2012). Interestingly the distribution of these areas on a map show a clear centralisation around the urban centres of the Province, all of which lie in the West. As a result efforts aimed at developing the productivity of the region become gradually less and less capillary until they appear to fade in the east most Amazon area. Agricultural production in this area is destined to the market (mainly sugarcane but also cocoa) or for self subsistence (mainly plantain and yucca), the report states. Several crops are assessed in this section as is cocoa: figures for a previous investment in increasing cocoa production are provided as is a list of the main problems concerning this crop – a selection of which will be rendered here:

- Lack of capacity
- High production costs
- Cultivation without planning
- Low access to financial support
- Little incentive for growers
- Weak producer organisations

In its second chapter the same document focuses on the formulation of proposals concerning the development of the province. The most interesting, and relevant for this thesis will be presented here.

From the subchapter on "Socio-cultural system": "enriching the existence of the 7 ancestral indigenous nationalities and increase their diffusion as part of the cultural richness of Ecuador" and "promoting the development of education and health that incorporate ancestral practices". From the "economic productive system" subchapter: "Encouraging an economy based on principles of gender balance and intercultural diversity"; "boosting environmentally sound means of production" and "boosting services which have high added value, quality and are rich in terms of innovation and knowledge and which use natural resources rationally and

efficiently". The list goes on but the items selected should provide an idea of existing development goals.

4.3.3 Discussion

With this subchapter this author had the intention of providing more information on the – in this case provincial – government development plans in which the cocoa intervention is taking place. It should be noted that these plans are enforced to an extent which this researcher cannot state. As should be noted, the aforementioned goals target the livelihoods of the indigenous people as well as their education and health. They also aim at increasing the productivity of the Amazon districts without undermining the natural resource base. In this context it would appear that AMWAE's cocoa intervention would fit the regional development plans rather neatly since the intervention tackles most of the weaknesses that are listed in the province's development plans. This should provide an advantage over other growers who may be drawn to the sector by the expansion advocated by the province.

4.4 Results

The aim of this chapter was to analyse if, and to what degree, cocoa could assume the deeper meaning of Development for AMWAE. As stated in the literature, development may assume different meanings and come in different varieties. Development interventions "involve purposeful action by an agent to create and facilitate change in a particular setting or system" (Romme, 2011). Although Romme deals with organisational development interventions, i.e. interventions that have the purpose of changing and restructuring an organisation, his definitions are well suited and provide an interesting contribution to this case. He continues: "This definition acknowledges that emergent change is also likely to occur. The combination and interference of emergent and purposefully designed processes may or may not produce the intended outcomes. Moreover, it may produce results that cannot be understood as positive or negative outcomes, but imply new understandings and dimensions of the incumbent [organizational] system." Three main elements thus transpire: 1) An intervention is a voluntary act by one or even more agents that is aimed at causing change. 2) Change is recognised as being inevitable and therefore the change caused by the intervention is merely trying to influence the direction of the inevitable change that will occur. 3) Results are

independent from the intention of the intervention and may bring about forms of change that are beyond their objectives. With this theoretical framework in mind one may conclude that the cocoa intervention may indeed assume the deeper meaning of development from the point of view of AMWAE. The intervention fits the broader development plans of the province and AMWAE as an organisation could thus be regarded as an actor participating in the occurring change. Whether the intended results will be met and whether they will generate positive or negative outcomes cannot be predicted but becoming conscious of being able to direct change with purpose may already be regarded as a positive development.

Chapter Five: Agricultural Practices

5.1 Introduction

This chapter will explore how cocoa can be linked to the domain of agricultural practices from the perspective of AMWAE and, by extension, the Waorani in the communities of the intervention. Agricultural practices are intended as "on-farm production and post-production processes resulting in safe and healthy food and non-food agricultural products" (Poisot *et al.*, 2004). These are being taught in the communities in so called capacity building workshops which have the twofold purpose of instructing AMWAE's staff, as well as growers residing in the communities of the intervention. This domain is a crucial one and also one for which most data could be collected. Because of the amount of relevant information, observed events on the field and their contents will be rendered in individual subchapters. Each subchapter will be followed by another subchapter, in which the observations will be interpreted in order to provide a better insight. In the concluding subchapter, the interpretations will be collectively used to support the initial thesis of the chapter, namely that cocoa can assume the deeper meaning of agricultural practices for AMWAE.

5.2 Capacity Building Workshop in Gareno

5.2.1 The Working Environment

This researcher took part in a capacity building workshop that took place in the community of Gareno. The original purpose of the workshops was to instruct AMWAE's staff members about the necessary agricultural practices that have to be carried out to ensure the success of the intervention. The objective was to help the women to gain sufficient knowledge not only to be able to support communities by carrying out similar workshops on their own, but also by becoming able to inform and involve other potential communities in the future, thus increasing the outreach of the intervention. To conduct the capacity building workshops, an agronomist affiliated to TRAFFIC joined AMWAE's staff. This person had worked with AMWAE before and was well known and respected in the community of Gareno. The agronomist's other employment, his family business, was also growing cocoa and processing it to chocolate, which made him highly qualified for the purpose of the workshops. The

workshops should have been addressing exclusively AMWAE's staff but this was not achievable in the community of Gareno. The group of visitors, formed by 7 staff members of AMWAE, the agronomist and this researcher, attracted a lot of attention because visitors are not common and generate a lot of interest. The abundance of supplies carried by the crew for their subsistence may also have been a contributing factor. During the first day the whole community of Gareno was present and eventually members from nearby settlements joined as well. As a result the number of the participants at the workshops soared: approximately 30 women and scores of children of all ages attended jointly, resulting in a distinctly chaotic environment. The agronomist and the president of AMWAE were allowed to make use of one of the communal houses, formerly a classroom, for the workshops. Their presence was celebrated as the beginning of a new stage of the intervention that had begun years prior. Reportedly, neither the women of AMWAE, nor the agronomist had been there since (with the exception of the president of the NGO, whose sister and other relatives live near Gareno).

5.2.2 Interpretation

At present AMWAE still relies on outside help to implement the cocoa intervention but capacity building workshops are being conducted to reduce this dependency. Agricultural practices in cocoa are understandably new to staff members because very few of them are carried out in the initial growing stage of the trees; a stage in which most of them were not involved. With the beginning of the productive cycle however, the communities of the intervention will require more assistance and inputs, which creates the necessity to train AMWAE's staff in these agricultural practices. The involvement of TRAFFIC's agronomist has to be arranged and his time is limited, not to mention costly: TRAFFIC is currently paying his wage for the support given in the communities, thus relieving AMWAE of the costs. Since he also works on other projects, besides running his own family business, his availability must be negotiated and planned in advance.

5.2.3 The Theory

Although the workshops were meant to address only AMWAE's staff members, the agronomist proceeded by engaging the whole community. The first item he discussed concerned the existing cocoa varieties, followed by notions of why these must be kept separate. The cocoa beans depend on the variety of the tree that spawned them. In Gareno the

intervention planted two distinct varieties, whose seed, i.e. the cocoa beans, must be processed differently. This is because the cocoa beans, once removed from the fruit pods, must be fermented properly before being dried. To gain a visual support to aide his explanation, the agronomist invited two women from the audience to step forward. The first lady was wearing a yellow shirt and was therefore representing the first variety, the national 'fino de aroma'. The second lady was wearing red and thus represented the second variety, the recently imported and improved cocoa variety known as 'CCN51'. The audience seemed delighted by the theatrical display, particularly the kids. The importance of distinguishing varieties was repeated several times and bad practices were explained: the 'yellow' variety, must be fermented for three to four days, while the 'red' one must be fermented longer, between seven and eight days. Mixing the varieties would result in a heterogeneous fermentation, with one variety being either under or over fermented. The importance of drying the beans correctly was also stressed, because not properly dried beans cannot be processed and must be treated first, which results into additional costs.

5.2.4 Interpretation

The fact that many members of the community voluntarily participated does not imply that they did so because of direct interest in the topic. Outsiders are generally received with great interests and curiosity. There were however women in the community that were genuinely interested and that participated more actively than others. The agronomist's insistence on highlighting and reviewing the issue of the differing varieties was relevant because of its consequences. The raw cocoa beans, or indeed the trees, are difficult to tell apart and this researcher could not learn to differentiate either. This suggests that growers must know what species they are growing in order to process the cocoa beans correctly. For this reason the visual approach used by the agronomist seemed appropriate and, at least for the duration of the workshops, proved effective. During later workshops varieties were only referred to as 'red' or 'yellow'. Processing the cocoa beans, i.e. fermenting and drying them, is important because it will determine the quality of the final product. Furthermore, beans can be dried industrially, in a processing plant, but this will be regarded as an additional operation by the processor and will result in extra costs. Incorrectly fermented beans however must be discarded, thus adding to post harvest losses.

5.2.5 More Theory

The agronomist, now addressing mostly AMWAE's members, explained concepts regarding the disposition of trees in a plantation. Two techniques were graphically displayed on blank poster paper attached to the wall: the square configuration ('cuadrado real') and the pinpoint configuration ('tresbolillo'). The second, the agronomist explained, was most suitable for cocoa and allowed to plant significantly more tree by maximising land use. Furthermore this configuration would allow a farmer a better overview of the plantation at any moment, made possible by the diagonal viewpoint that would otherwise not be available. In addition to plantation techniques some notions on the genetics of the cocoa trees were introduced. The agronomist explained that cocoa trees may be harvested for seeds following the natural reproductive cycle of the plant as well, but that this could generate unpredictable results. The cocoa beans, which are actually the seeds of the tree, are contained in pods. According to the agronomist the best seeds, contained in the fruit pods, are spawned by the tree in points furthest from the stem. This mechanism would ensure better offspring and would occur naturally. If a farmer would like to collect seeds, it is natural to assume that he would identify his best trees to ensure the propagation of the best genetic material. This would rarely occur with cocoa however because the tree, as the agronomist put it, "tends to be very promiscuous", which meant that the best tree would pass on only approximately 50% of its genetic material and could be pollinated by virtually any other species. As a result, successful breeding of species could be a difficult task even for the most skilled growers. AMWAE and the Waorani should thus refrain from planting their own seedlings and purchase sapling instead. Saplings, i.e. young trees, may be generated the conventional way, from seeds, or vegetatively, through cutting and subsequent rooting from existing trees. The latter carry the same genetic material of the mother plant, and share almost identical characteristics, which can be an advantage. This last digression was used to highlight a problem of conventional seedlings, mainly that they vary in size and often can be substantially bigger, which means they need to be planted in lower densities. Commercially acquired saplings should be planted at a nominal distance of three meters from each other (calculated from stem to stem) while conventional seedlings may need between four and nine meters. This would negatively influence the amount of trees that may be planted in a plantation, thus limiting its productivity.

5.2.6 Interpretation

Explaining cocoa farming by starting from plantation configuration may seem excessive but in practice this was a necessary theoretical background. AMWAE's women are required to learn these techniques so that they may apply them in the future and this information may be useful to growers in Gareno as well, since they are in the process of up-scaling production. Maximising and optimising plot usage is a recurrent topic in agriculture and necessary in an area of the Amazon where suitable plots are limited (because, as specified by AMWAE's unwritten mandate, the intervention does not allow deforestation for the purpose of agriculture). The agronomist often highlighted bad practices when he spotted them on the field and this researcher noted that they occur quite frequently and in many other plantations other than those in or around Gareno. Notions concerning the breeding of cocoa trees had the purpose of discouraging any Waorani initiative in this regard and to foster the use of externally provided saplings. For AMWAE this will result in the additional task of logistically ensuring that a sufficient amount of 'improved' saplings are delivered when necessary; and ensuring that these are planted instead of their naturally grown counterparts. Again, as the agronomist specified, enhancing productivity is the priority.

5.2.7 Theory for the practical application

Since the capacity building workshops included a number of practical exercises to be carried out on the field, a briefing was conducted *a priori.* Firstly a number of tools were introduced and explained, later followed by their correct application. Then fertilisers and pesticides were discussed. TRAFFIC's agronomist and AMWAE's staff jointly provided tools for the practical exercise. Particular emphasis was put on the importance of maintaining and conserving the tools. The latter had to be imported from abroad and were thus very expensive. It was therefore mandatory that they were kept with care and not lost or misplaced by their users. The tools provided were a foldable pruning saw and a piston knapsack sprayer. The second had been already delivered to the community of Gareno and some time was required to identify where it was kept. Other tools, such as the machete, were provided by the inhabitants and needed no introduction. The agronomist explained that fumigation had to be performed twice a year and that this operation was necessary from preventing moulds and other illnesses that could affect the trees of the plantation. A number of products could be used for this operation but not all of them were certified for organic use, thus making them unsuitable for the plantations of Gareno. TRAFFIC and AMWAE would provide the required

product to this and other communities in the intervention but the growers would have to cooperate and share it amongst them as in most cases plantation would vary in size and fractions of the 200 gram bags would suffice. The product in question, a fungicide: copper hydroxide, had to be treated carefully and some precautions were reviewed. It should be applied wearing a surgical-type mask and children should be kept at a distance during and after fumigation because inhaling this product could be linked to increased cases of tuberculosis. Furthermore, remaining bags of this product should be kept out of the reach of children and kept dry and safe. Other agricultural practices involving agrochemicals were briefly mentioned but no detail was provided as the Waorani growers were not expected to perform them by themselves at the moment. The products for such operations could be too harmful to be made available without proper training. Lastly fertilisers were discussed and the agronomist looked pleased when his audience could identify almost all the ingredients needed to make BIOL, a homemade fertiliser that provides nutrients for both soil and plant.

5.2.8 Interpretation

The agricultural practices that were introduced require tools to be carried out properly and the fact that these were only provided at this stage of the intervention explains why the plantations were not kept in optimal conditions. Providing tools, and the required knowledge of how to maintain and use them, becomes another of AMWAE's responsibilities. One of the difficulties regards taking care of the tools and ensuring that these are not misplaced, lost or even sold. This is evident as it was one of the most stressed concepts before these were handed out. A previously delivered tool, the piston knapsack sprayer used for fumigation, could not be immediately found: it had been misplaced and initially nobody seemed to know who had taken custody of it since. Fortunately it could be retrieved in time for the practical exercise. It was still wrapped in its original packaging. The agricultural practices which rely on the use of chemicals, i.e. pesticides and fungicides, were reviewed with particular care and detail - necessarily. The use of chemicals in agriculture is new to most Waorani, therefore the benefits and the dangers must be explained thoroughly. To do this the women of AMWAE must be the first to learn about them. At this stage only the least harmful chemicals were being introduced. Copper Hydroxide, a fungicide which has been described as relatively harmless, must still be treated and applied with care. Children are especially at risk during the application because they are generally allowed to roam freely and commonly encouraged to observe or sometimes even take part in adult activities. The agronomist however explained

that they should be kept from plantations during and after application (for at least two days) because exposure to this specific agrochemical product could be linked to increased cases of tuberculosis. More harmful chemicals were mentioned but not discussed because at present the Waorani growers are not expected to apply them by themselves. Who will perform these operations and when remains unclear to this researcher. Organic fertilisers, such as BIOL, can be obtained from the plentiful natural resources of the Amazon. Preparation however requires some time so learning to think ahead will be necessary.

5.2.9 Practical application

During the practical workshops only four plantations could be visited because the large numbers of participants and changing weather conditions slowed down operations. The tasks, carried out one by one were first demonstrated by the agronomist, then replicated by AMWAE's staff and later by all the participants who wished to practice themselves. What follows is a step by step rendition of the agricultural practices and an explanation of their importance, as provided by the agronomist:

- *Clearing:* A Machete must be used to clear vegetation in and around the plantation to facilitate subsequent operations. The plantations should be cleared frequently and all areas of the plot should be easily accessible at all times. A circular area, approximately matching the size of the crown of the tree, should be cleared before other operations can be carried out. Clearing is also necessary to be able to have a better overview when inspecting plantations for potential threats or diseases.
- *Pruning:* The foldable pruning saw must be used to remove the bulk of the vegetative part of the cocoa trees. Fruit pods can grow anywhere on the tree (both on stem and branches) but trees should be kept small in size so that they may be reached without the need of ladders. Only three main branches, growing outward from the stem should be kept while the others should be removed. Ideally, the three branches should grow in opposing directions in order to avoid competing between them. The objective is to allow sunlight to fall directly into the tree from above. Similarly, branches competing with neighbouring trees may have to be removed or be trimmed. Branches growing downwards, smaller branches and sickly fruit pods may all be removed. The discarded parts should be scattered around the stem because they will return nutrients to the soil and protect the tree from moulds.

- *Fumigating:* A knapsack sprayer is used for this operation. Once the tank has been filled with water the correct amount of copper hydroxide can be added. The solution must later be sprayed evenly on the whole tree, preferably beginning from the top. The piston must be operated to generate pressure in the tank, which can be released with a trigger on the grip of the lance. The nozzle must be adjusted to create a vaporising type of spray, which covers a broader area than a concentrated beam.

5.2.10 Interpretation

The practical aspect of the agricultural practices is the most important and perhaps the most crucial one. Understanding why they are being carried out could be regarded as secondary to them actually being performed timely and correctly, at least in the beginning. Interestingly, this is one of the aspects that also raises more questions. It is difficult to predict how Waorani growers will conform to working in conventional agriculture. From what could be observed on the field, carrying out the tasks should not be regarded as a problem: the participants of the workshops approached the matters playfully and showed dedication and initiative. The problem is that the amount of time and labour required is much greater and more intensive than most of the other agricultural activities that the Waorani traditionally pursue. The type of agroforestry that the Waorani engage in is distinctly less labour intensive: according to Lu (2010) they cultivated sweet manioc, plantain and other crops but remained essentially forest product gatherers, i.e. displaying a "subsistence orientation" (*Ibid.*) quite different in intent from commercial agriculture.

5.2.11 Purchasing Cocoa and Conclusion of the Workshops

In the final part of the workshop the agronomist and AMWAE's staff thanked the community of Gareno for their attention and collaboration. Before concluding other important issues were addressed however, namely the importance of the collective effort on behalf of the Waorani participating in the intervention. Lastly the growers of Gareno were invited to bring their harvest to one of the communal houses for collection. Fifteen growers, the agronomist and AMWAE's staff gathered around an electronic platform scale that was produced for the occasion. The agronomist had previously briefed the managers of AMWAE on the importance of this process. The quality of the cocoa must first be assessed and only correctly processed cocoa beans must be purchased for the premium price. Incorrectly processed beans

could still be purchased but for a lesser price (see next chapter for prices). The women had to be firm and rigorous in this process, without any exceptions. Each grower's batch was inspected: a minimum of three beans were inspected to assess their quality. In this process a knife is used to open the beans and their smell, colour and consistency reveal if fermentation and drying have been performed properly. In this occasion only three out of 15 growers were able to be paid the full, premium price. The others all received the reduced price, which is still higher than the average market price. The total cocoa beans collected during this entry did not remotely match the quantity the agronomist informally estimated to collect.

5.2.12 Interpretation

As the previous paragraph reveals, agricultural practices do not only affect the final yield, but also the final price that growers can get. Post harvest practices, namely fermenting and drying are necessary to produce a quality product. In Gareno, only a fifth of the growers were able to receive the premium price for their beans, which indicates that much progress must still be made by Waorani growers in this community. Furthermore, evaluating the quality of the cocoa beans is not a simple task and knowledge and experience are required to identify not only the correctly processed product, but also the potential mistakes - should there be any. This is relevant so that advice may be given to growers to help them improve over time as well as to justify the price difference.

5.3 Growers in Tiwino and Bataboro

The case of growers in Tiwino and Bataboro will provide a series of examples throughout the thesis and will be used in this chapter to provide a comparison to the plantations of the communities in Gareno. In Tiwino AMWAE and this researcher inspected three plantations, one of which was not part of the cocoa intervention. The owner of the plantation had evidently cleared a substantial part of the forest to make place for a mixed plantation (plantain, pineapple, coffee and cocoa) and was in the process of clearing another adjacent area. In addition to this he was making use of non organic agricultural inputs and had planted the different crops in an inconsistent fashion, with little regard for spacing. The other two plantations in Tiwino, which were part of the intervention, were better arranged but the trees were too young to be productive. In the community of Bataboro a large plantation, approximately two hectares in size according to the community members, was definitely the

best kept. The trees were on the verge of productivity but AMWAE's staff members agreed that the trees were planted closer than recommended and required urgent pruning, since they were competing for sunlight.

5.3.1 Interpretation

This brief parenthesis on other plantations that were observed serves the purpose of confirming the importance of AMWAE's involvement in explaining agricultural practices and in arranging capacity building workshops. Agriculture is becoming more common among the Waorani but external guidance can be of great help. In Tiwino a grower who began his activity independently was contributing to deforestation, which is arguably the most negative impact of agriculture in an area with such high conservation value. This and the use of conventional inputs may disqualify him from joining the intervention in the future, as will be discussed in chapter seven. Other growers in Tiwino on the other hand were doing comparably well because they conformed, at least partially, to AMWAE's mandate. Since their plantations were in an intermediate stage, there will be time for them, and for AMWAE, to make preparations for the next stage in their development. The plantation in Bataboro on the other hand, should soon be visited by AMWAE because with the proper inputs and the correct agricultural practices, it could become a valuable resource for the whole community.

5.4 Results

5.4.1 Foreword

This chapter has been subject to a light degree of ambivalence because the capacity building workshops had the twofold objective of training AMWAE's staff as well as creating capacity among Waorani growers in the communities. In this chapter, more than in others, the line between the two is very thin, making them sometimes almost indistinguishable. With very few exceptions AMWAE's staff members had the same level of knowledge as the participants during the workshops. The main difference is given by who was supposed to learn what: staff members were supposed to learn everything, while growers only about agricultural practices that they may be required to make use of. Other than that the two may be effectively considered equivalent.

5.4.2 Results

Stating that for AMWAE cocoa may assume the deeper meaning of agricultural practices may seem obvious at first. After all, cocoa, being a cash crop, must be planted and grown and it must be subject to a whole number of operations that in this chapter have been defined as agricultural practices. These are clearly more than an important component of the intervention and form its backbone. This is particularly true for AMWAE and, by extension, the Waorani in the communities of the intervention. Cocoa is not a tree that was traditionally cultivated by the Waorani and indeed only few examples of trees voluntarily managed by the Waorani as a people exist. While this researcher cannot make claims concerning the general understanding of agriculture by the Waorani, the simplified examples and techniques to which the agronomist resorted suggest that these are limited at best. This is not always true of course as certain community members displayed confidence with elaborate agricultural practices which they had been taught years before. Summing up, this indicated that very different levels of knowledge and understanding exist, even in the same community. Of the concepts taught during the workshops, most had the purpose to improve agricultural practices; others to prevent bad practices (post harvest losses for example) and yet others were only briefly mentioned but were never meant to be performed because of their potential danger (agrochemicals). Beside the cocoa observations on the field revealed that the Waorani appear to be slowly and independently increasing their involvement in agriculture. AMWAE, supported by TRAFFIC, is contributing to this phenomenon and plans to up-scale the intervention will do so even further. From AMWAE's perspective this means a lot of added work and responsibilities. Teaching the necessary agricultural practices to the Waorani in the communities and ensuring that these are respected in the best interest of the community, will determine the success of the intervention. To do so AMWAE and her staff will have to engage the communities more often and more directly. Transitioning from small scale subsistence horticulture to 'commercial' cash crop farming requires a different mindset. It implies that growers should adopt a more business oriented vision, in which efforts are repaid by economic returns. Whether this change in behaviour is intrinsically shared by AMWAE and the Waorani in the communities this researcher cannot say. Nevertheless the whole intervention relies on it. The growers in the communities will have to acquire new knowledge and learn to apply it. The capacity building workshops may be described as a starting point at best. Managing a large plantation requires effort as well as tools and agricultural inputs. Most

of all it requires hard work, of a nature well different from the one known to the Waorani. This researcher was astonished by the quantity of resources that are naturally provided by the Amazon Rainforest. Vegetation in this area of the world thrives with little to no help from human intervention. The trees in the plantations that were visited in the differing communities, were almost certainly not subject to high maintenance. *Theobroma cacao*, being native to this climate and part of the world, is perfectly suited to grow naturally in this environment. It's productivity however largely depends on the growers ability to use inputs and perform the necessary agricultural practices. According to the agronomist, productivity begins at a minimum of 50 ripe pods per tree per during each of the two peaks in productivity that occur annually. Below that threshold he would deem the tree 'economically unproductive'. From his point of view and in his expert knowledge, conditions in Gareno and in most of the Waorani communities involved in the intervention are optimal.

5.4.3 Conclusion

The purpose of this chapter was to explore how cocoa can be linked to the domain of agricultural practices from AMWAE's perspective. The NGO and her staff still have much to learn if they wish to successfully continue with the intervention. They also have to provide assistance, both from their central office and on the field. Ensuring that growers are trained and that they obtain the necessary inputs should be their objective. As a result cocoa may be regarded as acquiring the deeper meaning of agricultural practices - not only from AMWAE's perspective, but also from the Waorani growers in the communities involved in the intervention.

Chapter Six: Capital

6.1 Introduction

This chapter will explore how, from AMWAE's perspective, cocoa may be perceived as a form of capital. The definition of capital used for this chapter will be Bourdieus's. In the first part economic capital will be discussed. This part will be the least interpretative as it will provide all the information this researcher was able to gather concerning the economic aspects of the cocoa intervention. The figures provided were collected on the field when the fieldwork has been conducted and may have slightly changed since. They should not be regarded as exact and should, in truth, merely serve the purpose of helping the reader to grasp the potential benefits and costs, as well as the eventual retail value, of Waorani grown cocoa and its final product: Waorani chocolate. In the second part other forms of capital, namely cultural and social will be discussed. Aspects of these, will be linked to the case study in examination, where possible.

6.2 Economic capital

6.2.1 Introduction

Capital is described by Bourdieu (1986) as "accumulated labour" in its "incorporated, embodied form". It "takes time to accumulate and [has] as a potential capacity to produce profits and to reproduce itself in identical or expanded form". It can exist and manifest itself in different forms which can be, to some degree and not without friction, converted from one to another. With this in mind let us begin by its prevalent form: the economic capital. Described as "immediately convertible into money", economic capital is the most pertinent when it comes to AMWAE's perception of this domain. Cocoa can be money, both literally and figuratively. The former statement appears plausible since "[h]istorically, the seeds of cocoa were used as a beverage, used by the Aztecs as far back as 1519 for paying tribute and a currency, [the] 'cocoa bean currency'" (Esan, 1992). The latter however remained unaltered as cocoa can be regarded as a business; an agricultural product that is rarely grown for the purpose of own, direct consumption, but that must rather be sold on markets to be processed

into something else, namely chocolate or similar by-products. Cocoa however can also be, or eventually be associated to other forms of capital, namely cultural and social capital.

6.2.2 Benefits of cocoa

To the managers of AMWAE cocoa relates very directly to economic capital in the form of liquid currency, namely money, because of the economic flows that it generates. To elaborate on that one shall proceed in order, beginning with the economic benefits: cocoa can be purchased at a market price of $0.80 per pound (equivalent to 0.81€ per 454 grams, or 1.78€ per kilo[2]). The real value of cocoa however no longer lies in its beans, because the processed product can generate much higher revenues. Once processed into chocolate, a generic value can be attributed to this product. This value can increase if certain standards are met (such as organic certification) and if the product can be marketed to the right target-consumer, using the best marketing channels. At least in theory. As we shall see, these are the objectives of the cocoa intervention, and while part of them are being presently implemented, others still have to be initiated. What is meant here is that while the final product - branded 'Wao Chocolate'- exists, it still has to establish its presence in the national Ecuadorian market. During weekly planning meetings held in AMWAE's office, the retail of Wao chocolate was openly discussed. Staff members should participate more actively in the marketing process in order to sell the product. TRAFFIC's agronomist, being himself involved in the chocolate industry and trade, recommended to promote it during events that attract as many people as possible. Many such events exist, in neighbouring towns and also in other parts of the Oriente region. Public holidays ('ferias') were defined as the best-option occasions to ensure sales. During these events, mostly occurring in open air areas, streets or squares of towns, a plethora of stands market a quantity of different goods. The Waorani women of AMWAE are well aware of this because they often participate in such events to promote their artisanal products. The chocolate could and should thus be sold in the same manner, if not jointly to the handcrafts at the same stands. Reportedly, the first experiences of the women selling the chocolate were positive, which could indicate that there is interest in the product. According to the agronomist, improvements can be made and the women of AMWAE must adopt a more "entrepreneurial attitude". Prices for the Waorani chocolate have not yet been officially set, but from what this researcher could observe in the Waorani shop in Puyo, 30 gram bars were being sold at a price of $2 for the milk chocolate and $3.50 for the dark chocolate. At these

[*2] Dollar to Euro conversion rate applied on the 22nd of July 2015: $1.00 to 0.91€.

prices returns would already be high if one considers the price of the raw cocoa beans and the fact that it is only a partial ingredient (this depends on the quality of the chocolate produced, in the case of Wao chocolate either 50% or 70%) of the final product. TRAFFIC's agronomist performed an estimated economic evaluation of the returns and although it may have lacked precision, it certainly seemed promising. This researcher would not be qualified to question his expert knowledge and lacks the data to venture in such endeavour. The benefits of selling the chocolate should, at the bare minimum, generate enough income to face the expenses, i.e. the costs of cocoa.

6.2.3 Costs of Cocoa

Whether the benefits would eventually generate profits is impossible to foresee. This is because there are also a number of costs in this operation that AMWAE will have to face. Firstly AMWAE has to deal with a number of fixed costs in order to maintain the office and pay salaries to the staff (which are not all due to, nor will be exclusively paid by, the cocoa intervention). Secondly, the cocoa must be purchased from the communities and there are costs involved in reaching them and transporting the raw material to the processor in Quito. Other necessary ingredients, such as milk and sugar also result in costs - as does the final packaging of the chocolate: a neatly printed cardboard box with nutritional and background information on the product. Other costs are generated by providing agricultural inputs to the communities and by the costs of running capacity building workshops in the very same. Access to the communities is probably one of the highest costs and one that cannot be avoided. Given AMWAE's lack of an own functioning vehicle entries become costly and are difficult to plan. This is because both a driver and a capable vehicle must be rented for the full time of the entry. Since the communities are remote, the driver cannot perform a taxi service, i.e. drop off and later pick up staff members, while carrying out other transfers in between. As a result a vehicle for a two day entry has a starting price of approx. $250, but the cost can easily become steeper. From what this researcher could observe, AMWAE receives extensive support when it comes to agricultural inputs or technical expertise (provided mostly by TRAFFIC). Furthermore, the biennial contractual agreement with BIOS of Quito also results in free processing, which may not be renewed in the future or might have to be renegotiated. Therefore AMWAE will necessarily have to make arrangements to face a potential increase of costs in the future.

6.2.4 About Benefits and Costs

The previous two subchapters have included all the economic information this researcher was able to capture on the field. It is neither exhaustive nor precise data but should help give a general idea of the amount of economic transactions that AMWAE will have to take into account in the future. The economic figures regarding the purchase of the cocoa from the communities have been omitted from this chapter although they should have appeared in this chapter by right. The reason for the choice of disclosing them in the first chapter was to provide an economic dimension to the intervention right away. One consideration regarding the task of acquiring cocoa is still missing however and will be discussed here. As seen in chapter four (see *4.2.3 Implementation*) the raw cocoa beans may be acquired for a premium price if processed correctly; and for a lower price if not (exceptions apply, rotten beans cannot be purchased). It should be noted that both prices are above the current market price which means that there is an economic incentive for Waorani growers in selling only to AMWAE or its affiliates. Interestingly another incentive is given to skilled growers, who may obtain a premium price. As a result the lower price, a mild form of 'sanction', is still higher than the average market price which suggests that the first objective is to ensure that the cocoa grown in the communities of the intervention is actually bought back by AMWAE instead of third parties.

A complete cost benefit analysis could not be conducted with the data but would have provided a better indication of the feasibility of the intervention. Nevertheless, the claim that from AMWAE's perspective cocoa acquires the deeper meaning of money, cannot be disqualified. While so far in this chapter the concept of money has been interpreted as financial currency transactions, the next part shall look at another possible meaning, namely capital.

6.3 Cultural and Social capital

In the first part economic capital in its monetary form has been discussed. In the second, cultural and social capital will be assessed to see whether they can contribute to the purpose of this chapter, namely in establishing a link between cocoa and capital from AMWAE's perception. Beyond economic capital AMWAE is also acquiring cultural capital in its different forms. On one hand in the embodied state: by gaining knowledge of an exclusive

domain. The drive towards this goal is also endorsed by TRAFFIC's agronomist, who was inciting the women to acquire a more 'entrepreneurial' mindset. Almost consequentially this leads the organisation to acquire cultural capital in its other two existing states. Objectified, in the form of the tools, instruments and machines which they provide to the communities of the intervention (and the knowledge to make use of them, eventually). Lastly, in the institutionalised state, by assuming the role of a higher agent in the intervention, an authority mediating the exchange between the cultural capital of having the proper agricultural knowledge to grow cocoa correctly and the economic capital, "by guaranteeing the monetary value" of the latter.

Social capital is also being acquired by AMWAE. The NGO is gradually increasing her importance among other Waorani organisations, such as the overarching NAWE organisation. Because of the cocoa intervention a network is emerging, relying on both existing and potential resources. According to Bourdieu (*Ibid.*) "the volume of the social capital possessed by a given agent thus depends on the size of the network of connections he can effectively mobilize and on the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected." And while AMWAE may not yet, nor in the future, match the importance of NAWE as an organisation, it is growing in its own right. By acquiring new forms of capital its role may be enhanced and be more widely recognised in the future. This is because "every group has its more or less institutionalized forms of delegation which enable it to concentrate the totality of the social capital, which is the basis of the existence of the group (a family or a nation, of course, but also an association or a party), in the hands of a single agent or a small group of agents and to mandate this plenipotentiary, charged with *plena potestas agendi et loquendi*, to represent the group, to speak and act in its name and so, with the aid of this collectively owned capital, to exercise a power incommensurate with the agent's personal contribution" (*Ibid.*). A further expression of 'disembodied' capital could be assumed by the NGO's acquired symbolic capitals. The TV appearance that will be discussed in chapter eight is an example of that. Also, being able to provide personal computers and free access to the internet may be regarded as a contribution in this sense. And lastly, the interest drawn by foreign researchers and their organisations, to AMWAE's case also increases the NGO's symbolic capital.

6.4 Results

In conclusion, after having examined differing forms of capital, it should be considered that in essence "economic capital is at the root of all the other types of capital and that these transformed, disguised forms of economic capital, never entirely reducible to that definition, produce their most specific effects only to the extent that they conceal (not least from their possessors) the fact that economic capital is at their root, in other words – but only in the last analysis – at the root of their effects" (*Ibid.*). Money, a liquid form of economic capital, is evidently the clearest form to be associated to cocoa from the perspective of AMWAE because of the volume of economic transactions that the intervention will generate. The revenues from the sale of Wao Chocolate have the purpose of purchasing and providing inputs but mainly allowing the organisation to purchase the cocoa from the communities, thus improving the livelihoods of Waorani growers. In the design of the intervention prices paid for the pound of cocoa should increase once the final product establishes itself on the market. Nevertheless other forms of capital are being acquired as well, the effects of which will only be visible in the future, at least in the communities.

Chapter Seven: Place

7.1 Introduction

This chapter will explore in what way cocoa relates to the domain of place for AMWAE and, by extension, the Waorani in the observed communities. Since the Waorani inhabit what could be defined as a remote area of the planet, as well as a highly contested one, considerations regarding space and place were made from the very beginning of this research. These two concepts may cause confusion however and therefore a few necessary definitions must be given, which Gans (2002) duly provides: "Because humans are attached by gravity to the surface of the planet, they exist on natural space. Natural space is a presocial notion, so that sociologically, at least, it is literally air over dirt." This implies that 'space' simply exists beyond human existence and that it becomes something else, namely 'place', when human beings find a purpose for it: "Natural space becomes a social phenomenon, or social space, once people begin to use it, boundaries are put on it, and meanings (including ownership, price, etc.) are attached to it. Then the air-over-dirt becomes a lot or a plot, and if residential users obtain control over the bounded space, it becomes their place." (*Ibid.*). Gans's definition fits the purpose of this chapter as it underlines how the transition from 'space' to 'place' occurs because of human intervention. As a consequence this chapter has been titled 'place' because the case studied in this research concerns a cocoa intervention which implies that a specific action is taking place in a defined 'space', thus making it a 'place'. In other words: planting cocoa as part of the intervention implies attributing a new purpose to a specific location, thus making it a 'place'.

With this theoretical background in mind the chapter will be divided in subchapters, each of which will contain a number of observations, followed by an interpretation. At the end of the chapter these will be analysed and presented in the form of results.

In order to provide depth, an excursus will be made on agents that have been causing spatial change in Waorani territory, drawn from the literature. Some of these actors are still having an influence today while others have started later. The chapter 'Literature and Research Context' should have provided enough background information on the Waorani and their past. The most relevant items will be repeated here however, to simplify things for the reader. The literature describes the Waorani as being traditionally nomadic or semi-nomadic. They

would settle for a period of time before moving on to a new place, previously identified and prepared for that purpose. Before peaceful contact with the outside world, the Waorani would attack trespassers intruding on their territory on sight. After years of contact with oil exploration workers and crews, but mostly due to the involvement of religious agents, namely missionaries, the violent confrontations almost ceased. Eventually the Waorani began to gather in larger settlements and gradually decreased their rate of mobility. Present day Waorani are becoming more and more sedentary when compared to their ancestors, but high mobility remains a factor and whole settlements and communities are known to have shifted. The biggest changes to the spaces the Waorani inhabit were caused by petrol exploration and extraction. In order to perform necessary operations roads were built, leading deep into the forest and into Waorani territories. In certain places, conspicuous amounts of forest were cleared to make space for airstrips and base camps. This researcher cannot say over how much time but eventually the Waorani began to make use of the newly emerged infrastructure, to the point that their settlements relocated closer to the new roads. At present, all the communities that this researcher visited during the field research, can be directly reached by gravel roads. All of them are connected to the electric grid and fitted with modern buildings, i.e. built with modern techniques and in durable materials, instead of more traditional, natural materials that were traditionally used.

7.2 Externally Induced Change

7.2.1 Introduction

This chapter will begin with external forces causing change in the spatial perception of the Waorani living in the communities. Observations and literature will be used to describe the externally induced forces, as well as their effects, that have changed the spatial dynamics over time, in order to place the potential changes caused by the cocoa intervention, which are the actual object of this research, in context. Because of the amount of possible examples, only two cases – the most relevant ones - will be discussed: the emergence of one of the most 'recent' petrol roads, the *Via Maxus* (completed ca. 1995) and the new government housing facilities, built in the community of Tiwino.

7.2.2 Via Maxus

The first example of externally induced spatial change that will be presented is related to the construction of the most recent petrol road, the via Maxus, which is located in the east most part of the Waorani Ethnic Reserve. Oil exploration in this area lead to a continuous influx of petrol workers which created a direct connection between outsiders and Waorani hunters. In the article by Suárez *et al.* (2009) the emergence of the wild meat market of Pompeya is explained and analysed. Suárez *et al.* (*Ibid.*) do not fail to notice that a number of settlements, in relative close proximity of the road emerged, almost *ad hoc,* to better engage in the trade, which indicates that a degree of mobility for Waorani settlements still exists. This researcher, in an effort to uncover an insider perspective, engaged AMWAE's women on the matter. An NGO staff member explained that to her knowledge the Waorani hunters in the area engaged in the wildlife trade for profits which they could later exchange for primary goods. The reason for which the scale of wildlife extraction grew exponentially, eventually threatening the availability of future resources, was due to the acquisition of rifles by the Waorani hunters. The latter had the effect of a multiplying factor on the rate of extraction, which undermined the natural resource stock. When asked about the current state of things, another staff member claimed that at present there is an agreement with the Waorani who inhabit the communities of the cocoa intervention. The agreement specifies that one animal may be extracted per month by each hunter, and that extraction should occur for the sake of personal subsistence and not trade. The agreement is informal of course and there appears to be no control over its enforcement, other than reciprocal trust. All staff members interviewed reported that the Pompeya wild meat market had been shut down in the past year but this research cannot offer any proof of it. Whether this lead to the relocation or abandonment of the nearby settlements could not be determined either. Finally it should be added that this was, at least on paper, one of the main objectives of the first designers of the intervention: the goal was to reduce uncontrolled wildlife extraction and limit poaching, hence closing the main market ought to have significantly slowed down the trade. How much the effects of the latter can be said to have contributed to this result is also impossible to say. From observation this researcher can state that just outside the community of Tiwino, in the area of the Via Auca entry, a Waorani hunter was observed in his own home. He was cleaning a rifle when this researcher and the women of the NGO walked past his house to salute him. He had recently used it to shoot and kill a monkey (most likely a *Cebus capucinus*). In the back of his home, protected from rain and the elements, the same hunter was drying a Jaguar's pelt (*Panthera onca*), which, judging by the state of decomposition of the remaining derma of the

animal (and the amount of insects the exposed meat attracted), could not have been older than a week. Whether this should have been regarded as a breach of the extraction agreement is not clear but none of the women of AMWAE who were present made mention of this, and actually seemed rather fascinated by the pelt and the taste of the monkey, which is considered a true delicacy.

7.2.3 Interpretation

The previous paragraph had the purpose of introducing an example of spatial change caused, albeit unwillingly, by the presence of oil companies in Waorani territory. In this case the change caused the emergence of new settlements and lead to trade which resulted in uncontrolled wildlife extraction. The latter also reportedly lead to spatial change as Waorani hunters, now facing unprecedented scarcity of resources, were forced to dwell deeper into the jungle to be able to hunt. Presently, even though hunting should have been significantly curbed, the practice still remains an important source of subsistence for Waorani households. The observed hunter did not deny making a good profit from selling parts of the Jaguar and neither of AMWAE's staff members objected to it. It is therefore plausible to assume that demand for certain wildlife products still exists, albeit it no longer occurs in a specific location, such as the infamous Pompeya market.

7.2.4 Government housing

A second example of externally induced spatial change has been taking place in the past few years and has been observed directly by this researcher in the community of Tiwino, in the area of the Via Auca entry point. Here, during an entry arranged by AMWAE to collect artisanal handcrafts from the women of the community, AMWAE's second most remunerative activity, an encounter with a government official working for the ministry of agriculture took place. His purpose, he claimed, was that of conducting a preliminary study for a census of Waorani population. This was a difficult task according to him because of the high mobility of the Waorani people, but was gradually becoming possible in this area because of a government intervention: in the community of Tiwino the government has built housing facilities for the inhabitants under the *Ecuador Estratégico*[3] framework, a public enterprise with legal authority and own budget. The properties, one for each Waorani household, have been built adjacent to the previous housing arrangement (which has, in almost all cases been preserved and remains today in use), thus being respectful of the

[3] Ecuador Estratégico es una empresa pública con personalidad jurídica y patrimonio propio, dotada de autonomía presupuestaria, financiera, económica, administrativa y de gestión cuyo objeto de creación.

observed Waorani fashion of composing scattered settlements so that one household is well isolated and independent from the next. They are directly entitled to the owner and appear to be a state of the art build, based on a single template, making them *de facto,* indistinguishable from one another. What the return outcome of this effort should be for the government is subject of speculation. This researcher can only state what the government official claimed on the field, namely that it makes his job much easier when it comes to investigate where people live.

7.2.5 Interpretation

As shown in this second example, externally induced changes are affecting the Waorani in their communities. Different government programmes aimed at 'improving lives in the communities' exist and their extended effects will become visible only in the future. Speculation on what entitlement to government built houses means to the Waorani would be out of place. Literature exists however on the effects of what Swing *et al.* (2012) refers to as the "acculturation process". One of the examples provided concerns the aforementioned government houses: "Promised 'modern' amenities either never materialize, or are doubleedged 'advantages'. For example, 'modern' housing built for the Waorani, made of wood, or of blocks (often of inferior quality) requires being sedentary, and is also less compatible with the heat and humidity of equatorial rainforest. Furthermore, the newness of this architecture means that the people have little capacity for repairing their abodes themselves" (Swing *et al.*, 2012). The previous contribution supports the theory that government built houses will decrease the rate of mobility of the Waorani; also because, in order to be entitled to a living unit, one must be a resident of that community. One of the NGO staff members who was present in Tiwino, lost this opportunity (despite still having living relatives there) by having chosen employment with AMWAE (or so she claimed) and subsequently having moved out of the Waorani Ethnic Reserve. The previous quote also suggests that the new housing facilities will increase dependency on external actors for their maintenance – another form of spatial change – which seems very plausible if one considers that traditional Waorani houses, made out of wood and other natural materials, were simply burnt to the ground before relocating to a new house in a different site. A last consideration to conclude should be made: while this chapter may focus on spatial changes as they are perceived by the Waorani, one should consider that other agents, namely government institutions, are also interested in understanding, formulating and eventually managing these changes. The observed government official did not deny this, "nothing comes for free" he

concluded. Therefore it may be plausible that there are interests concealed behind such development plans, or , as Swing *et al.* (2012) would put it: "they [the Waorani] are now expected to live on or near roads so that governmental officials may be able to interact with them on a regular basis."

7.3 Changes caused by Cocoa

7.3.1 Introduction

After having provided cases of externally induced spatial changes, it is now time to focus on the core of the matter. The following vignettes, or experiences, shall shed some insights on how cocoa may be perceived as spatial change for AMWAE and, by extension, the Waorani. Up to this point the concepts of space and place have been used somewhat interchangeably. While this will not change in the rest of the chapter, the meaning of these shall become broader: so far place and space have been used referring to their literal sense, i.e. physical position in a tangible world. Henceforth the use of a broader meaning shall be allowed: place will no longer be exclusively physical, but also social. The entitlement of a newly built property, for example, may affect the owners physical space by linking him or her to a place. The very same may also affect his or her position in the social world by placing him above those who have not been assigned to one.

7.3.2 About plantations and property

The cocoa intervention has been developed to reclaim previously deforested plots by linking them to existing communities. Cocoa trees are planted in plots of various sizes that allegedly served no purpose before. It has not been possible to investigate how these plots came into existence, whether they had been deforested for timber use or housing purposes is unknown to this researcher. Most of the plots that were visited which are part of the cocoa intervention were situated in and around the community of Gareno, in the west most part of the Waorani Ethnic Reserve. It has not been possible to take precise measurements of the plots although this researcher did inquire the expert opinion of the agronomist who was present during the capacity building workshops. The plots do not differ greatly in size and all contain between fifty and two hundred cocoa tree specimen. The plots are easily recognisable because of the evident difference in height between the cocoa tree species (which rarely grow taller than five meters and are usually pruned to be much smaller) and the natural occurring vegetation, which forms a distinctly taller canopy (mostly taller than ten meters). The plots were situated

in a ten to fifteen minutes walking distance from the centre of the nearby community and the boundaries of the plots were neither marked nor fenced off. In addition to this, the plots were not always situated in proximity of houses so that it has been impossible to determine who could be the owner of the plantation. Given the objectives of the intervention it should be assumed that these are public property. While hard evidence for the previous statement cannot be given, the impression of this researcher relies on the fact that the large group of participants that attended the workshops, collectively contributed to the practical tasks, with no distinction. Furthermore, during one of the theoretical 'lectures' given by the agronomist, emphasis was put on the importance of giving an equal contribution to labour, thus inviting members of the community to sanction free riders. Some plots may have been private property, judging by their proximity to a house. In one case, in the community of Bataboro, a large plot of two hectares was situated across a river, i.e. on the opposing riverbank from where the community is situated. This may have seemed like a privately owned plantation but in fact it was public and the whole community reportedly participated in its maintenance.

7.3.3 Interpretation

This researcher is well aware that the information mentioned above leaves more questions open than it answers. It would be interesting to know how and why large areas of land ended up being deforested, especially since thriving vegetation, typical of the Rainforest, usually tends to regenerate quite rapidly. Also, and perhaps most importantly, it would be necessary to know more about the property right status of the various plantations but unfortunately this information was never disclosed. What can be said however, is that the reforested plots, have been repurposed and that they will therefore be more frequently visited by the inhabitants of the communities, because, as discussed in a previous chapter, agricultural practices of cocoa can be demanding. The impact of cocoa on the spatial dynamics of the communities will not be limited to plantations being reconnected to the communities. In order to be successful the cocoa growing communities will be dependent on an influx of resources, both material and intellectual, from outside the Waorani Ethnic Reserve, such as agricultural inputs and external expert knowledge and assistance. In addition to this AMWAE's presence should also increase because it will be the organisations' task to collect and purchase the cocoa from the communities. In a way, it could be reasoned, the cocoa trade will bring the communities involved closer to the 'outside world'. Whether this will have a positive impact is impossible to say but it cannot be excluded that it will affect spatial dynamics.

7.3.4 Roads and Infrastructure

The next example should help to support the previous one by looking at the distance that separates the communities from the nearest cities, outside of the Waorani Ethnic Reserve. Access to the Waorani Ethnic Reserve has been made possible mostly because of oil exploration and extraction routes. These are, for the largest part, gravel and dirt roads whose quality and condition varies greatly from area to area; but also bridges over the many rivers and smaller waterways that define the geographical area of the Amazon Basin. Travelling to and from the communities is thus a time-consuming activity because vehicular transit is limited to vehicles that are capable of dealing with the rough terrain. Progressing to the outside of the jungle area, the gravel roads connect to the public road system of the country, which is comparably better. Concrete roads of varying sizes and highways form the better part of modern day Ecuador's infrastructure - and connect remote areas of the country in a capillary way. Urban centres are all well connected with each other by tourist buses, operated by numerous local, regional and national companies. As a result travelling to the nearest cities on the outskirts of the Amazon is easily manageable, whereas accessing the communities requires time and resources (such as a capable four-by-four vehicle). Depending on the entry point, the gravel roads leading into the jungle can be clogged by heavy traffic. Large trucks carrying oil extraction equipments, pipelines, or other materials must travel at a slow pace over the bumpy roads and the carriage is rarely large enough to accommodate oncoming traffic. Tankers transporting crude oil and tourist buses are subject to similar constraints. The latter, previously unmentioned, offer, in most cases, transport to and from the communities. This is not always the case though because in some areas the gravel roads are not public but oil company property, in which case they are sealed off by guarded check points.

7.3.5 Interpretation

The previous excursus should have helped the reader to understand how the communities may be considered 'remote'. Since remoteness should be regarded as a relative concept however, it should be explained that this researcher visited only communities that are relatively accessible and on the outskirts of the Waorani Ethnic Reserve. These are the communities that are involved in the cocoa intervention but they are by no means the only ones existing. The majority of communities are far deeper in the Amazon and some are cut off entirely from the road system and can only be reached by plane or boat, following miles of waterways. Changing and developing infrastructure is well out of the scope of the intervention but increased access may indeed have affected spatial dynamics, as has been

reasoned earlier. Control over access points by petrol companies is not a problem for the Waorani who are granted entry by right.

7.3.6 Distance and communication

The infrastructure is not the only spatial constraint however; sometimes a lack of communication between the communities and AMWAE's office also causes negative externalities. AMWAE, as this researcher has learnt in Gareno, is not the only actor interested in purchasing cocoa from the Waorani. There other actors operating in the area that are reportedly willing to purchase the cocoa at the conventional market price of approximately $0.80 per pound (equivalent to 0.81€ per 454 grams, or 1.78€ per kilo[*4]). Growers in the communities may thus resort to this option, although less economically fruitful, because of AMWAE's inability to collect timely and frequently enough. To solve this problems a number of measures have been taken, most notably, electing contact persons in the communities to communicate directly with AMWAE in Puyo to solicit their reaction. It should be noted that this case of asymmetric communication seems unjustified because all communities are fitted with HAM radios, which are constantly used to communicate with others in the territory.

7.3.7 Interpretation

The previous paragraph gives a clear example of a change caused by cocoa, namely the appointment of a new contact person in the communities. This individual will thus have a special position in regard to other Waorani who are participating in the cocoa intervention as she or he may be invested with different tasks and responsibilities. This means that her or his social place will have been improved by the cocoa, granting her or him a direct line to AMWAE's women in Puyo. While in the communities, this researcher observed the appointment of two inhabitants to positions of responsibility. The first was appointed with the task to communicate with Puyo on a regular basis to maintain a steady supply of agricultural inputs and inform the organisation about further developments on the production. This person was elected in unanimity by her fellow inhabitants and the only requirement for the position was that she was able to read, write and perform basic tasks on a personal computer. The second individual was also unanimously elected and was appointed to collect the cocoa from the communities around Gareno. This inhabitant was perhaps the most actively engaged with

[4] Dollar to Euro conversion rate applied on the 22nd of July 2015: $1.00 to 0.91€. Pound to kilo conversion rounded at the third position after the comma

the intervention and already a successful grower. His skills and knowledge about cocoa production and necessary agricultural practices made this individual a natural candidate.

7.4 Community Relations

7.4.1 Introduction

The previous paragraphs should have contributed to clarify how the cocoa intervention will change space relations in and around the communities, eventually reinforcing the link between the city in which AMWAE's office is located, and the various communities that are involved in the cocoa intervention. Furthermore the fact that the social place of certain community members might also be affected by cocoa, namely by assigning new roles of responsibility to key community members, should be noted. In this subchapter the objective will be to analyse the impact of cocoa on spatial dynamics between different communities. Additionally, since improved social positions have been mentioned, an example will be made of an individual who might be excluded from this possibility.

7.4.2 Remote communities

The cocoa intervention will require a more constant flow of goods and information between the communities and the city of Puyo, which will, at least theoretically decrease the distance between the two. But how will the cocoa intervention impact the relation the different communities have to each other? At present five out of 32 communities are, reportedly, involved in the cocoa intervention. All five communities are in the north most quadrants of the Waorani Ethnic Reserve because this is where the entry points are situated. It should be noted that in the first chapter (*4.2.3 Implementation*) seven out of 32 communities were reported to be part of the intervention. This researcher has noted that there seems to be some confusion as to whether the communities along the Maxus Road may still be considered part of the intervention. As has been previously mentioned, certain communities cannot be reached via land altogether. When confronted on the future of the intervention NGO staff members have not elaborated on the future expansion of the project. The only, albeit indirect, mention was given by the capacity building workshops, whose purpose was to increase the knowledge and capacity of the women of AMWAE, so that they may apply it and share it in other communities. Which communities; i.e. how they have been identified and by whom, this researcher cannot say. It would seem however, by what could be observed on the field,

that the position of the communities should be a determinant: The communities on the Maxus Road were involved in the cocoa intervention from the beginning because of their proximity to the Pompeya wild meat market, prior to its reported closure. This researcher participated in the debate concerning entry to this communities and was therefore able to glimpse into the difficulties that visiting these communities pose for the women of AMWAE: The via Maxus lies in the west most part of the Waorani Ethnic Reserve and is thus one of the remotest parts to reach via land. During a weekly planning occurring in AMWAE's office the entry to these communities was continuously postponed because of external reasons such as a reported infrastructural problem, namely a collapsed bridge. Another constraint was provided by AMWAE's lack of capacity in maintaining an own vehicle, which increased their dependence on external actors such as the Yasuní Park Authority. The future role of these communities in the intervention appears to be uncertain. Other communities, mentioned previously, are entirely unreachable by land. For this reason they have not initially been included in the cocoa intervention.

7.4.3 Interpretation

The relation between the communities may change because of the cocoa, as their position largely determines whether or not they may be involved in the cocoa intervention. While more communities that are in proximity of the entry points in the north may be involved, and thus be subjected to similar spatial changes discussed above, other communities will be excluded entirely. This may well be the future of the communities along the Maxus Road although this researcher lacks the data to provide evidence for this statement. The latter may be excluded because of their location and the resulting cost of transport, which would make the cocoa intervention in these areas economically unsustainable. To support this argument a similar case will be brought, one which this researcher has resorted to before: the artisanal handcrafts. AMWAE's second most successful trade relies on handcrafted items being produced by women of various communities. These elaborate products are collected by AMWAE and sold in the Waorani shop in Puyo or during various events around the country. The bulk of the revenues goes to the women while the rest is used to fund the Waorani shop. The shop manager explained to this researcher the difficulties that arise from having to collect goods in distant communities. Not only is the effort time consuming, but also distinctly expensive if not planned right (i.e. by which visiting an extensive number of communities is meant, provided they are all ready and prepared to deliver simultaneously, which is rarely the case). Even so, communities that must be reached by plane must be

excluded, because of the costs related to financing one. In short, the final value of the artisanal products, is not high enough to justify the cost of the entry, which, this researcher thinks, may be plausible for cocoa also.

7.4.4 Independent Grower

In the community of Tiwino the women of AMWAE were approached by a farmer who was growing cocoa independently, outside of the cocoa intervention. Even though the cocoa was not the purpose of the entry, the women and this researcher visited his property to inspect his plantation. This grower's plot, some two hectares in size according to him, was only partially planted with cocoa. Other plants such as plantain, coffee and pineapple were planted in mixed fashion around the plantation. Most importantly however, the farmer did not deny clearing the plot in order to make space for the plantation, thus engaging in active deforestation. In addition to that he appeared to be in the process of gaining even more space by felling additional trees in proximity of his property. Lastly, agricultural inputs found on his property, which he was using for his trees, were not organically certified.

7.4.5 Interpretation

The activity of this inhabitant of Tiwino reveals a number of interesting elements. Firstly that some Waorani are independently resorting to agriculture to make a living, which as the literature indicated is not customary. Secondly it shows that there is interest in the intervention and that more growers may be attracted by its design and above market prices. In this regard there are also problems however since the intervention claims to have its own mandate, which disqualifies certain behaviours, such as deforesting. This grower in particular also seems oriented in growing different crops, which are unrelated to AMWAE's interests. Furthermore the use of non organic inputs may cause problems as it would conflict with the quality standard that AMWAE is trying to achieve. As far as spatial changes are concerned it should appear clear that cocoa is not the only driver behind them. In fact it appears to be only a small factor contributing to a more widespread process. With that in mind, this observation should rather be used to highlight how cocoa contributes to new spatial dynamics, namely a case in which an outsider to the cocoa intervention would be seeking involvement in the latter; as well as the problems that she or he may encounter. In the case of this grower, conforming to AMWAE's mandate may almost be impossible, mainly because of the way in which a substantial area of land was won to establish a plantation: i.e. by deforestation. AMWAE's intervention and the final product that results from it, Wao Chocolate, have the obligation to respect the criteria that make it an attractive product. Sustainability and respect

of the environment are certainly the most evident ones, which may disqualify this individual from being able to be included in the intervention. The result of this may contribute to widen the gap between the communities, which was the topic in discussion in this subchapter. If only certain communities may be included, others may feel excluded. And while some of the exclusion appears to be happening inevitably because of economic reasons, other forms of exclusion may also exists, like failing to conform to the existing mandate of AMWAE's cocoa intervention. Summing up, it could be argued that the cocoa intervention might create a new sense of place, in which some communities become more remote than others, while before they were almost all equally scattered on the periphery of a distant urban centre.

7.5 Results

The dynamics of 'space' and 'place' in and around Waorani territory are changing and constantly evolving. The purpose of this chapter was to explore the possibility that cocoa may be perceived as such a driver of change as well by AMWAE and, by extension, the Waorani that are involved in the community intervention. Beginning with external drivers of change, their impacts and effects on Waorani communities were presented. This has been done to provide a context but also because some of these external changes – and their negative effects – have resulted in the cocoa intervention discussed in this thesis.

The concept of using previously deforested plots for the intervention is creating new 'places' and linking them to the communities. This repurposing may be attributed to the cocoa, as well as the increased communal effort required by communities to maintain them. Since this process is not seamless AMWAE's involvement will have to increase, thus enforcing the existing link between the communities and the organisation. Certain barriers, such as the physical distance and the poor infrastructure, will remain but efforts to improve communication are being made: the cocoa should have the effect to ensure a more reliable communication between AMWAE and the communities, via HAM radio. Since this possibility existed before, but for unknown reasons remained unexploited, the appointment of community members to new roles of responsibility should also be regarded as a change. In this case a change in the social place of these individuals, who become responsible of coordinating the efforts of their communities and the involvement of AMWAE. But not all changes caused by the cocoa intervention regard the NGO and the communities. The latter

may also experience a change in their relation to other communities: while the communities of the intervention may perceive their place as less remote, the ones that are excluded, for economic or other reasons, may feel even more so. Other communities, like the ones on the Maxus Road, whose current status in the intervention is unknown to this researcher, may eventually fail to be included, which could result in a return to old practices. Lastly and perhaps more interestingly it would seem that cocoa may be perceived as an opportunity to shape an existing trend: since it would appear that some Waorani are independently and spontaneously beginning to resort to agriculture as a mean of subsistence, the cocoa may guide this change by promoting sound agricultural practices. In conclusion cocoa may be related to place and space, on the basis of the changes that it is causing on the latter, not only for AMWAE but also for the Waorani in the communities of the intervention and perhaps even beyond.

Chapter Eight: Network

8.1 Introduction

A social network is a set of relations, links, or ties among social actors and in this brief chapter the possibility that 'networks' may be perceived as a possible domain from the perspective of AMWAE will be explored. Several observed and documented events will be presented, each followed by an interpretation. A concluding result chapter will make a final case to support this domain.

8.2 Connecting communities to Puyo

AMWAE's intervention is linking the communities of the intervention to their central office in Puyo. Such network already existed because of other activities carried out by the NGO, but is currently being reinforced by cocoa production. The communities of the intervention appear to be gradually increasing their connection to Puyo because of the increased flow of resources - both inputs and outputs. The appointment to new positions of responsibility of community members should help ensure that communication occurs regularly as well as timely.

8.2.1 Interpretation

AMWAE's office in Puyo already was a pivotal point for many Waorani travelling or working in and around the capital of the province of Pastaza. Because of the cocoa intervention however it may incrementally become the centre of the cocoa intervention from which inputs and knowledge are dispatched to the communities and in which the collected cocoa is followed from collection to processing and back in the form of 'Wao Chocolate'. Newly appointed community members, whose tasks, albeit different, all contribute to mediate communication between the communities and AMWAE's office, should report back frequently and act as an extension of the organisation on the field and ,since they have been promised compensation for their efforts, they are obliged to do so.

8.3 AMWAE's office

AMAWAE's central office, where this researcher spent significant amount of time, already plays an important role for the Waorani that live, work or travel to the capital city of the

Province of Pastaza. The staff members of the office operate a HAM radio that allows communication to all communities that have a similar device (almost all of them, according to the NGO's president). Waorani men and women come to the office to talk to the staff members and are allowed to use the HAM radio for personal communications during certain hours of the day. Similarly, a desktop computer is made available to visitors when it is not currently being used by a staff member. This researcher observed that all the Waorani that made use of it connected to one of the most popular social networks to communicate with friends and family. In certain cases, when the linguistic barrier could not be breached with this researcher, they asked to be connected via that social network platform, to look at pictures and other personal information.

8.3.1 Interpretation

As in the previous subchapter, AMWAE's office plays an important role for the Waorani in Puyo. In the previous chapter the link was provided by the transactions related to the cocoa intervention while in this subchapter the drive towards visiting the office is a different one. Staff members here are approached directly and there is always someone available in the office. Furthermore the office is equipped with communication technology that may be used (formally or informally) by Waorani visitors. As such the office connects to all the communities via HAM radio and to the whole world wide web, via computers and internet connection. The latter can be found in internet cafes around Puyo but these can be costly. Most Waorani men and women seem to have accounts on popular social networks which they use to connect to friends and family and share personal information. The latter is particularly interesting to this researcher as it allowed for some personal exchanges that may never have taken place without the simplicity of this medium.

8.4 UNDP Equator Prize

AMWAE was awarded the prestigious UNDP Equator Prize in 2014 which is awarded annually to "twenty-five local sustainable development solutions for people, nature and resilient communities"."Representatives of winning communities will be supported to participate in a series of events held in conjunction with the United Nations General Assembly, scheduled for September 2014 in New York" (Equator Initiative, 2014). The prestigious award has placed AMWAE in the spotlight and even brought one of its staff members to New York for the award ceremony. This international recognition has given a boost to AMWAE's popularity and increased the global outreach of this small NGO.

8.4.1 Interpretation

AMWAE is a relatively small NGO employing nine women in an office the size of a medium sized apartment. Their staff members are mostly indigenous women who were born and raised in the communities. When they received the award the president of the NGO, who today is technical supervisor for the cocoa, was invited to come to New York to receive the award in person. She described the visit as "an incredibly intense experience". Because of the UNDP Equator Prize, AMWAE received increased international attention which resulted in increased interest of external actors and development organisations.

8.5 AMWAE on national television

Shortly after this researcher's arrival to AMWAE's office in Puyo, the president and some of the staff members were invited by one of the country's national television channels for an interview. Reportedly they were asked about the prize, the intervention and their other activities.

8.5.1 Interpretation

An unknown Ecuadorian national television channel which broadcasts nationally interviewed AMWAE's president and staff members in March 2015. This researcher was not present at the moment of the interview but was reminded of it when the women were approached in the community of Tiwino by community inhabitants who had seen them on television and who now appeared to be more interested in the cocoa intervention.

8.6 Waorani in literature

The Waorani often appear in scholarly literature, as well as in periodicals, because of the popularity of the debate concerning the conservation efforts and value of the Yasuní National Park. Most papers and articles, albeit focusing on biodiversity or resource management, do not fail to mention the inhabitants of the country's most contested park.

8.6.1 Interpretation

Many articles and papers can be found about the YNP and its conservation value. These papers generally mention the Waorani and other inhabitants of the park, at least *en passant.* Many other papers are either focussed on a number of indigenous populations in the area or are entirely focused on the Waorani of Ecuador. As a result much information can be retrieved from literature although not all of it may be regarded as up to date. This may be regarded as extraordinary if one considers that they have a relatively small population,

ranging between three to four thousand individuals maximum (including the Tagaeri and Taromeane, living in voluntary isolation).

8.7 Results

The purpose of this chapter was to explore how cocoa can assume the deeper meaning of 'networking' from the perspective of AMWAE. Networks, or to be more precise, social networks are here intended as the "structure of relationships linking social actors" (Marsden, 2000 in Pescosolido, 2007). There is an existing debate on the history of the social networks and several theories aimed at explaining how these function but these may be out of context in this research, as interesting as they may be. For this chapter Pescosolido's (2007) excellent overview will provide all the necessary definitions that should allow this researcher to enrich his results. Social networks generally have three distinct characteristics: structure, content and function. The first refers to "the architectural aspect of **network** ties (e.g., size, density, or types of relationships)"(*Ibid.*), the second to "what flows across the **network** ties" (*Ibid.*) and the third to "emotional support, instrumental aid, appraisal, and monitoring" (Pearlin & Aneshensel, 1986 in Pescosolido, 2007).

It should be said that 'networking' was already one of the main functions of AMWAE's office before the cocoa intervention. The argument will hence be that the cocoa intervention may eventually reinforce the existing social network. As previously discussed the office in Puyo will be the centre between the communities – from which the cocoa is sourced and towards which the inputs are delivered – and the market – in which the final product ('Wao chocolate') will be demanded and supplied. This seems plausible because it could already be regarded as a central hub for different means of communication between the Waorani and because these, as a people, appear to be increasingly resorting to modern social networking tools. In addition to this, the drive towards establishing a network is strengthened, this time externally, from factors that have increased the organisations local and international visibility. The interview on national television has reached Waorani people even in remote communities, (whether directly or indirectly this researcher cannot say) which may result in an increased interest, not to mention a revamped faith, in the future of the intervention. International attention, gained by prizes and awards as well as by sustained academic interest

has already drawn scientists and researchers to Puyo, thus contributing to the expansion of the existing network. In conclusion it would appear that all three characteristics of social networks are being positively influenced by the cocoa intervention which should support the result that cocoa may assume the deeper meaning of ‘networking’ from the NGO’s point of view.

Chapter Nine: Conclusion

9.1 Introduction

In this final chapter conclusions will be drawn. First the research objectives will be revisited, followed by findings and resulting conclusions. Then the results from every domain chapter will be summarised in order to make a final analysis, followed by a concluding part, the synthesis, in which the results will be discussed and matched with the available literature.

The subchapter '*Recommendations'* will focus on recommendations for future research as well as suggestions on how to proceed from this research. Lastly a self reflection will be conducted on the results of this research, its limitation and potential for improvement.

9.2 Research Objectives: Summary of Findings and Resulting Conclusions

The overall aim of this qualitative research was to understand the deeper meaning of cocoa from the point of view of the *Asociación de Mujeres Waorani de la Amazonia Ecuatoriana* (AMWAE). Four individual research objectives were identified to reach the overall aim:

V. Investigate the state of the cocoa intervention.
VI. Determine how the cocoa intervention functions in practice.
VII. Identify the most relevant domains that can be attributed to cocoa.
VIII. Explore the deeper meaning of the single domains from the point of view of AMWAE.

The first two individual research objectives were tackled on the field when the case study was conducted. The results have been used, in the form of observations, recollections and narrative renditions to support the bulk of the research. The third objective was achieved by using software to conduct a thematic analysis that contributed to indentifying the main domains that could be related to cocoa. The fourth and final individual objective was pursued by addressing each selected domain in its own chapter.

I. The field research proved necessary to assess the state of the cocoa intervention. The latter had some ambitious goals integrated in its design but information regarding the

current stage were scarce at best. By travelling to AMWAE's office in Puyo first, and from there to some communities of the intervention, it was revealed that the cocoa plantations, created between three and four years prior, were now entering the productive stage. This stage is arguably one of the most crucial ones because capacity had to be built, both for AMWAE's staff members and for the inhabitants of the communities involved. Cocoa collection, one of AMWAE's main tasks, was already occurring but on a limited scale. A first productive cycle had already been completed: the cocoa collected and processed by a factory in Quito, to its final product 'Wao Chocolate'. The cardboard confection of the chocolate bars were being redesigned to comply with Ecuadorian Laws but the final product was already being sold in the Waorani store in Puyo and in stalls during public holidays. All these findings lead to the conclusion that the intervention is in an advanced stage.

II. Because of the collaboration with AMWAE this researcher was able to observe most of the steps in the process that are required to make this intervention operational. These range from planting seedlings and saplings to fermenting and drying the cocoa beans, as well as a number of other required agricultural practices. In addition to that the planning and working stages that regulated AMWAE's schedule and activities were observed, as well as the role of the staff members in the organisation in the collection and purchase of the cocoa. Furthermore the role of some external actors, such as the agronomist, were observed, which provided additional information on how the intervention functions. Lastly information regarding the retail of the finished, i.e. processed, product were collected. As a result this researcher was able to determine how the cocoa intervention functions in practice.

III. Participant observation and informal interviews provided a large amount of unsorted data which had to be processed. A thematic analysis conducted using software revealed two main domains ('agricultural practices' and 'place') on the account of their frequency and relevance. Other domains also emerged from this analysis but not all were relatable to cocoa so the most pertinent were picked. It should be noted that the title, which could not be changed at a later stage, includes two domains which initially should have featured in own chapters in this thesis ('women' and 'conservation'). These were excluded however because not sufficient data were found

to support an in depth analysis. Nevertheless they remain relevant and are recurrent themes throughout this thesis.

IV. Five domains were selected and each was explored individually to uncover their deeper meaning in relation to cocoa from the point of view of AMWAE. Each of the 'domain' chapters included its own results sub-chapter but a final overall evaluation will be conducted in the following sub-chapter.

9.3 Case Study: Description, Analysis and Synthesis

The *Asociación de Mujeres Waorani de la Amazonia Ecuatoriana* (AMWAE) was the subject of this case study. This small NGO and its staff members played an integral part in acquiring data to tackle the overall research aim, as did some aforementioned external actors.

9.3.1 Development

Development has been assessed as a possible domain of cocoa from the point of view of AMWAE. The intervention was introduced in this chapter and its design and implementation uncovered. Furthermore the development plans of the Province of Pastaza, identified as the most suitable competent decentralised political authority, were discussed to frame the intervention in a broader framework. Different typologies of development could be identified thanks to the literature (Bellù, 2011) and these were used to evaluate whether cocoa may indeed assume the deeper meaning of development for AMWAE. In the results it was argued that this domain may be associated to cocoa on the grounds that the latter, in the form of intervention, was tackling almost all the identified typologies. Caution with this conclusion should be observed however, since development, being a "multi-dimensional concept in nature" may "occur in different parts or ways, at different speed and driven by different forces" (Bellù, 2011). Therefore cocoa may indeed be associated with development, but at the same time only be part of a bigger change that is occurring beyond its influence.

9.3.2 Agricultural Practices

This chapter explored the possibility that cocoa may be perceived as agricultural practices from the point of view of AMWAE. Observed agricultural practices were rendered in detail and later interpreted to uncover the importance of this domain for AMWAE and the intervention. The results underlined the importance of the latter and the impeding necessity to

create knowledge both for the organisation as well as for the Waorani in the communities of the intervention. The exhaustive notions taught during the capacity building workshops, often resorting to simplified examples to explain various practices, suggest what the literature commonly states, namely that the Waorani's traditional involvement in agriculture is limited because: "The Waorani are believed to descend from a pre-stone age culture that has not experienced agriculture" (London, 2014). Contrasting evidence was also provided however since some community members displayed confidence with complex notions; and since instances of Waorani spontaneously seeking involvement in agriculture were observed. In conclusion it should be noted that the transition to agriculture as a mode of sustenance differs from the transition to commercial and market oriented agriculture. Either way, it has been concluded, cocoa agriculture practices may indeed be regarded as a deeper meaning of cocoa from the perspective of AMWAE and, by extension, the Waorani involved in the intervention.

9.3.3 Capital

Capital as a domain has been explored in its multiple forms (Bourdieu, 1986). Economic capital has been identified as the prevailing form but arguments for other forms (cultural, social, symbolic) were also made. AMWAE, being an NGO that is increasingly involved in the international development arena, appears to be becoming proficient in attracting and managing funds to fuel itself and her intervention. Furthermore, by gradually assuming control of the intervention, managing her own budget and the increased flow of transactions, may strengthen the link (both perceived and actual) between the cocoa and capital.

9.3.4 Place

The domain of place was assessed in its perceived relation to cocoa. Here place and space were distinguished in their physical but also in their social sense. Externally induced changes, caused by external actors were described as well as the changes that the cocoa intervention may be causing in the Waorani territory and the effects that the latter may have for AMWAE and the Waorani in the communities of the cocoa intervention. Possible effects on communities excluded from the intervention have also been mentioned. This analysis, ambitious in intent because of the conspicuous amount of determining factors that it involved (infrastructure, remoteness etc.) concluded that this domain may be regarded as a plausible perception of the overarching domain of cocoa. The intervention appears to be shaping both places and spaces, albeit being a single factor of a much broader dimension. The social component, although restricted by the scarcity of data, has been discussed and some of it may

be relatable to cocoa. The dynamics of place and space, being ever changing in nature, limit the conclusion to a potential contributor amongst many. Nevertheless the cocoa intervention could be described as an influence that is at least partially driven by AMWAE and her staff.

9.3.5 Network

This brief chapter explored the assumption that cocoa may be linked to networking from the point of view of the NGO. Instances of the cocoa intervention contributing to the creation of new networks, or the strengthening of existing ones were presented as well as brief insights in the Waorani's drive towards increased connectedness. National and international attention directed towards the intervention and towards the Waorani as a people all seem to support the association of cocoa to the domain of networking.

9.4 Recommendations

The Waorani are a relatively popular research subject and literature evidence of this abounds. This researcher noted however that much of the recent literature refers to outdated literature when it describes the Waorani people. Literature about present day Waorani is scarce and contributions may document interesting changes that are currently taking place. The increasing involvement in 'conventional' agriculture, a logical example, both for self sustenance and market oriented, could be fascinating to study in depth, not only because of its relevance but also because of its inevitable effects on the pristine environment of the Amazon.

9.5 Self-reflection

This researcher was immediately attracted to this research opportunity. The mythical Waorani of the Ecuadorian Amazon, described in literature as fierce warriors inhabiting remote parts of the Amazon, seemed to provide an extraordinary opportunity to practice this researcher's skills on the field as well as offering an experience beyond the conventional comfort zone. Even though a number of problems and potential pitfalls became apparent from the very beginning of the research process, first and foremost TRAFFIC's disengagement from collaborating with this researcher, the drive towards the road less travelled prevailed.

Like many students before him this researcher flirted with the idea of conducting a ground-breaking research. One step at a time reality caught up and so the first lesson this researcher learnt was one in modesty and humility, a fair lesson to be treasured. The initial discomfort was soon replaced by the will to find the real dimension of this research, in finding what could and what could not be done considering the limitations and the constraints that the case was inevitably subject to. A daunting task at times but eventually, with the guidance and support of his supervisors, a way could be found.

Patience and self reflection would be the best advice this researcher could recommend to other students. Research takes time and planning and very often these do not produce the desired results, no matter how well they are paced and structured. Eventually however, a solution can be found, even if it means reducing the scope of one's research. This will be the most important lesson that this researcher will have learned at the end of this experience.

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