The nadies waving resistance: Oil palm and sugarcane conflicts in the territory,communities and households of the Q'epchil', PolochicValley, Guatemala

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Tesis doctoral

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A Olaya, juntas siempre

Al Poncho, luciérnaga que me sigue iluminando

Prefacio

El título de esta tesis está inspirado en el poema "*Los Nadies*" de Eduardo Galeano escrito en 1940. Los nadies, como sujetos sin voz que en silencio van tejiendo resistencias.

Los Nadies (Eduardo Galeano 1940)

Sueñan las pulgas con comprarse un perro
y sueñan los nadies con salir de pobres,
que algún mágico día
llueva de pronto la buena suerte,
que llueva a cántaros la buena suerte;
pero la buena suerte no llueve ayer, ni hoy,
ni mañana, ni nunca,
ni en lloviznita cae del cielo la buena suerte,
por mucho que los nadies la llamen
y aunque les pique la mano izquierda,
o se levanten con el pie derecho,
o empiecen el año cambiando de escoba

Los nadies: los hijos de nadie,
los dueños de nada.
Los nadies: los ningunos, los ninguneados,
corriendo la liebre, muriendo la vida, jodidos,
rejodidos:

Que no son, aunque sean.
Que no hablan idiomas, sino dialectos.
Que no profesan religiones,
sino supersticiones.
Que no hacen arte, sino artesanía.
Que no practican cultura, sino folklore.
Que no son seres humanos,
sino recursos humanos.
Que no tienen cara, sino brazos.
Que no tienen nombre, sino número.
Que no figuran en la historia universal,
sino en la crónica roja de la prensa local.
Los nadies,
que cuestan menos
que la bala que los mata.

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Acrónimos

AAPG Associació d'Amistat amb el Poble de Guatemala

ACCD: Agencia Catalana de Cooperació al Desemvolupament

BRIC: Big income countries

CONGCOOP: Coordinadora de ONGs y Cooperativas de Guatemala

CUC: Comité de Unidad Campesino

ECAs: Escuelas campesinas

EdPAC: Educació per la Acció Critica

EGP: Ejercito Guerrillero de los Pobres

FAO: Organización de Naciones Unidas para la Alimentación y la Agricultura

FAS: Fundació Autònoma Solidària

FGT: Fundación Guillermo Toriello

FIAN: Internacional Food First Information and Action Network

FONTIERRAS: Fondo de Tierras

GIDHS: Grupo de Investigación en Derechos Humanos y Sostenibilidad

GLAMUR: Global and Local food chain Assessment: MUltidimensional performance-based approach

HCA: Hierarchical Cluster Analysis

IAP: Investigación Acción Participativa

ICTA: Institut de Ciència i Tecnologia Ambientals

IDEAR: Instituto de Estudios Agrarios y Rurales

ILC: International Land Cualition

IACHR: Inter-American Commission on Human Rights

INE: Instituto Nacional de Estadística de Guatemala

IRMH: Grup de suport a la Iniciativa de Recuperación de la Memoria Histórica

MA: Millennium Ecosystem Assessment

MICs: middle income countries

MDGs: Millennium Development Goals

MST: Movimento dos Trabalhadores Rurais Sem Terra

MuSIASEM: Multi-Scale Integrated Assessment of Societal and Ecosystem Metabolism

NNUU: Naciones Unidas

ODG: Observatori del Deute en la Globalització

ONGs: Organizaciones No Gubernamentales

PCA: Principal Component Analysis

PNDRI: Política Nacional de Desarrollo Rural

PRONACOM: Programa Nacional de Competitividad

RSPO: Roundtable on Sustainable Palm Oil

SAA: Secretaría de Asuntos Agrarios

TNI: Transational Institute

UAB: Universitat Autònoma de Barcelona

UAM: Universidad Autónoma de Madrid

UDEFEGUA: Unidad de Protección de los Defensores y Defensoras de Guatemala

USDA: U.S. Department of Agriculture

WWF: World Wildlife Fund for Nature

Abstract

Over the last two decades, the oil palm and sugarcane plantations have been expanding rapidly in Asia, Africa and Latin America as exports and/or as processed agro-fuels, food products and industrial products. Companies as well as state and international institutions support and promote their cultivation as a way of solving the multiple food, energy, climate, and financial crises. In contrast, non-governmental organizations (NGOs) and local collectives (including those from towns and villages without land, indigenous communities or temporary workers) oppose these processes of land grabbing by mobilizing themselves and creating forms of resistance for the sake of agrarian and environmental justice.

This thesis contributes to the study of these agrarian extractive dynamics through the case study of the Polochic Valley, Guatemala, where there are currently disputes over the fertile lands of this region involving the oil palm and sugarcane plantations owned by national elites and the sowing of basic grains for the Maya-Q'eqchi' people.

From the methodological framework of participatory action research, applying an interdisciplinary and multiscalar approach, the following questions are raised: What are the implications of agrarian extractivism of oil palm and sugarcane plantations? Is there any mobilization and resistance against these extractive activities? And if so, who and how do people resist or mobilize? To answer these questions, four objectives are addressed: 1) understand the environmental and agrarian conflicts caused by the expansion of oil palm and sugarcane industries over sixteen years (1998-2014); 2) analyze how and why the Maya-Q'eqch' commons can be contemporary forms of resistance to land grabbing; 3) examine the implications of the combined effect of work in the palm oil plantations and the access to land in the wellbeing of the Maya-Q'eqchi' households; and (4) reflect on the construction of indicators for the analysis of poverty in rural households. Data were collected in three different field phases over a period of seven years (2009-2011; January 2012 and August 2014) and by applying qualitative and quantitative methods.

The principle results show a differential impact of the oil palm and sugarcane plantations according to the spatial scale of the analysis. At the territorial scale of the Polochic Valley, the expansion of the oil palm and sugarcane industries exacerbates the historical disputes over land between the indigenous communities and business elites, and thus generates new agricultural and environmental conflicts. The visibility of these conflicts at national and international levels has been conditioned by violence exercised by government and national elites, the role of the state in mediating to "resolve" conflicts, nature, the forms of mobilization and the types of alliances between international, national and local NGOs. It is at the daily community level that the indigenous people of the Polochic Valley develop their main forms of resistance. Specifically, the agrarian commons located in more isolated areas, which have maintained considerable autonomy and social cohesion, have preserved traditional institutions and developed new mechanisms to counteract the effects of the current dynamics of land grabbing. At the household level, work in oil palm plantations has increased household incomes at the expense of the other dimensions of human well-being, such as food security, freedom of choice, and social relations, especially concerning women.

From a methodological point of view, to construct indicators for analyzing and measuring poverty at the household level, it is necessary to determine the narratives that

define poverty. In Guatemala, national policies aimed at reducing rural poverty define poverty differently: on the one hand, the "*Programa Nacional de la Competitividad* (PRONACOM) proposes reducing residual poverty caused by the lack of monetary flows; and on the other, the Policy of Rural Development (PDRI), structural poverty (lack of funds, such as land or structures) enable regeneration of these monetary flows. According to this, two types of interpretations are possible depending on the chosen narrative: 1) that the promotion of salaried work at palm plantations decreases (residual) the poverty of households by increasing the monetary flows; or (2) that the access to land for indigenous communities and productive community structures reduce (structural) poverty, so as to have access to funds that enable the regeneration of monetary flows (income) and materials (food) over time.

Altogether, the results provide empirical, theoretical and methodological reflections on current agrarian extractive dynamics generated by monocultures with multiple and flexible uses. The thesis analyzes these processes in depth with a case study conducted in a region that has previously not been studied extensively and has experienced high unrest, whereby showing on the one hand, that the industrial expansion of these crops provide continuity to an extractive economic model that generates violent conflict are not always visible and denounced, while at the same time accelerating the loss of traditional institutions and processes of social differentiation. On the other hand, there are various forms of resistance and mobilization against these monocultures at multiple scales. Rural NGOs (forming part of the transnational agrarian movement) as well as NGOs focused on development, human rights and research are mobilized at national and transnational levels by means of campaigns and protests against the violation of human rights, agrofuels and land grabbing; and at the regional level, communities resist and mobilize themselves by occupying lands and reproducing their own agrarian commons for the sake of agrarian and environmental justices.

The thesis develops the concept of agrarian commons beginning with the intersection of different theoretical frameworks and the analytical framework of rural systems from a complex and multidimensional approach based on indicators and household typologies. All these enhance the current debates on agrarian extractivisim and environmental conflict among academic forums of political ecology and agricultural studies, of activists, defenders of the territory and decision makers.

Key words: agrarian extractivism, land grabbing, environmental and agrarian conflicts, environmental and agrarian justice, complex rural systems.

Resumen

Desde las dos últimas décadas, los cultivos de palma aceitera y de caña de azúcar se han ido expandiendo aceleradamente en Asia, África y Latino América para ser exportados como agrocombustibles, productos alimenticios o productos industriales. Empresas e instituciones estatales e internacionales financian y promueven su cultivo como solución a las múltiples crisis alimentarias, energéticas, climáticas y financieras. Contrariamente, organizaciones no gubernamentales (ONGs) y colectivos locales (entre ellos, población sin tierra, comunidades indígenas o trabajadores temporales) se oponen a estos procesos de acaparamiento de tierras a través de movilizaciones y formas de resistencia a favor de la justicia agraria y ambiental. La presente tesis doctoral contribuye al estudio de estas dinámicas agrarias extractivas, a través de un caso de estudio en el Valle del Polochic, Guatemala, donde actualmente las tierras fértiles del Valle están siendo disputadas por las plantaciones de palma aceitera y caña de azúcar propiedad de élites empresariales y por la siembra de granos básicos por la población Maya-Q'eqchi'.

Desde el marco metodológico de la Investigación Acción Participativa, aplicando una aproximación interdisciplinar y multiscalar, esta investigación plantea las siguientes preguntas de investigación: ¿Qué implicaciones tiene el extractivismo agrario de las plantaciones de palma aceitera y caña de azúcar? ¿Existe movilización y resistencia en contra de estas actividades extractivas? Y si es así, ¿quién y cómo resisten y se movilizan? Para responder a estas preguntas se abordan cuatro objetivos: 1) entender los conflictos ambientales y agrarios generados por la expansión de la palma aceitera y la caña de azúcar a lo largo de dieciséis años (1998-2014); 2) analizar cómo y porqué los comunes Maya-Q'eqchi pueden ser formas de resistencia contemporáneas ante el acaparamiento de tierras; 3) examinar las implicaciones en el bienestar de los hogares Maya-Q'eqchi' del efecto combinado del trabajo en las plantaciones de palma aceitera y el acceso a tierra; y 4) reflexionar sobre la construcción de indicadores para el análisis de la pobreza en los hogares rurales. Los datos fueron recogidos en tres fases de campo diferentes a lo largo de siete años (2009-2011; Enero 2012, y Agosto 2014), a través de metodologías cualitativas y cuantitativas.

Los principales resultados muestran un impacto diferencial de la palma aceitera y la caña de azúcar según la escala espacial de análisis. A escala territorial del Valle del Polochic, la expansión de la palma aceitera y la caña de azúcar exacerba las disputas históricas de tierra entre comunidades indígenas y las élites empresariales y genera nuevos conflictos agrarios y ambientales. La visibilidad de estos conflictos a escala nacional e internacional ha sido condicionada por la violencia ejercida por el gobierno y las élites empresariales, el rol del Estado en mediar para "resolver" los conflictos y la naturaleza, las formas de movilización y los tipos de alianzas entre ONGs internacionales, nacionales y locales. Es a escala comunitaria y de forma cotidiana, la población indígena del Polochic desarrolla su principales formas de resistencia. Específicamente, los comunes agrarios situados en áreas más aisladas (que han mantenido cierta autonomía y cohesión social) son los que han preservado instituciones tradicionales y desarrollado nuevos mecanismos para contrarrestar los efectos de las actuales dinámicas de acaparamiento de tierras. A escala de hogar, el trabajo en las plantaciones de palma aceitera ha incrementado los ingresos en los hogares en detrimento de otras dimensiones del bienestar humano, tales como la seguridad alimentaria, la libertad de elección, y las relaciones sociales, especialmente de las mujeres.

Desde un punto de vista metodológico, para construir indicadores que analicen y midan la pobreza a nivel de hogar, es necesario determinar las narrativas que definen la pobreza. En Guatemala, las políticas nacionales destinadas a reducir la pobreza rural definen pobreza de manera diferente; por un lado el Programa de Competitividad propone reducir la pobreza residual (provocada por la falta de flujos monetarios) y la Política de Desarrollo Rural, la pobreza estructural (falta de fondos como tierra o estructuras) que permitan reproducir los flujos. De acuerdo a esto, dos tipos de interpretaciones son posibles en función de la narrativa elegida: 1) que la promoción de trabajo asalariado en las plantaciones de palma disminuye la pobreza (residual) de los hogares, al aumentar los flujos monetarios; o 2) que el acceso a tierra a favor de comunidades indígenas y estructuras productivas comunitarias reducen la pobreza estructural al tener acceso a los fondos que permiten producir flujos monetarios (ingresos) y materiales (alimento) a lo largo del tiempo.

El conjunto de estos resultados aporta reflexiones empíricas, teóricas y metodológicas sobre las actuales dinámicas extractivas agrarias generadas por monocultivos con múltiples y flexibles usos. La tesis analiza estos procesos con un caso en profundidad en una región poco estudiada y de alta conflictividad, demostrando por un lado que la expansión de estos cultivos dan continuidad a un modelo económico extractivo que genera conflictos violentos no siempre visibles y denunciados, y acelera la pérdida de instituciones tradicionales comunitarias y procesos de diferenciación social. Por otro lado que existen distintas formas de resistencias y movilización en contra de estos monocultivos a múltiples escalas. ONGs campesinas (forma parte del movimiento agrario transnacional), de desarrollo, de derechos humanos e investigación se movilizan a escala nacional y transnacional a través de campañas y reclamos en contra de la violación de derechos humanos, los agrocombustibles y el acaparamiento de tierras; y a escala regional las comunidades resisten y se movilizan a través de ocupaciones de tierras y reproduciendo sus comunes agrarios a favor de la justicia ambiental y agraria.

La tesis, desarrolla el concepto de comunes agrarios a partir de la intersección de distintos marcos teóricos y amplia el marco analítico de los sistemas rurales desde una aproximación compleja y multidimensional a partir de indicadores y tipologías de hogar. Todo ello enriquece los actuales debates sobre extractivismo y conflictividad agraria y ambiental en foros académicos de ecología política y estudios agrarios, de activistas, defensores del territorio y de tomadores de decisiones.

Palabras clave: extractivismo agrario, acaparamiento de tierras, conflictos ambientales y agrarios, movimiento de justicia ambiental y agraria, sistemas rurales complejos.

Publicaciones

Los resultados presentados en la memoria de la presente Tesis Doctoral lo conforman cuatro capítulos que hacen referencia a los siguientes artículos:

- **Mingorría, S.** 2016. Violence, Visibility and NGOs: Unraveling oil palm and sugarcane conflicts in the Polochic Valley, Guatemala. *Journal of Peasant Studies (under the second revision).*

  Y su versión reducida en castellano

- **Mingorría S.** *2016,* Violencia, Silencio, Miedo: El desvelo del conflicto de palma aceitera y caña de azúcar en el Valle del Polochic, Guatemala. Revista de Ecología Política. 51. Icaria Editorial. Barcelona.

- **Mingorría, S**., Iniesta-Arandia, I., Ravera , F., Martín-López, B. The Everyday Politics of Commons: Different reactions of Maya-Q'eqchi' communities to flex-crops expansion in Guatemala. *Submitted Journal of Agrarian Change*

- **Mingorría, S**., Gamboa, G., Martín-López, B., Corbera, E. 2014. The oil palm boom: socio-economic implications for Q'eqchi'households in the Polochic valley, Guatemala. *Environment, development and sustainability*, *16*(4), 841-871.

  Que forma parte del *Special Issue:*

  Ravera, F., Scheidel, A., Dell'Angelo, J., Gamboa, G., Serrano, T., **Mingorría, S**., Cabello, V., Arizpe, N., Ariza, P. 2014. Pathways of rural change: an integrated assessment of metabolic patterns in emerging ruralities. *Environment, development and sustainability*, *16*(4), 811-820.

- **Mingorría, S**., Gamboa, G., Scheidel, A. Rural population below the poverty line: discourse with structural consequences for Q'eqchi' communities, Guatemala. *Manuscrit*

1. Introducción

Los cultivos denominados flexibles, donde se incluyen la soja, palma aceitera y la caña de azúcar, son los monocultivos que más rápido se han expandido en las dos últimas décadas (FAO 2014). Especialmente notorio ha sido la acelerada expansión de la palma aceitera en Asia desde 1998 y la palma aceitera y la caña de azúcar en la región Latino Americana desde mediados del 2000 (USDA 2013, FAO 2014). Actualmente, los principales productores de palma aceitera son Indonesia y Malasia; y de caña de azúcar Brasil e India (FAO 2014). Según el Banco Mundial la región Latino Americana se encuentra dentro de las regiones considerados "marginales" (con poca población) y de "máximo rendimiento potencial" para la siembra de grandes extensiones de estos cultivos de exportación (Deininger et al 2011), por lo que le hacen un territorio objetivo. De 2005 a 2013 en esta región, la producción de caña de azúcar ha aumentado un 200 % y el aceite de palma aceitera un 500 % (FAO 2014).

El boom de la expansión de estos cultivos coincidió, con el aumento en la demanda de agrocombustibles de la UE y EE.UU para cumplir sus compromiso de reducir los gases de efecto invernadero (Sayer et al 2012) y la continuada subida de precios del aceite de palma y el azúcar de caña desde 1998 a 2009 (FAO 2009). Actualmente, la expansión continúa siendo acelerada a pesar de la bajada de los precios. Según (Borras et al 2016) son cuatro los postibles factores incentivan que compradores y vendedores tengan mayores aprovechamientos económicos y reduzcan las incertidumbres del mercado para su continuo crecimiento y expansión.

1) El carácter flexible y multifuncional (Borras et al 2012:851). La palma y la caña de azúcar pueden ser destinados a alimentación, como combustibles o productos industriales y además sus usos son fácilmente intercambiables (Alonso-Fradejas et al 2015, Mckay et al 2015, Oliveira y Schneider 2014). El uso al cuál es destinada la materia prima y qué cultivo flexible es utilizado puede ir en función de a) cambios en los precios de mercado, b) cambios de políticas favorables para un uso u otro o c) por nuevas inversiones en tecnología que permitan aumentar los usos o hacerlos más fácilmente intercambiables.

2) La alta producción y demanda de los países del Hemisferio Norte, pero también por el surgimiento de los países que representan los centros emergentes de capital internacional, es decir, los países del hemisferio sur, llamados BRICs (Brasil, Rusia, China, India, y el sur de África) y algunos países de ingresos medios o MICs (principalmente Indonesia, Tailandia, Camboya, Colombia y Nigeria) (Borras et al 2016); tanto los BRICs como los MICs se han convertido también en mega-hubs del propio mercado de estos cultivos (Alonso-Fradejas et al 2016).

3) Acciones de gobiernos, instituciones internacionales y grupos empresariales que buscan fortalecer y mejorar las condiciones para el mercado de estos cultivos. Los estados, están aprobando políticas sobre seguridad alimentaria y/o energéticas a favor de estos cultivos, están financiando investigaciones para la mejora de la tecnología que permita aumentar sus usos, están firmando acuerdos bilaterales e internacionales para facilitar la comercialización, están subsidiando parte de la producción para promover la integración del campesinado como trabajadores o pequeños productores; y empresas público-privadas junto con grandes transnacionales realizan acuerdos sobre inversiones, definen conjuntamente mercados objetivo y cooperan para mejorar la tecnología de la industria (Alonso-Fradejas et al 2015, Mckay et al 2015, Hunsberg y Alonso-Fradejas 2015);

4) Los discursos de gobiernos e instituciones internacionales que legitiman los múltiples usos y la flexibilidad de estos cultivos y los promocionan como un negocio socialmente y ecológicamente responsable con el que solucionar las actuales crisis alimentarias, climática y energética (Hunsberg y Alonso-Fradejas 2015). Por ejemplo, el informe del Banco Mundial sobre acaparamiento de tierras en 2011 (*Rising Global Interest in Farmland*) sostiene que las adquisiciones de tierra a gran escala para la siembra de estos cultivos pueden ser un vehículo para la reducción de la pobreza; ya que nuevos contratos campesinos sin que estos sean desposeídos de su tierra. Así mismo, los estudios de Hunsberger y Alonso-Fradejas (2016), muestran como en distintas conferencias de productores de palma se argumenta que "son necesarias 150 millones de toneladas más de aceite comestible para alimentar al mundo hasta el 2050" y que para ello es necesario sembrar más hectáreas, sobre todo de palma de aceite por su mayor eficiencia (menos tierra para producir más aceite). Élites empresariales e instituciones internacionales también dan argumentos a favor del clima al sostener que estos cultivos son "buenos" para el medio ambiente. La posible substitución de los combustibles fósiles por biocombustibles y la posibilidad de conseguir bonos de carbono a través de mecanismos de desarrollo limpio se plantean como caminos para reducir las emisiones de gases de efecto invernadero (UNEP 2011, Loh y Choo 2013,12). En algunos países como Brasil se pueden conseguir bonos de carbono por los ingenios de caña de azúcar que obtengan parte de su electricidad a partir de bagazo (lo que sobre del corte de caña) (Mckay y Schuer 2015); o en Colombia y Guatemala, las siembra de palma de aceite es considerado una replantación de árboles; por lo tanto también está sujeta a recibir bonos de carbono (Marin-Burgos 2014, Alonso-Fradejas 2011). Según (Alonso-Fradejas et al 2015) otros actores como algunas ONGs conservacionistas podrían estar favoreciendo también su expansión al realizar campañas a favor de la producción "sostenible" de la palma aceitera y no oponerse a su expansión. Por ejemplo, participando en mesas como la RSPO donde se regulan los criterios de producción de palma sostenible (ej. WWF) o realizado campañas sobre rankings de sostenibilidad a las principales empresas transnacionales dueñas de las industria de palma aceitera (ej Intemón Oxfam). Como resultado, el 80% de las empresas de palma producen bajo alguno de los certificados sostenibles y no han disminuido su producción (Borras et al 2013).

Contrariamente, de manera visible, organizaciones no gubernamentales (ONGs) y colectivos locales (entre ellos, población sin tierra, comunidades indígenas o trabajadores temporales) se oponen a la expansión a través de movilizaciones y formas de resistencia a favor de la justicia ambiental y agraria y los derechos humanos (Pye 2010, Borras et al 2015, Alonso-Fradejas 2015). Estos colectivos denuncian impactos negativos sobre el acceso a los recursos naturales, la contaminación y desvío de ríos, deforestación, pérdida de diversidad e indiseables formas de intregración laboral y la violación de derechos humanos.

Al mismo tiempo, otroas estrategias menos visibles, a través del cotidiano como resistir sin enfrentarse directamente a las élites de poder (empresas transnacionales, familias criollas). Ya que los mecanismos de entrada de estos monocultivos suelen ir acompañados de violencia (Alonso-Fradejas 2015, Grajales 2015).

Argumentan que cualquier economía basada en la extracción y exportación de materias primas casi sin procesar tiene impactos muy negativos sobre el medio ambiente y las economías locales (Gudynas 2012). Según los estudios de Borras et (2012) basándose en un informe de la FAO, muestra como están aumentando no sólo los procesos de acaparamiento y desposesión de tierras; sino que además; a través de estos cultivos se está controlando los principales recursos para la subsistencia de muchas comunidades locales, agua, tierra, bosques. Los impactos dependen en muchas ocasiones del tipo de cultivo, la estructura agraria y el marco político (Hall et al 2012, McCarthy et al 2012).

Por lo que estudios reclaman incestigar los procesos de acaparamiento y sus dinámicas complejas en contextos específicos y preguntarnos ¿Cómo la expansión acelerada de estos cultivos está afectando los cambios de usos de la tierra, el agua y el control en el acceso y uso de estos recuros? ¿Cómo afecta también al campesinado, trabajadores temporales y pequeños productores y al medioamenite? ¿Cómo se articula a nivel nacional y regional las estrategias contra hegemónicas o reformistas?

Por lo que esta tesis es una contribución al debate de estas actividades agrarias extractivas contextualizada en la región del Valle del Polochic en Guatemala, donde la palma aceitera y la caña de azúcar se reparten la mayor parte de la tierra fértil del Valle.

Esta tesis contribuye al debate de la expansión de estos monocultivos cuatro aspectos:

1) un caso estudio en la región centroamericana, región menos estudiada

5) en el marco del debate del (neo) extractivismos, con un caso de extracivismo agrario en un país con gobiernos no progresista

2) una aproximación interdisciplinar para entender tanto las implicaciones socio-económicas, como las formas de movilización y estrategias de resistencia;

3) un análisis multiescalar de la dinámica en el marco de la investigación acción participativa, y

4) propuesta analítica y metodológica para el análisis de las implicaciones de estos procesos a escala de hogar desde diferentes narrativas.

6) A través del concepto de comunes agrarios como marco para analizar las actuales estrategias de resistencia de comunidades

1.1. Objetivo general

Desde el marco metodológico de la Investigación Acción Participativa, aplicando una aproximación interdisciplinar y multiscalar, esta investigación plantea las siguientes preguntas de investigación:

¿Qué implicaciones tiene el extractivismo agrario de las plantaciones de palma aceitera y caña de azúcar? ¿Existe movilización y resistencia en contra de estas actividades extractivas? Y si es así, ¿quién y cómo resisten y se movilizan?

Para responder a estas preguntas se abordan cuatro objetivos específicos que corresponden a los objetivos planteado en cuatro artículos académicos:

1.2. Objetivos específicos

1) Entender los conflictos ambientales y agrarios generados por la expansión de la palma aceitera y la caña de azúcar a lo largo de dieciséis años (1998-2014).

2) Analizar cómo y porqué los comunes Maya-Q'eqchi pueden ser formas de resistencia contemporáneas ante el acaparamiento de tierras.

3) Examinar las implicaciones en el bienestar de los hogares Maya-Q'eqchi' del efecto combinado del trabajo en las plantaciones de palma aceitera y el acceso a tierra.

4) Reflexionar sobre la construcción de indicadores para el análisis de la pobreza en los hogares rurales. Los datos fueron recogidos en tres fases de campo diferentes a lo largo de siete años (2009-2011; Enero 2012, y Agosto 2014), a través de metodologías cualitativas y cuantitativas.

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2. Marco Teórico

La presente tesis se apoya en el marco de la Ecología Política y Social para analizar los conflictos de las plantaciones de palma aceitera y caña de azúcar. A escala transnacional, nacional y territorial del Valle del Polochic y las comunidades Q'eqchi', me apoyo en la Ecología Política por su carácter interdisciplinar para analizar las relaciones de poder y las distintas formas de desposesión y de movilización social en relación a la expansión de los cultivos flexibles (Capítulos 4 y 5). A escala comunitaria, desarrollo el marco de los comunes agrarios a partir de la intersección del análisis institucional, el concepto de los comunes y las formas de resistencias campesinas (ver Capítulo 5 y 7). A escala de hogar, analizo las implicaciones socio-económicas de trabajar en las plantaciones de palma aceitera y la falta de acceso a tierra, basándome en la Ecología Social para el análisis socio-ecológico del efecto de la expansión de palma aceitera sobre el bienestar humano.

2.1. Ecología Política

La Ecología Política nace en los años 80 a partir de múltiples disciplinas como la ecología política, geografía crítica, la economía política, la antropología ecológica y la cultura ecológica (Robbins 2004) y emerge para dar respuesta a diferentes análisis "apolíticos" sobre cambios ambientales. Análisis previos pretendían dar una visión "neutra" de los desastres y daños ambientales sin tener en cuenta que la vulnerabilidad y/o la resiliencia de diferentes actores sociales puede estar afectada por las estructuras políticas y económicas (Watts y Peet 2004). La Ecología Política asume que las condiciones ecológicas y los cambios ambientales son el resultado de un proceso político, aceptando tres premisas: 1) que los costes y los beneficios asociados a los cambios ambientales son distribuidos desigualmente entre los actores; es decir unos ganan y otros pierden; 2) que estas desigualdades refuerzan o reducen las desigualdades previas; y 3) que, al mismo tiempo, estos cambios reconfiguran las relaciones de poder entre los actores (Bryant y Bailey 1997).

Según Robbins (2004) los estudios de Ecología Política se han centrado en investigar y problematizar cuatro narrativas de cambio ambiental y/o social: 1) la degradación y marginalización; 2) los conflictos ambientales; 3) las resistencias abiertas: la identidad ambiental y movimiento social; y 4) la conservación y control. Para esta tesis son cruciales las tres primeras narrativas.

2.1.1. Degradación y marginalización

Esta primera narrativa se basa en explicar que los procesos de *enclosure* (encarcelamiento) o acaparamiento incrementan la explotación de recursos, los daños ambientales y las desigualdades. Estos procesos se refieren a la privatización o la apropiación de recursos naturales (tierra, agua, bosques) tanto por élites sociales o empresariales y/o el estado. Originariamente, este concepto se ha referido a las privatizaciones de las tierras comunales en el siglo XIX en Inglaterra a favor de grandes propietarios. Para Marx, los procesos de *enclosure* y de desposesión fueron las características "primarias" del sistema capitalista. Estos procesos hacen referencia tanto a la mercantilización de los recursos como a la desposesión de las personas de sus medios productivos (Marx 1967). Actualmente, Harvey (2003) argumenta que estos procesos no han finalizado a pesar de estar ya inmersos en un sistema económico plenamente capitalista y globalizado, sino que son recurrentes. Por esta razón, Harvey denomina a los procesos de "acumulación primitiva" acuñados por Marx, procesos de "acumulación por desposesión". Esta denominación también se refiere a procesos de

privatización de los bienes comunales (ej., agua, bosques, tierra) o ampliando las fronteras del mercado (ej., el surgimiento de los organismos modificados genéticamente). Consecuentemente, estos procesos siempre van acompañados de la fragmentación o la destrucción de comunidades (De Angelis 2004) y reproducen o incrementan relaciones desiguales desde el género, la etnia y la clase (Federici 1992).

Como he mostrado en la introducción de esta tesis, la expansión acelerada de los cultivos flexibles a partir de los años 2000 está generando nuevos procesos de apropiación y acaparamiento. Éstos son denominados por académicos y movimientos sociales como procesos de *land grabbing* (acaparamiento de tierras) (GRAIN 2008, Zoombers 2010). Este concepto ha sido entendido como grandes adquisición de tierra por gobiernos extranjeros y que perjudica a la seguridad alimentaria del país (GRAIN 2008). Sin embargo, esta definición no define ni explica las actuales consecuencias y las formas de expansión de los cultivos flexibles en Guatemala. En Guatemala, el acaparamiento no concierne por ser sobre grandes superficies de tierra en comparación con otros países de África o Sudamérica, y tiene lugar mediante mecanismos de desposesión liderados por autoridades estatales y élites nacionales (Alonso-Fradejas 2012).

Para superar la limitada función analítica de la definición anterior de *land grabbing*, Borras et al. (2012, p 851) desarrollan una nueva definición de acaparamiento de tierras:

> "apropiación del control relativo de grandes extensiones de tierra y otros recursos naturales a través de una variedad de mecanismos que involucran inversiones de grandes cantidades de capital para extraer más cantidades de materiales que son destinadas tanto para consumo doméstico como para exportación".

Esta referencia complejiza la anterior, haciendo referencia a procesos de privatización y desposesión, pero también procesos de control territorial a través de la consolidación de formas de acceso y exclusión (Peluso y Lund 2011, p 668).

En esta tesis es central esta definición de acaparamiento de tierras y la "teoría de acceso" desarrollada por Ribot y Peluso (2003), donde el acceso hace referencia a la habilidad para beneficiarse de algo. Esa habilidad viene condicionada no sólo por el sistema de propiedad, sino también por normas sociales o instituciones tradicionales que limiten el acceso, manipulaciones discursivas, relaciones de producción o intercambio, y falta de otros medios como información o conocimiento, entre otros. En el capítulo 4 son visibles estas diferencias de acceso entre comunidades indígenas y élites empresariales. En el capitulo 5 se analizan diferentes instituciones comunitarias que median en el acceso y control de la tierra y cómo a su vez la acelerada degradación de algunas instituciones tradicionales son afectadas por procesos de cercamiento. Y en el capitulo 6 también se analizan las implicaciones de los procesos de desposesión por proletarización y diferenciación social (comparando de manera los hogares que trabajan y no trabajan en las plantaciones y tienen o no acceso a tierra).

2.1.2. Los conflictos ambientales

Esta segunda narrativa investiga la creciente escasez de recursos producida por los procesos de acaparamiento y apropiación por parte de las autoridades estatales, élites empresariales o empresas transnacionales que aceleran los conflictos entre grupos diferenciados por género, clase y/o etnia. Según Robbins (2004) la narrativa sobre conflictos ambientales parte de tres premisas: 1) que el acceso y el control sobre los

recursos naturales está distribuido de manera desigual en relación a la división del trabajo y el entramado de poderes; 2) que los sistemas de propiedad son políticamente parciales y han sido históricamente influenciados por dinámicas globales; y 3) que las políticas sobre desarrollo y conservación no han tenido en cuenta la pluralidad de sujetos en cuanto a género, cultura y clase social.

Desde un punto de vista material, las causas de estos conflictos ambientales (también denominados ecológicos distributivos) son el resultado del aumento de extracción de materiales (minerales o biomasa) y energía (Martínez-Alier y O'Connor 1996). La extracción de materiales y energía aumenta incluso si no hubiera crecimiento económico ya que la energía no es reciclable y los materiales solo pueden ser reciclados en parte (Martínez-Alier 2009). Para mantener constante o aumentar la oferta de materiales y energía demandadas por las actuales economías industriales, la frontera de las *commodities* (o frontera de la extracción) se sigue expandiendo (Moore 2000) y las fuentes denominadas "renovables" son sobreexplotadas (ej., la extracción de biomasa agota la fertilidad del suelo).

Esta expansión de la frontera extractiva afecta especialmente al acceso de recursos naturales por parte de la población local que depende de ellos para su sustento (Martínez-Alier 2002). Al mismo tiempo que los conflictos ambientales aumentan como resultado de los impactos sociales (incremento de la desigualdad) y ambientales (ej., pérdida de biodiversidad, deforestación, contaminación) en la fase de extracción y durante el transporte de materiales (ej., por la construcción de conductos, carreteras o la propia contaminación de la quema de combustible durante el desplazamiento). También pueden venir causados por los mecanismos y tecnologías utilizadas para su extracción o producción (ej., fumigaciones, organismos modificados genéticamente). Estos conflictos se manifiestan en la medida en que cada actor intenta acceder a los recursos e imponer un propio lenguaje de valoración (Martínez-Alier 2009). La Ecología Política se pregunta, en este sentido: ¿quién tiene el poder para interponer su lenguaje y/o tomar las decisiones?, ¿quién elige?, ¿cómo se decide? y ¿quién accede a los recursos? Los conflictos ambientales asimismo pueden coincidir con conflictos sociales relacionados con la clase, el género o la etnia (Martínez-Alier 2009, Peet y Watts 2004).

Estos conflictos pueden ser visibles o invisibles a escalas nacionales o internacionales, pero eso no quiere decir que la población u organizaciones no perciban daños o injusticias o que no se den desigualdades en el acceso a recursos o en sufrir los efectos. Por ejemplo, en los procesos de apropiación a través de la expansión de las plantaciones de palma aceitera y caña de azúcar, los principales conflictos identificados conciernen población local, autoridades estatales y élites empresariales (Hall et al 2015). En este sentido, esta tesis se centra en el análisis de conflictos generados por la expansión de la palma aceitera y caña de azúcar entre grupos de hogares Q'eqchi' y las élites nacionales de descendencia alemana dueñas de los monocultivos, así como las autoridades estatales que dificultan el acceso a tierra para la siembra de maíz y facilitan los mecanismos para la expansión de estas plantaciones.

2.1.3. Resistencias abiertas y encubiertas: la identidad y el movimiento social

Esta tercera narrativa argumenta que cambios en los regímenes de la gestión ambiental y las condiciones territoriales crean oportunidades para que grupos locales reclamen y se representen así mismos políticamente (en el sentido de elegir cómo gestionar los recursos naturales). Hollander y Einwohner (2004), en su revisión sobre formas de conceptualizar "resistencias", señalan que la mayoría de los estudios revisados conciben

las resistencias como "una variedad de acciones en oposición hacia algo"(p 533) y que se diferencian principalmente en si son reconocidas o no por otros. En el caso de ser reconocidas y visibles por otros, las denominan "abiertas" y en caso contrario "encubiertas" o invisibles.

Basándome en Martínez-Alier (2002) y Borras et al. (2013) clasifico tanto las formas de contestación y respuesta abiertas o encubiertas por parte de movimientos, organizaciones e individuos ante los conflictos ambientales en relación con distintas concepciones hombre-naturaleza y con interpretaciones sobre las causas del conflicto y los tipos de respuesta (reformistas o transformadoras). Las manifestaciones de esas diferencias pueden analizarse desde los discursos, acciones y estrategias que hay detrás de las formas de contestación (Walter y Martínez-Alier 2010).

La categoría de "Conservacionista-reformista" (también llamado "el culto a lo silvestre" (Martinez-Alier 2004) viene representada por movimientos, organizaciones y/o individuos conservacionistas que se centran en la preservación y en mantener intacta la naturaleza; así cómo recuperar las áreas degradadas desde la valorización de la naturaleza en sí misma y de lo estético. Las causas de los conflictos ambientales vienen determinadas por el mal uso de los recursos por parte de la población local, por lo que priorizan la protección del medio ambiente sobre cuestiones de justicia social. Dicha protección la promueven desde la creación y manejo de áreas protegidas que regulan estrictamente la gestión de los recursos y/o excluyen a los humanos de dicha gestión. Dentro de esta categoría, son consideradas organizaciones y movimientos conservacionistas transnacionales como WWF (Martínez-Alier et al 2014), que no tienden a cuestionar abiertamente el actual modelo de desarrollo basado en el crecimiento económico. Su crecimiento como movimiento se asocia a los "valores post-materialistas" en los países ricos en los años 70 (Gudha y Martínez-Alier 1997). Esta tesis de valores, postula que existe una relación positiva entre los ingresos y la preocupación e interés por el medio ambiente (Inglehart 1977). Desde su visión reformista, en muchos casos tienen un rol regulador para mitigar los efectos negativos de las actividades extractivas (Alonso-Fradejas et al 2015).

La categoría de "Evangelio de la eco-eficiencia-reformista" viene representada por movimientos, organizaciones e individuos que promueven el "desarrollo sostenible" y la "modernización ecológica" a través de medidas que pretenden reducir los impactos negativos del crecimiento económico y al mismo tiempo maximizar los beneficios y las oportunidades económicas de las industrias extractivas (Borras et al 2013). Suelen tener un rol importante como grupos de presión y promoción de criterios de Responsabilidad Social Corporativa o Principios Responsables de Inversión Agraria como forma de gobernanza para solucionar los conflictos (Alonso-Fradejas et al 2016). Son actores que postulan que las crisis ecológicas pueden ser resueltas mediante mejoras tecnológicas e inversión en el conocimiento científico (Borras y Franco 2012). Son representativas en este sentido las políticas del Banco Mundial y grupos empresariales que muestran compatible el desarrollo de actividades extractivas (como la expansión de los cultivos flexibles) en tierras que consideran "degradadas" o "vacías" (Banco Mundial 2010, Hunsberger y Alonso-Fradejas 2016). Argumentan que si la población pobre aumentara sus ingresos se disminuirían los impactos negativos en el medio ambiente como la deforestación.

Finalmente, la categoría de "Ambientalismo de los pobres-trasformador" hace referencia a grupos locales marginalizados que defienden el medio ambiente (en su

concepción más amplia) que les rodea por su fuerte dependencia de los recursos naturales para sobrevivir (Guha y Martínez-Alier 1997). A pesar de que esta población "marginal" no se considere ambientalista, académicos y activistas se refieren a ellos como parte del movimiento de justicia ambiental, pues defienden sus medios de vida y están en contra de los riesgos del crecimiento económico y las actividades extractivas (Martínez-Alier 2016).

A continuación, por su centralidad en la tesis, desarrollo en profundidad esta categoría. En los Capítulo 5 y 6 se parte de esta tesis para analizar las formas de movilización y argumentos de grupos de hogares indígenas sin tierra junto con ONGs internacionales, nacionales y regionales en el conflicto ambiental analizado desde 1998 al 2014 y las específicas formas de resistencia en cubierta de comunidades indígenas con y sin títulos de propiedad sobre la tierra.

El concepto de "ambientalismo de los pobres o popular" fue acuñado en los años 80 y fue utilizado para explicar los conflictos ambientales en Latino América, Asia y África, haciéndose conocido ante las muertes de Chico Medes en 1988 por defender los bosques y oponerse a la deforestación en Brasil y Ken Saro-Wiwa en el Delta del Níger en 1995 por luchar en contra de la extracción de petróleo y gas (Martínez-Alier 1997). Ya en los 90 el concepto se relacionó explícitamente con el Movimiento de Justicia Ambiental de los Estados Unidos ante conflictos ambientales relacionados con el vertido de residuos tóxicos en áreas periurbanas y la oposición de la comunidad afro-americanos afectados (Guha y Martínez-Alier 1997). Los discursos de oposición hacen referencia a la injusta distribución de los costos ambientales, siendo las comunidades negra, de bajos ingresos la afectada, raza y bajos ingresos. El movimiento de justicia ambiental nació en los años 60 a partir del movimiento de Derechos Civiles que luchaba en contra del racismo (Bullard 2001, 1994, Mohai y Saha 2007).

Sin embargo, en la actualidad, la concepción sobre "justicia" y "ambiental" es mucho más amplia. La mayoría de grupos transformadores comparten que las causas de las injusticias ambientales y por tanto de los conflictos son por temas no sólo de distribución de los recursos y de los costes y beneficios de las actividades extractivas sino también tiene que ver las formas de cómo se toman decisiones (participación), el no reconocimiento de las diferencias de género, etnia y clase y el ejercicio del poder de una clase dominante (Scholsbergs 2007, Fraser 1995, Young 2011). Lo ambiental se concibe como un todo (humanos-naturaleza) y los recursos naturales son al mismo tiempo medios de producción, la base de la reproducción y en muchos casos elementos sagrados o con alto valor cultural. Como consecuencia, son muy diversos las organizaciones, individuos o grupos sociales que pueden ser considerados parte del movimiento de justicia ambiental (Martínez-Alier et al 2016). Todos ellos también tienen en común su oposición a las actividades extractivas y que defienden el medio ambiente desde marcos de justicia agraria y climática, de derechos humanos o de soberanía alimentaria (Borras et al 2013).

2.1.3.1. Resistencias abiertas: movimientos sociales

El movimiento social es la principal forma de resistencia considerada en los conflictos ambientales. Son analizados desde el cómo se movilizan (protestas, manifestaciones, ocupaciones de tierra) hasta el porqué se movilizan (Robbins 2004). El movimiento social es definido por Tarrow y Tollefson (1994) como la acción colectiva de carácter ofensivo y defensivo mantenida en el tiempo. La diferencia entre movimientos sociales y partidos políticos o grupos de presión es que los movimientos son masivos y fuertes al

configurarse a partir de la aprobación y la legitimación social, que se traduce en poder social (Scott 1990). La conformación de un movimiento social puede ser explicada desde tres paradigmas: la *Lucha de clases*, los *Nuevos Movimientos Sociales* o la *Movilización de Recursos*.

El paradigma de la Lucha de clases se desarrolla a mediados del s. XIX para explicar los conflictos que existían entre la burguesía y proletariado (obreros) (Marx 1967). Según Marx, la lucha de clases es el motor de los cambios sociales. Lenin (1971) definió por clase social

> "Grandes grupos de hombres (y mujeres, agrego yo) que se diferencian entre sí por el lugar que ocupan en un sistema de producción social históricamente determinado, por las relaciones en que se encuentran con respecto a los medios de producción, uno de los cuales puede apropiarse del trabajo de otro por ocupar puestos diferentes en un régimen determinado de economía".

Según esta definición, las clases sociales responden a épocas históricas determinadas y la existencia de clases sociales presupone que hay desigualdades entre grupos humanos. Marx argumenta que la desigualdad social no depende de la naturaleza humana sino que dependen fundamentalmente del tipo de relación que tienen los individuos con los medios de producción.

El concepto de clase ya fue utilizado por Aristóteles para diferenciar entre esclavos y hombres libres (Jaeger 2004). En los estudios de Marx, la burguesía, compraba la fuerza de trabajo y controlaba los medios de producción (fábricas, tierra) y los obreros que eran los que vendían su fuerza de trabajo y no controlaban los medios productivos. Estas clases son antagonistas y por lo tanto conducirán a su enfrentamiento. El grupo dominante lucha por reproducir constantemente las condiciones materiales y sociales que le permiten continuar explotando a los trabajadores que carecen de medios de producción. El grupo dominado lucha por destruir las condiciones de su explotación.

Contemporáneamente, Weber (1972) define clase social en relación a la posición que ocupan los sujetos en el mercado incorporando además como criterios distintivos para analizar las complejas sociedades contemporáneas, el control sobre los medios de producción, el trabajo de terceros, o de recursos intelectuales escasos. Esta definición remite a categorías distintivas y perdurables de la población que se caracterizan por su acceso diferencial a los recursos que otorga el poder y las posibilidades de vida correspondientes (Portes y Hoffman 2003).

En el marco de los estudios campesinos esta tesis distingue entre, campesinos sin tierra (que trabajan la tierra para subsistir), los obreros agrarios (trabajadores asalariados que siguen trabajando la tierra) y las élites nacionales (familias de descendencia europea que controlan los principales recursos e industrias y poderes, i.e., judiciales, legislativos, militares) (Casaús 2010).

El paradigma Nuevo Movimiento Social nace en los años 60 como respuesta a cambios estructurales en la sociedad donde crece la racionalidad de la vida moderna y las múltiples identidades. Este paradigma trata de explicar por qué los actores se movilizan. En contraposición a la lucha de clases, este paradigma reflexiona sobre las múltiples identidades que existen dentro de la organización del movimiento o la acción colectiva (Tauraine 1985). La construcción de la identidad es la clave para que surja, se mantenga

y evolucione el movimiento y es desde donde se explica la diversidad y la heterogeneidad entre ellos. Se le da importancia a lo cultural y emocional (Melucci 1985).

En América Latina, este paradigma hace referencia a los movimientos feministas y ambientalistas que surgieron en los años 80 y 90. Sin embargo, estos movimientos no pueden explicarse desde la misma lógica que en Europa (a causa de un cambio de estructura social y de valores), sino que han de entenderse desde el aumento global de las demandas de materias primas, políticas neoliberales, estados a favor de élites nacionales y extranjeras y condiciones de desigualdad. Este paradigma es cuestionado, sin embargo, por estudios marxistas que argumentan que no hay nada nuevo en los movimientos sociales, sino que siguen siendo movimientos revolucionarios y agrarios basados en la lucha de clases (Foweraker 1995).

El paradigma de La Movilización de Recursos trata de explicar cómo los actores se movilizan. Entiende por recursos tanto lo monetario, como la información, la legitimidad, los contactos, y el respaldo institucional (Tarrow 2005). Para el análisis de los movimientos sociales, este paradigma caracteriza a los actores, sus estrategias, formas de movilización y narrativas o marcos desde los que reclaman (Zald 1992).

Esta tesis se basa en los dos paradigmas anteriores para explicar la movilización organizada de grupos de hogares Q'eqchi' (principalmente campesinos sin tierra) y diversas ONGs, tanto desde una perspectiva estructural y de identidad, como de movilización de recursos. En el Capítulo 5 analizando la movilización a escala territorial, nacional e internacional y en el Capítulo 6 las resistencias a escala comunitaria de grupos de hogares que trabajan en las plantaciones de palma, o venden cultivos comercializables (maíz o cardamomo).

2.1.3.2. Resistencias encubiertas: el común o "commoning"

Desde la Ecología Política, menor atención se ha prestado a otras formas de resistencia invisible y/o sin organización, que sí han sido abordadas desde los estudios campesinos (Scott 1985,1990, Scott and Kerkvliet 1986, Kerkvliet 2009). No siempre existen las condiciones idóneas para movilizarse o revelarse en contra de las actividades extractivas que crean los conflictos ambientales y, por lo tanto, las poblaciones locales han desarrollado otras formas de movilización y resistencia ocultando su oposición y evitando enfrentamientos directos, sobre todo en contextos de fuerte presión (Scott 1985).

Estas formas de resistencia son especialmente importantes en contextos autoritarios y de opresión donde confrontaciones abiertas pueden ser especialmente peligrosas. Según Scott (1985), formas de resistencia cotidianas son combinadas con otras formas que él denomina "armas sutiles de los débiles", como sabotajes, disimular falsas obediencias, robos o fingir ser ignorante, entre otras. Este autor también argumenta que ambas formas de resistencia tienen un efecto acumulativo en crear las condiciones o las bases de acciones colectivas organizadas, ya sean eventos momentáneos o intermitentes rebeliones. Esta teoría ha servido para explicar las conductas observadas en los mozos-colonos de las fincas y en los contextos de la mayoría de campesinos.

Como formas de resistencia desde lo cotidiano, ciertos estudios han hecho referencia a los sistemas de tenencia comunal basados en relaciones de reciprocidad y solidaridad comunidades en Perú o los comunes de Inglaterra del s. XIX) que actualmente ya no existen. Estos formas de resistencia pueden ser encubiertas, pero también transformarse

en acciones colectivas y movimientos sociales (como el *Movimento sense Terra* –MST- o el movimiento Zapatista) (Vergara-Camus 2009). No son sólo formas del pasado sino que, actualmente, existen ejemplos de formas comunales que resisten a los procesos de *enclosure* o desposesión (Grandia 2012). Algunos autores, que hacen referencia a algunos ejemplos de los comunes en el pasado con el objetivo de demostrar que estos no son una utopía (Linebaugh 2008; Caffentzis y Federicci 2015; De Angelis 2004). Sin embargo, dichos autores revindican que los comunes hay que construirlos desde el ahora y a partir de las luchas actuales. Desde esta aproximación, los comunes se analizan desde el proceso de *commoning* (Linebaugh 2008), es decir, desde las prácticas que producen comunes y reinventan comunidades (De Angelis 2004). Según Caffentzis y Federicci (2015), las prácticas de *commoning* son formas transicionales que cumplen los siguientes cuatro criterios:

1) Los comunes no vienen dados sino que hay que crearlos a través de relaciones sociales y formas de cooperación. En este caso quedan excluidos los llamados "comunes globales" como el aire o la lengua. Por esta razón, es que algunos autores prefieren hablar de *commoning* o de "el común" (Linebaugh 2008).

2) Los comunes deben garantizar la reproducción de la vida a través de trabajos colectivos. Por lo tanto, también queda excluidos los considerados comunes inmateriales como proyectos de colectivización a través de internet.

3) Los comunes normalmente están relacionados con la gestión de bienes comunales donde todos los miembros se benefician de ellos, pero no para un fin comercial. Bajo este criterio se excluyen los bienes públicos como la educación o la sanidad.

4) Los comunes requieren de una comunidad, donde sus miembros tienen derechos, pero también obligaciones. La comunidad debe de estar regulada por instituciones que velen por la igualdad en el acceso y la reciprocidad teniendo en cuenta las diferencias de género, clase y etnia. En este aspecto, Leach et al. (1999), Agrawal and Gibson (1999) y Vatn (2005) destacan la importancia de analizar el rol de las instituciones en mediar ante las relaciones de poder.

En esta tesis me baso en el marco de las prácticas del común para analizar formas de resistencia contemporáneas colectivas ante la expansión de los cultivos flexibles (Capítulo 5). A pesar de que las prácticas de *commoning* pueden llegar a ser una forma de resistencia abierta como son los movimientos del MST y zapatistas (Vergara-Camus 2009), yo lo analizo desde la teoría de resistencias silenciosas que, como las descritas por Scott (1985), pueden crear condiciones para acciones comunes.

2.2. Ecología Social: sistemas rurales complejos

La expansión de los cultivos flexibles como las plantaciones de palma aceitera y caña de azúcar afecta a los sistemas rurales. Los sistemas socio-ecológicos complejos son sistemas anidados donde lo social se integra en la naturaleza a múltiples escalas espaciales (Berkes y Folke 1998). De hecho, cualquier cambio en el sistema naturaleza tiene efectos impredecibles en el sistema sociedad y viceversa (Levin 1999). Estos sistemas complejos, son moldeados por diferentes valores humanos, objetivos y por estructuras políticas y económicas que operan a múltiples niveles y que determinan las dinámicas socio-ecológicas (Gomiero y Giampietro 2001).

La aproximación de sistema socio-ecológicos complejos ha sido utilizado por diferentes

autores para identificar cambios rurales contemporáneos provocados por procesos de acaparamiento de tierras (Sheidel et al 2014, Arizpe et al 2014). Holland (1995) describe a estos sistemas complejos como adaptativos y como redes dinámicas entre muchos agentes (células, especies, individuos, hogares, comunidades, etc.) que actúan en paralelo constantemente y reaccionando a lo que los otros agentes hacen. Es decir, cada uno de estos agentes son un todo y las partes del sistema a la vez (Giampietro 2003). Los hogares funcionan como hogares, al mismo tiempo que forman parte de una comunidad; y ambos agentes (hogares y comunidades) dependen el uno del otro.

Según estudios campesinos (ver Netting 1995, Chayanov 1974), el hogar es el agente donde se toman las principales decisiones productivas; sin embargo los hogares también dependen e interactúan con la comunidad. Las instituciones comunitarias median en la distribución de recursos entre hogares (Agrawal 1999) y las condiciones biofísicas limitan las posibles formas de funcionar en el hogar (Giampietro 2003). Sin embargo, no todos los hogares funcionan de la misma manera en una misma comunidad; es decir, tienen propia identidad. Al mismo tiempo, los individuos del hogar facilitan y restringen el funcionamiento del hogar. Por este motivo, en el Capítulo 6, se analizan tipologías de hogar, y los individuos dentro de cada hogar (i.e., hombres y mujeres) por separado. Asimismo, en el Capítulo 7, se analizan el efecto de las instituciones que afectan la identidad de la propia comunidad y, por ende, en el funcionamiento de los hogares. En este capítulo, además se discute cómo el sistema político y económico condiciona la existencia o degradación de determinadas instituciones.

El conjunto de la tesis se sustenta en los estudios de Chayanov (1974) sobre la lógica económica de producción campesina para analizar los cambios en relación al uso del tiempo y la tierra. Chayanov (1974) analiza cómo organizaban el sistema rural los campesinos en el contexto de Rusia de los años 20. Desde el marco de los sistemas complejos adaptativos considero que “la tierra y la mano de obra no están separadas; el trabajo forma parte de la vida, la tierra sigue siendo parte de la naturaleza, la vida y la naturaleza forman un todo articulado” (Polanyi, 2003, p 238).

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3. Metodología

3.1. Investigación Acción Participativa

Esta tesis se enmarca en la Investigación Acción Participativa (IAP) entendida como un proceso metodológico que incluye simultáneamente la investigación científica, la formación, la acción política; y que considera el análisis crítico, el diagnóstico de situaciones y la práctica como fuentes de conocimiento (Fals-Borda 1978). Tres aspectos de la IAP han sido usados en el proceso metodológico de la presente tesis: 1) investigo un tema de relevancia social; y, 2) reconozco que las personas con las que se investiga, también hacen investigación, como las comunidades Q'eqchi', ONGs, movimiento campesino; investigadores; 3) asumo que el conocimiento está mediado por los sujetos que lo producen, por lo tanto, no hay neutralidad ni en la forma de conocer ni en el conocimiento que se produce. Según Freire (1970), el conocimiento de una situación sólo es posible a través de la reflexión científica pero sobre todo a través del diálogo entre actores sociales que sufren directamente las opresiones y pensadores o activistas comprometidos con el cambio social. Por todo ello, al comienzo de la investigación di a conocer mi posicionamiento con las personas que iba a hacer investigación y establecí mi compromiso en entender la realidad compleja y la transformación de condiciones de opresión. Para mantener ese compromiso, durante el proceso de investigación mantuve diálogos y reflexión con académicos, miembros de ONG y de comunidades indígenas y representantes del movimiento social (ver sección estrategia de investigación).

Conocimiento Situado

Haraway (1995) denomina "conocimiento situado" a la aproximación alternativa al relativismo y al positivismo; en palabras suyas: "el relativismo es una manera de no estar en ningún sitio mientras se pretende igualmente estar en todas partes, al mismo tiempo que la neutralidad del posicionamiento es una negación de responsabilidad y de búsqueda crítica" (pag 329). Comparto con Haraway en que solamente (el reconocimiento) de la perspectiva parcial promete una visión "objetiva"[1]. Siguiendo esta aproximación pongo en evidencia el lugar desde donde partieron mis preguntas de investigación y los distintos roles que jugué durante el proceso (ver en la siguiente sección. Considero que, independientemente del tipo de método empleado, ningún conocimiento puede desligarse de su contexto ni de la subjetividad de quién lo emite. Haraway (1995) propone especificar desde qué punto de vista se parte y por qué ese y no otro, haciéndose explicito así el posicionamiento político. Así, mi posición inicial parte de mi interés en analizar las implicaciones negativas de la expansión de las plantaciones de palma aceitera y caña de azúcar siguiendo los trabajos previos de Hurtado (2008) y Alonso-Fradejas (2008). Además, tuve la intencionalidad de conocer las formas de vida de las comunidades Q'eqchi' en el Valle del Polochic con el objetivo de crear conocimiento útil para el movimiento campesino e incidir en las políticas de desarrollo rural de Guatemala.

Por último, esta investigación ha estado guiada bajo un modelo de investigación reflexiva, teniendo en cuenta las diferentes desigualdades que cruzan a los sujetos y las interacciones (sujeto-investigadora). Desde la *interseccionalidad* de poderes (Davis 1985) tengo en cuenta que estas desigualdades han sido condicionadas por las

[1] "objetividad" entre comillas, porque asumo que no existe una objetividad completa.

categorías de género, raza y clase social. En este caso, sobre mi condición de mujer, investigadora, joven y europea. (Desarrollar con mi experiencia o ponerlo en discusión como reconocimiento de una limitante)

3.2. Estrategia de investigación

Esta tesis ha sido desarrollada a partir de los resultados de varios proyectos de investigación y tres fases de campo (enero 2009-mayo 2011; Enero 2012 y Agosto 2014) a lo largo de siete años (2009-2016). Basándome en la metáfora de la rueda (Rundestam and Newton 2015) ilustro este proceso de tesis de constantes vueltas reflexivas e interactivas (Figura 3.1). A lo largo de este proceso jugué diferentes roles: investigadora externa, consultora para ONGs nacionales de desarrollo y campesina, e investigadora como parte del equipo productor de video-documental, evaluadora externa de derechos humanos y académica-activista. De manera trasversal formé parte de la resistencia en contra de la expansión de cultivos flexibles en Guatemala. La Tabla 3.1 resume por cada fase de investigación: los diferentes roles, los objetivos y preguntas iniciales así como las nuevas cuestiones que plantó cada fase, los métodos usados, los proyectos y los financiadores que dieron soporte a la investigación y los principales resultados publicados (artículos, informes, difusión en periódicos y radio y video-documentales).

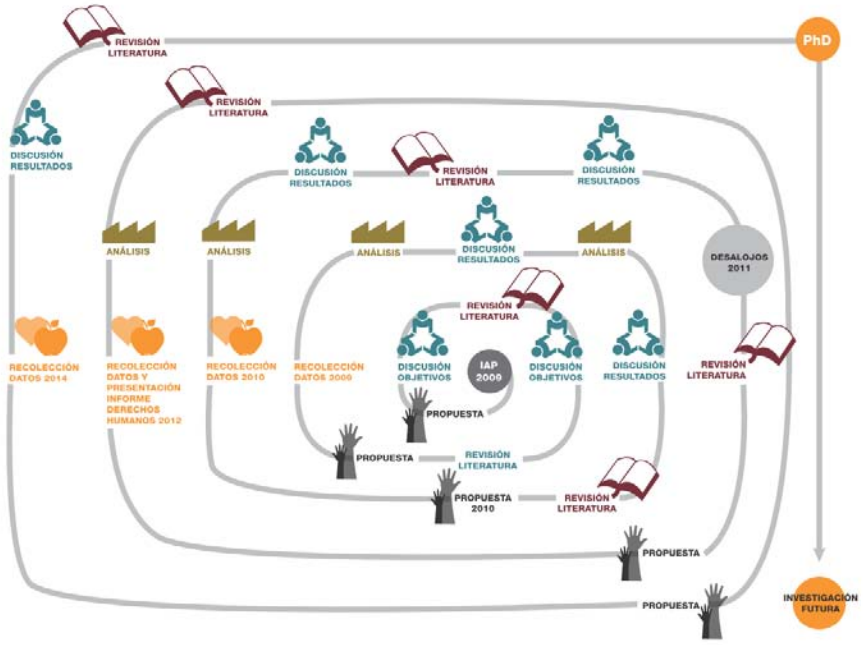

Figura 3.1 Proceso de investigación desde 2009-2016 a través de la metáfora de la rueda

Fase 1: 2009-2010 como *Investigadora externa*

Los primeros datos recolectados y usados en esta tesis han sido el resultado del trabajo cooperativo en el equipo de investigadores del Instituto de Estudios Agrarios y Rurales de la Coordinadora de ONGs y Cooperativas de Guatemala (IDEAR-CONGOOP), a través del proyecto titulado "Desarrollo de un marco de evaluación analítico-participativo de las dinámicas socio-ambientales y de la calidad de vida de las comunidades campesinas del Valle del río Polochic, Guatemala' (2009-2010). Este

proyecto fue coordinado por el Dr. Gonzalo Gamboa (tutor de esta tesis) y financiado por la Agencia Catalana de Cooperació al Desemvolupament (ACCD) en un convenio entre la Universitat Autònoma de Barcelona y el IDEAR-CONGOOP. Formando parte del grupo de investigación del IDEAR-CONGCOOP me formé en investigación acción, me dieron apoyo logístico y recibí información privilegiada sobre la actualidad política y social de la situación del campesinado y el contexto político rural. La propuesta de investigación planteaba desarrollar un marco analítico para conocer el modo de vida de las comunidades Q'eqchi y contribuir al debate la aplicación y pertinencia de las políticas de desarrollo en Guatemala.

La CONGCOOP[2] desde 1992 ha estado vinculada al movimiento campesino, en sus inicios apoyando a los retornados y población desarraigada de la Guerra Civil y desde los acuerdos de Paz, ha tenido incidencia en todas las escalas. A escala nacional ha sido la portavoz de la población campesina en las instituciones públicas y un referente político en la promoción del Desarrollo Rural Integral. A escala local y regional, ha acompañado procesos y asesorado técnico-política de organizaciones y comunidades campesinas. Así mismo, en el IDEAR, como instituto de investigación dentro de la coordinadora, se han especializado en la investigación-acción aportando tanto al diseño de políticas públicas como al movimiento y a la organización campesina. Las personas investigadoras del IDEAR llevan desde 2005 trabajando en la región del Valle del Polochic (caso de estudio de esta tesis). En el IDEAR tuvimos además espacios de discusión interna y colaboraciones con un grupo interdisciplinar de mujeres y hombres (abogados, antropólogas, economistas, sociólogos, investigador Q'eqchi' de sistemas rurales, agrónomos e ingenieros) que permitió que esta investigación se enriqueciera con todas éstas perspectivas.

Durante la investigación en el IDEAR-CONGCOOP, realizamos dos talleres previos a la recolección de datos con investigadores, representantes de ONGs y representantes de comunidades para adecuar los objetivos a la realidad del país y a los intereses y demandas de la población campesina e indígena. Así mismo, presentamos y discutimos los resultados con estos grupos, en diferentes fases de la investigación. Dichas discusiones nos permitió, por un lado, generar nuevas preguntas de investigación relacionadas específicamente con la expansión de las plantaciones de palma aceitera y caña de azúcar y sus implicaciones socio-económicas en la vida de los hogares Q'eqchi'. Los asistentes a las discusiones incidieron mucho en no considerar ni todas las comunidades iguales ni homogéneas y la importancia de conocer esa heterogeneidad para analizar los impactos. Al mismo tiempo, algunos representantes de las comunidades mostraron su interés por conocer cómo vivían otras comunidades que estaban más próximas a la expansión de estos monocultivos.

¿Cuáles eran las implicaciones de la expansión de la palma aceitera y la caña de azúcar? ¿y cómo afectaban diferencialmente a las mujeres? ¿Qué diferencias hay entre los hogares Q'eqchi'?

Al mismo tiempo fui financiada por el proyecto "Evaluación analítica-participativa del papel de la mujer en la economía campesina y la soberanía alimentaria. Cotidianidad territorial, en el contexto de políticas agrarias y de desarrollo rural en el Valle del

[2] CONGCOOP: http://www.congcoop.org.gt/; IDEAR: http://idear.congcoop.org.gt/

Polochic", financiado por *International Land Cualition* (ILC*)* que me permitió junto al investigador Alberto Alonso-Fradejas profundizar en los roles de género dentro de los hogares Q'eqchi'. Este proyecto me motivó a vincularme con reflexiones y pensamientos feministas (publicación Fradejas-Alonso y Mingorría 2010).

El proceso participativo de discusión sobre los modos de vida y las implicaciones de las plantaciones de palma, llevaron a que hogares y comunidades solicitaran más información sobre cómo vivían en otras partes del Valle. Además, tanto mujeres como hombres mostraron mucho interés en aprender y desarrollar nuevas prácticas productivas que mejoraran sus condiciones de vida y al mismo tiempo respetaran las dinámicas naturales del medio ambiente. A partir de aquí nació la idea de buscar financiamiento para la realización de Escuelas campesinas (ECAs). El proyecto"Fortalecimiento productivo y organizativo de comunidades indígenas-campesinas del Valle del Polochic, Guatemala" y fue financiado por la *Fundació Autònoma Solidària* (FAS) nos permitió llevar a cabo la formación redes de intercambio de conocimiento local para el desarrollo de sistemas productivos agroecológicos siguiendo la metodología de Campesino a Campesino (Holt-Giménez 2008). El acompañamiento y participación en este proyecto me permitió conocer los modos de vida y las formas de resistencia ante el acaparamiento de tierras de otros hogares y comunidades en el Polochic y fuera de él, a la vez que contribuyó a mejorar el sistema productivo de algunas familias y la motivación por aprender nuevas técnicas de producción agroecológica.

Tabla 3.1 Roles, objetivos principales, métodos, contribución a resultados y otras publicaciones por cada fase de investigación

	Fase 1 2009- 2010	Fase 2 2010-2011	Fase 3 2011	Fase 4 2011-2013	Fase 5 2014-2016
Roles	Investigadora externa	Consultora e investigadora en documental	Observadora de desalojos e investigadora en documental	Académica-activista y evaluadora de derechos humanos	Académica -activista
Objetivos principales	Desarrollar un marco analítico para conocer el modo de vida de las comunidades Q'eqchi.	Monitorear la evolución el conflicto y mantener el contacto con las comunidades.		Monitorear, denunciar, visibilizar y analizar los conflicto relacionados con la palma aceitera y la caña de azúcar.	
Métodos	Observación participante, entrevistas en profundidad y semi-estructuradas, cuestionarios.	Observación participante, entrevistas	Observación participante, entrevistas, análisis de contenido de medios de comunicación	Observación participante, análisis de contenido de medios de comunicación	Entrevistas, análisis de contenido de medios de comunicación
Contribución a resultados	Capítulos 4, 5, 6 y 7	Capítulo 4		Capítulo 4	Capítulo 4 y 7.
Otras publicaciones (informes, notas de prensa, documentales) Ver Anexo	- Mingorría, S. Gamboa, G y Alonso-Fradejas, A. 2011 - Gamboa, G y Mingorría, S. 2010 - Mingorría, S y Gamboa, G. 2010 - Alonso-Fradejas, A y Mingorría, S. 2010 valledelpolochic.wordpress.com	- Documentales: Aj Ral Ch'och (hijos de la tierra) 2012; y Desalojos en el Valle del Polochic 2011. Caracolproducciones e IDEAR-CONGCOOP; El Oro o la vida, 2011. Caracaolproducciones. - Carmen Díaz (Pseudónomo) 2011 - Entrevista Radio El Rincón del Sur 2011		- Grupo de Investigación en Derechos Humanos y Sostenibilidad- EdPAC-GIDHS- 2012 - Aparicio, M. Flores, M. Laderos, A. Mingorría, S, Ortega, D. y Tudela, E. 2013.	- Mingorría, S. 2014 https://ejatlas.org/Polochic

2010-2011: *Consultora*

Como consultora de la Fundación Guillermo Toriello (FGT) y el Comité de Unidad Campesina (CUC) hice visitas continuadas a la región del Polochic, lo que me permitió monitorear el conflicto durante un año más y mantener el contacto con las comunidades. El proyecto del que formé parte se titulaba 'Mecanismo de respuesta rápida frente a la fuerte subida de los precios de los productos alimenticios en los países en desarrollo' (2010-2011), y fue financiado por la Unión Europea-Oikos.

La FGT[3], fue creada en 1997 tras los Acuerdos de Paz para dar apoyo a las familias desarraigadas y acompañar el proceso de incorporación de guerrilleros/as a la vida legal. Además trabaja directamente con comunidades campesinas e indígenas para el desarrollo rural integral, a partir de la memoria histórica y el asesoramiento técnico. Parte de sus miembros formaron parte del movimiento revolucionario guerrillero durante la Guerra Civil.

El CUC[4] nace en 1978, después de varios años de trabajo clandestino, con el fin de revindicar y unificar las luchas de los grupos de mestizos y ladinos y de comunidades indígenas campesinas. El impulso de la CUC surge a partir del reclamo conjunto de mejores condiciones salariales en el área rural (jornaleros y cuadrilleros) y en contra de la militarización y la discriminación de la población indígena. Esta organización fue impulsada por religiosos afines al grupo revolucionario: Ejercito Guerrillero de los Pobres (EGP) (Murga-Armas 2011).

Ambas organizaciones fueron actores claves y protagonistas en la evolución del conflicto del Polochic, por lo que también fueron sujetos de mi análisis sobre la dinámica del conflicto, la visibilidad y el rol de las ONGs.

Al mismo tiempo, durante ese año, formé parte del equipo de producción de dos documentales: 1) "El oro o la vida" producido por Caracolproducciones sobre la minería de oro en Guatemala, El Salvador y Honduras que me permitió darme cuenta de las especificidades del conflicto de los cultivos flexibles en relación a otros conflictos extractivos, en este caso de la minería; 2) Aj Ral Choch (hijos e hijas de la tierra) sobre las implicaciones de la expansión de las plantaciones de palma aceitera y caña de azúcar en Guatemala coproducido por Caracolproducciones e IDEAR-CONGCOOP. Ver más adelante (sección xxx) información sobre la utilización de la metodología del video-documental

2011: *Observadora de los desalojos*

Los desalojos de unas 800 familias de 12 comunidades Q'eqchi' en el Polochic ocurridos en marzo de 2011 cambiaron el rumbo de la investigación y mi propio rol. Como consultora de la FGT y el CUC me encontraba haciendo trabajo de campo en el Polochic junto a un grupo de técnicos. En un principio pensábamos que existía seguridad suficiente para realizar el trabajo de campo ya que desde 2010 el gobierno se predispuso a dialogar para resolver varios conflictos sobre la tierra del Polochic. Sin embargo, ocurrió que mientras compañeros de dichas organizaciones y representantes de comunidades del Polochic se reunían en la capital con instituciones del Estado y observadores de derechos humanos en una mesa de diálogo, el propio gobierno rompió

[3] FGT: http://www.fgtoriello.org.gt/
[4] CUC: http://www.cuc.org.gt/

el diálogo apoyando la ejecución violenta de 12 órdenes de desalojos. Estos desalojos fueron una desagradable sorpresa para todas las que estábamos allá. Presenciamos y observamos, cómo una familia oligarca (dueña de un ingenio de caña de azúcar) presionaba a las propias fuerzas del Estado, para quemar, destrozar cultivos y casas y capturar a los principales líderes comunitarios; cómo la política asesinó a un campesino y al mismo tiempo cómo la noticia no llegaba a los medios de comunicación. Fuimos testigo, también, de cómo la Oficina del Alto Comisionado de Naciones Unidas, Brigadas Internacionales de Paz o la Procuraduría de Derechos Humanos, fueron simples testigos del excesivo uso de la fuerza y la violencia de los desalojos. El entonces Alto Comisionado, pasó sólo unas horas en el terreno por la falta de seguridad. De esa semana me surgieron muchas ganas de denunciar y de que se conociera lo ocurrido (ver publicaciones en Anexos); al mismo tiempo que me surgieron nuevas preguntas a investigar. Desde mi sentido común en un Estado de "derecho" no debería ser posible que ocurrieran cosas así. Recuerdo las palabras de mucha gente que me llamó estando allá, y me dijo, "*es importante que te quedes, lo grabes y fotografíes todo*". Y eso hice/imos. Desde que salí del Polochic después de una semana de desalojos, intenté escribir e investigar más sobre este caso y denunciar en foros, radios, y redes sociales lo que había ocurrido. Participé en la producción del documental: Los desalojos en el Valle del Polochic de Caracolproducciones. Junto a los inicios de Prensa Comunitaria (medios alternativos de comunicación-investigación Guatemala), monitoreamos los medios de prensa, investigamos la trayectoria de la familia oligarca (dueña del ingenio de caña) y su pasado vinculado a la violencia en las fincas de café y la Guerra Civil. Por motivos de seguridad decidí acabar con el trabajo de campo y continuar la investigación siendo menos visible.

En el capítulo 4 analizo la dinámica del conflicto desde 1998-2014, donde se incluyen los desalojos como semana de mayor intensidad de violencia y donde respondo a la pregunta de qué condicionó la visibilidad internacional de este conflicto.

2011-2013*: Académica-activista y evaluadora de derechos humanos*

A partir de mayo de 2011 me matriculé en el Doctorado de Estudios Ambientales del ICTA-UAB y formé parte del equipo "Rural system group" en donde reflexioné sobre el análisis de sistemas complejos rurales junto Gonzalo Gamboa, construí indicadores para analizar las implicaciones del trabajo de las plantaciones de palma aceitera y el acceso a tierra en los hogares Q'eqchi' (Capítulo 6). Realicé varias estancias en el Laboratorio de Socio-econosistemas de la Universidad Autónoma de Madrid (UAM) donde analice estadísticamente de nuevo los datos de campo junto a Berta Martín-López.

Desde mi llegada a Barcelona en junio de 2011, me incorporé al Grupo de Investigación en Derechos Humanos y Sostenibilidad (GIDHS) de la organización catalana, *Educació per la Acció Critica* (EdPAC), Cátedra Unesco de Sostenibilidad de la Universitat Politècnica de Catalunya (2011-2016) con poder consultivo en Naciones Unidas desde 2012. GIDHS nace en 2008 para evaluar la violación de derechos humanos vinculados con el extractivismo en el Noreste Argentino en colaboración con la Secretaría de Derechos Humanos de La Via Campesina-Cono sur. Tras la evaluación, los resultados fueron presentados en 2009 ante e Consejo de Derechos Humanos en Ginebra. Este procedimiento (evaluación, informe y presentación ante Naciones Unidas) se repitió en Paraguay (2009), Bolivia (2010) y en Guatemala (2011 y 2012). En la evaluación de derechos humanos en Guatemala participamos doce personas. Los resultados fueron presentados como aportación al Examen Permanente Universal en 2012 de Guatemala

en colaboración con la organización *Internacional Food First Information and Action Network* (FIAN) (Ver Resultados del Exámen Periódico Anexos con el código JS12).

Colaborando en GIDHS me formé, aprendí y reflexioné sobre la utilidad y los limitantes del marco de derechos humanos. Este conocimiento, además, me permitió profundizar en las preguntas realizadas durante las entrevistas a miembros de organizaciones de Derechos humanos como (Human Right o Human Right Commision). Estas reflexiones son incluidas en el Capitulo 4.

Además, desde su creación en 2012 formamos parte como EdPAC de la Plataforma de Solidaridad con Guatemala de Barcelona junto a 10 otras organizaciones más[5]. Creamos la Plataforma con el objetivo de unir esfuerzos para denunciar las violaciones a los derechos humanos en Guatemala y apoyar, acompañar las luchas de los pueblos que defienden su territorio. Para ello, realizamos desde Barcelona y en Guatemala actividades de denuncia, sensibilización y presión política para la justicia social y ambiental. Tratamos temas de memoria histórica, judicialización y criminalización, defensa del territorio y la tierra, presos políticos, extractivismo. Mi participación me permitió continuar vinculada a los procesos políticos y estar actualizada de lo que ocurría en Guatemala.

En enero de 2012 regresé a Guatemala para discutir resultados tanto del informe de derechos humanos como recolectar datos sobre la evolución del conflicto en el Polochic.

En 2013, con GIDHS, participamos en el proyecto de la Coalición *Hands-off The Land* (manos fuera de la tierra), *Transational Institute* (TNI) y la Coordinación Europea de Vía Campesina sobre acaparamiento de tierras en Europa. Durante el proceso de investigación reflexionamos sobre el concepto de acaparamiento de tierras en Europea, contrastándolas con las ocurridas en Latinoamérica.

2014 hasta la actualidad *Académica activista*

En agosto de 2014, realicé la última fase de campo como investigadora activista del ICTA-UAB para devolver y discutir los resultados sobre las implicaciones de palma aceitera en los hogares Q'eqchi'. Por un lado, realicé dos seminarios metodológicos y de resultados en la Universidad de San Carlos de Guatemala y el IDEAR-CONGCOOP. Estos seminarios tenían como objetivo evaluar las ventajas y limitaciones de la metodología usada y discutir los resultados obtenidos. Por otro lado, junto con la Dr. Laura Hurtado y la FGT realizamos varios talleres con una representación de las comunidades del Polochic. Estos talleres tenían como objetivo analizar las dinámicas de despojo en el Polochic y las implicaciones de la expansión de las plantaciones de palma y caña de azúcar (Hurtado 2014). Durante esta visita también realicé entrevistas a las ONGs que habían estado envueltas en el conflicto del Polochic sobre sus roles, alianzas y percepciones del conflicto.

[5] AAPG (Associació d'Amistat amb el Poble de Guatemala), Alternativa-Intercanvi amb els Pobles Indígenes, Brigades Internacionals de Pau de Catalunya, EdPAC (Educació per a l'Acció Crítica.-*Estatus Consultiu del Consell de DH de l'ONU*-); Entrepobles; Equip Basig-ESFA; Grup de suport a la *Iniciativa de Recuperación de la Memoria Histórica* (IRMH); ODG (Observatori del Deute en la Globalització); SETEM, i SUDS: Internacionalisme - Solidaritat - Feminismes.

En 2015 participé como investigadora en el proyecto Europeo: *Global and Local food chain Assessment: MUltidimensional performance-based approach* (GLAMUR) dirigido por Mario Giampietro. Las reflexiones metodológicas sobre la construcción de indicadores y la representación compleja de la realidad inspiraron el análisis realizado en el capítulo XXX.

3.3. Caso de Estudio

Se ha mostrado que las dinámicas y resultados del acaparamiento de tierras por la expansión de los cultivos flexibles ha dependiendo del contexto específico donde se dan, no sólo del país sino también del territorio (Borras et al 2010). De acuerdo con lo anterior, esta tesis se basa en el análisis empírico de un caso de estudio, permitiéndome así entender estos fenómenos contemporáneos desde la aproximación del conocimiento situado; ya que permite el análisis en profundidad de un contexto real, en vez de buscar generalizaciones estadísticas (Yin 2003, Ford et al 2010). El caso de estudio además es apropiado para analizar problemas y sistemas complejos donde las principales preguntas de investigación parten de un CÓMO (Robinson 2008). Utilizo el caso de estudio de El Valle del Polochic (Guatemala) usando una aproximación multi-escalar e interdistiplinar (Scholes et al. 2013). En el Capítulo XX también analizo el conflicto desde una perspectiva dinámica; ya que el tiempo de análisis abarca desde 1998 (llegada de las plantaciones de palma de aceite) al 2014.

A pesar de las negativas implicaciones que ha tenido para la población local, los estudios sobre la expansión de monocultivos o el acaparamiento de tierras en países centroamericanos ha recibido poca atención. Esto se debe a que la superficie ocupada por estos cultivos es relativamente más pequeña que en países Latinos Americanos o del sudeste Asiático (Edelman y León 2013).

Este estudio es de especial interés porque fue uno de los territorios asignados por el Ministerio de Agricultura y Ganadería de Guatemala como potencial para las plantaciones de palma aceitera y caña de azúcar y es por donde actualmente se está expandiendo (Alonso-Fradejas 2012). El Polochic es la primera región Q'eqchi' por donde se expandieron ambos cultivos (Alonso-Fradejas 2008); los cuales ocupan tres cuartas partes de la tierra fértil del Valle (más de 100.000 Hectáreas) (Hurtado 2008, Alonso-Fradejas et al 2012, Tomei 2015, Alonso-Fradejas 2014, Mingorria et al 2014).

En el capítulo 4, el análisis se desarrolla a una escala global, nacional y territorial. La escala global y nacional hacen referencia al análisis del rol y las alianzas de ONGs internacionales (alguna de ellas son parte del movimiento de Justicia Agraria Transnacional) y ONGs nacionales que han intervenido en el conflicto de palma aceitera y caña de azúcar en el Polochic. La escala territorial (Valle del Polochic) es la escala donde analizo la dinámica del conflicto vinculado a los cultivos flexibles. El caso de l Polochic es especialmente relevante debido a que es una de las zonas con mayor número de conflictos agrarios en Guatemala (Secretaria de Asuntos Agrarios 2011). Además, ha sido un caso visible a nivel internacional por la violación de derechos humanos vinculados al extractivismo agrario (GIDH 2011, NNUU 2011). Pero también por ser anunciado como un ejemplo exitoso de lucha de las organizaciones y las comunidades locales en contra de los agrocumbustibles y el acaparamiento de tierras (Intemón Oxfam 2014, Velazquez 2014).

En el capítulo 5, el análisis lo enfocamos (Mingorría, Iniesta-Arandia, Ravera y Martín-López) en la escala comunitaria, donde analizamos las instituciones no formales de la

comunidad como formas de resistencia ofensivas y ofensivas ante el acaparamiento de tierras. Estudios antropológicos (Grandia 2009, Wilson 1999, Norman 2008) han mostrado como ha sido la forma de funcionar de las comunidades Q'eqchi' las que les ha permitido sobrevivir a diferentes olas de despojo indígena y expandirse por el territorio. En el Polochic, más del ochenta por ciento de la población es Q'eqchi' (INE 2004) y es particular porque en esta región conviven y resisten ante la expansión de los monocultivos grupos sociales diferenciales. Por un lado un grupo de exmozos-colonos que actualmente "ocupan" (sin título de propiedad), parte de las tierras fértiles del Valle, de interés por las empresas de las plantaciones; y grupos de hogares que huyeron a la sierra (zonas más aisladas) durante la Guerra Civil y tienen títulos de propiedad colectivos.

El capítulo 6 y 7, la escala de análisis que elegimos (Mingorría, Gamboa, Martín-López y Corbera) fue el hogar. El foco de análisis es el efecto combinado del trabajo en plantaciones de palma de aceite y el acceso a tierra de los hogares. Este estudio cubre el vacío de estudios sobre los impactos de las plantaciones de palma aceitera a escala de hogar en contextos diferentes al continente Asiático (e.g. Obidzinski et al 2012 ; Feintrenie et al 2010 y Rist et al 2010). Además, en este caso incluimos la dimensión de género, separando consecuencias entre hombre y mujeres del hogar.

Selección de comunidades

Antes de elegir las comunidades con las que se trabajaría, se presentó el proyecto de investigación en todas las comunidades donde el IDEAR-CONGCOOP y su afiliada local CONCAD ya habían trabajado o donde otras organizaciones como la FGT habían trabajado. Los criterios que priorizaron la selección fueron:

Dar continuidad a proceso de IAP que habían iniciado las organizaciones IDEAR-CONGCOOP y FGT.

- Cierta seguridad legal en tenencia de la tierra (que no estuvieran en riesgo de desalojo).
- Predisposición en participar en la investigación.
- Comunidades situadas en diferentes sitios geográficos (valle, montaña).
- Comunidades que teniendo común el cultivo de la milpa combinan otras actividades económicas (trabajo asalariado en la palma, cultivos comerciales).

Finalmente tras la realización de asambleas comunitarias en más de 6 comunidades, se optó por realizar la investigación en cuatro comunidades. Dos de ellas situadas en la sierra (Tierra Linda y Concepción II) y dos en el Valle (La Esperanza y Balandra). Sabiendo que la mayoría de hogares de Tierra Linda y Concepción II trabajan en producir cardamomo, los hogares de la Esperanza vendiendo excedentes de maíz y en Balandra trabajando en las plantaciones de palma aceitera. No pudimos seleccionar hogares que trabajan en el corte de la caña de azúcar, por la inseguridad que corrían esas comunidades en ser desalojadas y por la desconfianza política de las comunidades seleccionadas hacia esos hogares.

3.4. Métodos para obtención de datos

En cada capítulo de resultados he combinado distintos métodos cualitativos y cuantitativos para el análisis. Esta combinación me permitió por un lado contrastar resultados y obtener distintos tipos de datos esenciales para entender la complejidad del sistema (Nightingale 2015).

3.4.1. Observación Participante:

La observación participante es considerada una herramienta básica en la investigación etnográfica y estudios antropológicos (Taylor y Bogdan1987). En este caso, aplicada durante el trabajo de campo, fue fundamental para el diseño y aplicación del resto de las herramientas para la obtención de datos, y por lo mismo, para el éxito del trabajo de campo... Fue imprescindible para la construcción de la guía de las entrevistas (DeWalt y DeWalt, 2002) y cuestionarios, la elección de los sujetos a investigar; sobre todo en el capítulo 4 para la selección de las ONGs y los miembros de ONGs a los que entrevistar.

Participé en encuentros campesinos en contra de las plantaciones y asambleas comunitarias, al mismo tiempo que "participé en el conflicto" como activista. Durante la primera fase de campo (2009-2011), pasaba jornadas de quince días viviendo día a día con las comunidades, en casas particulares o en las casas de la comunidad. Esta convivencia me posibilitó, por un lado adquirir confianza con los miembros de la comunidad, pese a que con muchos no pudimos comunicarnos verbalmente por las diferencias del idioma; y por otro lado, obtener información de sus actividades cotidianas y la repartición de trabajo familiar en las actividades productivas y reproductivas. Por ejemplo, participé y observé el trabajo en el hogar, en las principales fases del cultivo del maíz y el cardamomo, el trabajo en el corte de la caña y el fruto de palma aceitera y las ceremonias católicas, evangélicas y mayas. Toda esta información que fue esencial para contrastar y discutir los resultados.

3.4.2. Video documental herramienta de análisis:

La grabación del documental "Aj Ral Choch (hijos de la tierra)" sobre las plantaciones de palma aceitera y caña de azúcar, también fue una herramienta participativa que sirvió para obtener información en profundidad y reflexionar sobre las condiciones de vida en el trabajo de palma aceitera y caña de azúcar. La presencia de la cámara y del equipo productor sirvió como elemento motivador para que tanto trabajadores temporales Q'eqchi' de las plantaciones de caña de azúcar y palma aceitera, explicaran sus condiciones de trabajo; como comunidades y hogares Q'eqchi' dialogaran sobre las implicaciones ambientales, sociales y económicas que habían traído estos cultivos a la región. Especialmente el documental "Los Desalojos en el Valle del Polochic", enfocado en la expansión de la caña de azúcar, fue útil para obtener información de los discursos y narrativas de actores que no había podido entrevistar por mi rol de activista o académica (Ej familia de alemanes) (Capítulo 4).Ambos documentales además fueron específicamente propuestos como herramienta de difusión a nivel nacional e internacional (traducidos al Q'eqchi' , inglés y alemán) y como herramienta de formación política entre la población Q'eqchi' .

3.4.3. Entrevistas en profundidad y semi-estructuradas

Durante la primera fase campo (2009-2011), se realizaron 12 entrevistas a líderes indígenas, representantes de ONGs y representantes del movimiento campesino. El objetivo de estas entrevistas era realizar un diagnóstico del contexto y conocer la percepción de los entrevistados de los procesos de expansión de la palma aceitera y caña de azúcar, y los modos de vida de las comunidades Q'eqchi' (Capítulos). Una vez

seleccionadas las comunidades donde íbamos a trabajar, entrevisté junto a Gonzalo Gamboa y un traductor (líder comunitario) a 14 hombres y mujeres representantes y líderes de las cuatro comunidades (Capitulos) (ver preguntas Apendice). El objetivo de estas entrevistas fue conocer el funcionamiento de la comunidad, la forma de tomar decisiones sobre el repartimiento de la tierra… Las entrevistas se basaron en preguntas en profundidad con alto grado de libertad para ser respondidas (Robin y Robin 1995), con algunas secciones con preguntas estructuradas con el fin de tener la misma información de cada comunidad y poderlas comparar.

3.4.4. Monitoreo de medios (2000-2014)

Desde los desalojos violentos de marzo de 2011, con los periodistas-investigadores de Prensa Comunitaria, realizamos un monitoreo sistemático de las noticas publicadas sobre el caso del Polochic en periódicos nacionales y digitales. El objetivo era conocer cómo se estaba visibilizando el conflicto, y qué voces fueron representadas. Al mismo tiempo realizamos una búsqueda de noticias publicadas antes de los desalojos a través del buscador de *google* con las palabras clave "valle del Polochic" y el archivo de prensa del IDEAR-CONGCOOP. Rastreamos noticias publicadas desde 1998 (llegada de las plantaciones de palma). Posterior a los desalojos, seguí el monitoreo a través de una alerta en el buscador de *google*, con las mismas palabras claves hasta agosto de 2014.

3.4.5. Cuestionarios a hogares

A partir de la información recopilada en las entrevistas y la observación participante se elaboró un cuestionario diferencial/diferenciado? para hombres y mujeres cabezas del hogar. Para la elaboración del cuestionario seguimos la guía sobre usos del tiempo de Harvey y Taylor (2000). Incluimos preguntas sobre flujos monetarios (ingresos y gastos), energéticos (fertilizantes), estructura demográfica e historia de la familia, usos del tiempo y usos de la tierra, separados por actividad productiva y reproductiva (ver cuestionarios en Anexo). Aplicamos un total de 422 cuestionarios (211 a los hombres y 211 mujeres) a 211 hogares. La muestra de hogares fue estratificada en relación al número total de hogares de las cuatro comunidades seleccionadas, con un intervalo de confianza del 99%.. Los hogares fueron seleccionados aleatoriamente, a través del listado de hogares de cada comunidad, que las propias comunidades habían realizado, o que hicimos nosotras mimas. Las preguntas se hicieron cara a cara por el equipo de investigadores junto a un traductor o traductora: Jose Domingo Montejo (abogado guatemalteco), Ángela Juanita Bunch (antropóloga guatemalteca), Gonzalo Gamboa (investigador del ICTA-UAB) y yo misma. Los cuestionarios de mujeres fueron realizados por una de las investigadoras junto a una traductora y los de hombres, tanto por hombres como mujeres investigadoras y un hombre traductor.

3.5. Diseño Analítico

3.5.1. Análisis de contenido:

En distintos capítulos apliqué el análisis de contenido cuantitativo y cualitativo. Para qué? Explicar primero en qué consiste el análisis de contenido, piensa que no todo el mundo está familiarizado con esto.

El análisis cuantitativo lo realicé usando el programa *Iramuteq* (interface de R) que permite obtener indicadores estadísticos y representaciones gráficas a partir del análisis lexicométrico de textos escritos. En esta tesis específicamente fue usada la aplicación del análisis cluster. En este análisis, el programa divide el texto en pequeños segmentos

a partir de los cuales cuenta las palabras similares[6]. A continuación forma grupos de segmentos de texto (clusters) en función de la frecuencia con que las palabras están contenidas en los distintos segmentos. El resultado final son narrativas configuradas a partir de grupos de palabras que han sido usadas juntas. En esta tesis, este programa fue aplicado en 116 noticias de prensa y artículos de opinión. El objetivo de este análisis fue identificar las narrativas visibles del conflicto del Polochic a lo largo de las fases que yo previamente identifiqué-

El análisis cualitativo de contenido lo aplicamos para identificar diferentes narrativas utilizadas por diferentes actores sociales para describir cambios rurales y pobreza. Como muestran otros estudios, la elección de una narrativa para describir la realidad determina los resultados de un proceso de evaluación (Gamboa et al 2016).

En el capítulo 4 sobre los cambios rurales provocados por la combinación de trabajo en la palma y acceso a tierra en los hogares, el análisis de contenido se realizó en informes del banco mundial y la FAO y de entrevistas a los representantes de las comunidades. Así mismo, el análisis de contenido se aplicó en el capítulo xxx donde comparamos (Mingorría, Gamboa, Sheidel) la situación de pobreza de hogares con distinto sistema productivo. Este análisis sirvió para identificar narrativas diferentes sobre el concepto de pobreza desde los textos de dos políticas nacionales aprobadas: una (Política de Desarrollo Rural) apoyada por el movimiento campesino y otra (Programa Nacional de Competitividad) sólo apoyada por los últimos dos gobiernos. Ambas con objetivo general de reducir la pobreza en el área rural (Capítulo 6). En estos dos capítulos las narrativas sirvieron para definir atributos a partir de los cuales se crearon indicadores.

3.5.2. Aproximación MuSIASEM: Indicadores y tipologías

Esta tesis analiza el metabolismo de los hogares Q'eqchi' desde la aproximación del Análisis Multi-escalar integrado del Metabolismo de la sociedad y los ecosistemas –MuSIASEM en inglés- (Giampietro y Mayumi 2000; Giampietro et al 2009). El MuSIASEM provee al analista de un marco de contabilidad que permite relacionar los elementos de un sistema operando a diferentes escalas. En esta tesis se ha aplicado para la construcción y evaluación de diferentes tipologías de hogares campesinos, a través de un conjunto de indicadores biofísicos que expresan el metabolismo de los mismos. El MuSIASEM a su vez se inspira en el enfoque bioeconómico y el modelo FONDO/FLUJO desarrollado por Georgescu-Roegen (1971). Este modelo que distingue entre dos categorías de análisis, 1) los FONDOS que son aquellos que en un espacio determinado y durante un periodo de tiempo, se mantienen y que debe ser reproducidos y 2) los FLUJOS que son aquellos elementos utilizados y transformados por los fondos, cambiando su identidad durante el espacio-temporal del análisis. La selección de los fondos y de flujo categorías depende en última instancia de los objetivos del análisis (ver Ravera et al 2014, Giampietro 2003; Giampietro et al 2011). En esta tesis los elementos FONDO, son la tierra y las personas. La tierra se mide a través de las superficies de los distintos usos del suelo, y las personas se miden a través de los usos del tiempo en las diferentes actividades que desarrollan. (Capítulo X). La actividad humana se refiere al número de horas disponibles dentro del hogar que son asignadas a diferentes tareas tales como dormir, comer, trabajo dentro del hogar, trabajo asalariado, trabajo en la producción de cultivos para mercado. El uso de la tierra,

[6] Iramuteq utiliza un diccionario para transformar todos los tiempos verbales a infinitivo, las palabras en plural a singular y tos los adjetivos a adjetivos masculinos, con el fin de contar como similares las palabras que tengan la misma raíz.

se refiere a la cantidad de área utilizada por el hogar que se asigna a diferentes actividades. Estos dos elementos de los hogares rurales pueden ser entendidas también como los principales recursos productivos, a la vez que los principales limitantes para el desarrollo rural (Pastore et al 1999;. Grünbühel y Schandl 2005). También he considerado como FONDO las infraestructuras colectivas y la identidad (Capítulo x). Hemos considerado como elementos FLUJO, los ingresos, los gastos y el consumo y producción de maíz. La definición de estos flujos para el análisis de los hogares se basa en las prioridades expresadas por las personas y hogares participantes en este estudio

Tipologías de hogar

De acuerdo a Giampietro (2003)[7], una *tipo* es una simplificación de entidades reales. Una representación basada en un conjunto de relaciones esperadas de los componentes de la entidad, las cuales dan lugar a un comportamiento esperado. Las características de un *tipo* están siempre asociadas con la posibilidad de realizar una función dada y esperada.Las tipologías de hogares han sido utilizadas en el marco del análisis de sistemas complejos rurales como herramienta de análisis para clasificar y caracterizar hogares con diferentes modos de vida (Williams y Grünbüehel 2010). Asimismo, este análisis permite entender el sistema a escala de hogar, o a escalas superiores, como comunitaria o territorial (Mingorría y Gamboa 2010). Además, estudios recientes muestran como las tipologías son útiles para responder preguntas de análisis donde hay que comparar la forma de vida de muchos hogares (ver número especial Ravera et al 2014) .

La definición de tipologías se realiza de acuerdo a los objetivos del análisis. Así, uno de los objetivos del capítulo es explorar los efectos conjuntos de trabajar en las plantaciones de palma y el acceso a la tierra en el bienestar de los hogares. Por esta razón, se han definido cuatro tipos de hogar de acuerdo a si trabajan en las plantaciones de palma y si tienen derecho comunitario a tierra (Palma/tierra, Palma/no tierra, No palma/tierra, No palma/no tierra). Con el fin de corroborar el efecto de dichos componentes en el bienestar de los hogares, se aplicaron test de comparación de medianas: Kruskal-Wallis y Mann-Whitney U (Capítulo X).

En el capítulo 5, las tipologías de hogares son creadas en relación a las diferencias en la base de su sistema productivo (mixto-tradicional; venta de excedentes, trabajo en plantaciones de palma), ya que tiene el objetivo de estudiar cómo diversas actividades económicas afectan a lidiar con la pobreza.

Finalmente, en el capitulo , creamos tipologías a través de la aplicación de estadística multivariante. En particular, se aplicó un análisis de Componentes principales (ACP) con el objetivo de comprender la variabilidad socio-economica en los hogares de las cuatro comunidades Q'eqchi'. Para identificar el número de factores significativo con los que aplicar el análisis de clasificación jerárquica, se usó el criterio de Kaiser (i.e. valor propio > 1) (Kaiser 1960). Finalmente, se identificaron tipología de hogares mediante la aplicación del análisis de clasificación jerárquica, usando el método de Ward como técnica de aglomeración (Ward 1963).

[7] Giampietro M. 2003. Multi-scale integrated analysis of agro-ecosystems. Boca Raton, FL: CRC Press; .

3.6. Ética de Investigación

Las comunidades que participaron en esta investigación dieron su consentimiento en asamblea y cada hogar antes de ser entrevistado. Siguiendo el protocolo de cada comunidad, el proyecto de investigación fue presentado en la comunidad todas las veces que se solicitó, donde los miembros de la comunidad expusieron sus dudas y preocupaciones; así como sus argumentos de porqué querían o no participar. Sólo participaron en esta investigación las comunidades que consensuaron hacerlo; si algún grupo de hogares no estaba de acuerdo en la participación, no se colaboró con esa comunidad. En muchos de los casos, no fue una decisión inmediata; sino que tuvieron varias semanas para hacer sus consultas internas.

Para entrevistar a los hogares, se volvió a pedir un consentimiento individual a cada familia y se siguieron las recomendaciones de los líderes de no entrevistar a hogares con los que la comunidad tenía algún conflicto. Soy consciente de que la intervención en el medio es inevitable, pero durante la investigación intentamos no crear desigualdades. Definimos un protocolo de convivencia, donde nos auto-prohibíamos dar dinero a las familias, introducir comida propia y no elegir nosotros dónde nos quedábamos a dormir. Las visitas al campo eran siempre avisadas a los líderes con antelación para que pudieran avisar a toda la comunidad. Se hicieron pagos puntuales a representantes comunitarios que tenían legitimidad en toda la región por realizar trabajos logísticos o específicos del proyecto. Todos los miembros de las comunidades que participaron en la investigación aceptaron que fueran ellos los representantes financiados. Por motivos de seguridad, no pudimos continuar con la investigación en una de las comunidades. Como investigadora y activista asumí la responsabilidad de decidir qué informaciones iban a ser publicadas; ya que en muchos casos teniendo el consentimiento, miembros de las comunidades daban información que en mi opinión podría ponerles en peligro.

4. Violence, Visibility and NGOs: Unraveling oil palm and sugarcane conflicts in the Polochic Valley, Guatemala

Abstract:

Over the last two decades, the expansion of oil palm and sugarcane plantations in the Polochic Valley (Guatemala) has exacerbated the historical struggle of Maya-Q'eqchi' peoples for land rights. Based on a mixed methods approach, I examine the dynamics of the conflict between 1998 and 2014, focusing on the visibility, latency, manifestation and intensity of violence and the role of NGOs in opposition to oil palm and sugarcane plantations. I show that the evolution of the conflict can be explained by changes in the strength of NGO alliances due to tensions, lack of coordination and the nature of the NGOs themselves, as well as the fear of state repression. These results allow me to discuss how violence, the role of NGOs and the dynamics of related events have influenced the visibility of the conflict associated with the expansion of oil palm and sugarcane plantations in the Polochic.

Keywords: flex-crops; extractivism; agrarian and environmental conflicts; human rights

4.1. Introduction

In recent decades, the expansion of large areas of so-called flex-crops[8], such as oil palm (*Elaeis guineensis)* and sugarcane (*Saccharum officinarum),* has led to major social and environmental change in Southeast Asia and Latin America (Borras et al 2011; FAO 2014). This expansion started in 1990 (Asia) and 2000 (Latin America) due to the intensifying demand in the Northern Hemisphere for agrofuels[9], edible oils, industrial lubricants and cosmetics in the case of oil palm. Sugarcane was similarly sought after in order to produce agrofuels, animal feed or fertilizers. Demand for both flex-crops has also been driven from emerging centers of international capital in the Southern Hemisphere, the so-called BRICS (Brazil, Russia, India, China and South Africa) and some middle-income countries (MICs) (Borras et al 2015). Forecasts suggest that by 2020 the variety and quantity of products fabricated from both crops will only continue to increase (Alonso-Fradejas et al 2016; MacKay et al 2015). Producer countries are thus facilitating the identification, quantification and provision of 'suitable' land for such crops (Borras et al 2013), under the assumption that there are marginal (unpopulated) lands which are apt for cultivation and that these flex-crops can solve manifold energy, climate, economic and financial crises (World Bank 2010).

The expansion of these two crops alone has already led to widespread and major social and environmental changes. In Latin America, they have often prevented local communities from accessing their main livelihoods as oil palm has been planted on land that communities could use to sow basic grains and native forests, which constitute their principle sources of food, water and building materials (Cardenas 2012; Alonso-Fradejas 2012). Likewise, both sugarcane and oil palm plantations have reduced soil fertility and increased water and air pollution (Goldemberg et al 2008; Martinelli and Filoso 2008). Moreover, social differentiation characterizes oil palm plantations, where the poorest smallholders, the landless and women – often overlapping categories – are oftentimes unable to reap the benefits from cultivation or employment (Alonso-Fradejas 2012; Cardenas 2012; Mingorría et al 2014).

Many of these negative impacts could be expressed as environmental[10] and/or agrarian conflicts (Dietz et al 2014; Alonso-Fradejas 2015; Gerber 2011), which may sometimes be made visible by environmental, climatic or agrarian justice movements in transnational campaigns against agrofuels, deforestation or land grabbing (Pye 2010; Brad 2015; Borras et al 2013). However, such impacts may not become visible at a national or international scale, but only at a local scale in some phases of the conflict (Marin-Burgos 2014). With visibility I refer to conflicts appearing in newspapers and being the object of public demonstrations. Conflict can also be apparently invisible (e.g. Castellanos-Navarrete and Janssen 2014) or latent as it may take the form of hidden tensions or blocked channels of expression rather than open agitation (Dahrendorf

[8] Flex-crops are *commodities* that have multiple and interchangeable commercial destinations. For example, palm oil can be sold as food, agrofuel or as an industrial product, while sugarcane can be an agrofuel or food (see Borras et al 2014).

[9] The term 'agrofuel' was coined by the international *Via Campesina* movement to avoid the use of the prefix 'bio' that refers to life and to stress that the prime materials used for fuels come from agrarian ('agro') sources (Joao Pedro Stedile, MST-La Vía Campesina 6/06/07). In this article, I use agrofuel as a synonym for biofuel.

[10] This includes conflicts known as ecological, ecological-distributive, socio-environmental or ecological-social and conflicts with environmental content.

1958). In this essay I assess visibility by considering any reference to the conflict in national and international media sources, specifically the printed press. In other cases such visibility has conditioned the "success" of struggles against oil palm plantations and the decisions to change strategies of resistance (Marin-Burgos 2014).

Recent studies have shown how the visibility and latency of flex-crop conflicts might be influenced by (1) the local population's perception of the benefit or harm caused by plantations (Castellanos-Navarrete and Jansen 2015); (2) the roles and alliances between national and international NGOs (Pye 2010; Brad 2015); (3) the intensity of the violence; and (4) whether the local population has been dispossessed or not from their land (Maher 2015; Edelman and León 2013; Alonso-Fradejas 2012; Grajales 2011). An example of a conflict that has been visibilized is the accelerated expansion of oil palm in Indonesia, where European and Indonesian environmental and agrarian movements have developed transnational campaigns from shared anti-agrofuel activism. The campaigns highlighted the loss of biodiversity, problems of climate change, dispossession of land and the violation of human rights associated with oil palm plantations (Pye 2010; Grajales 2015; Brad 2015). According to Pye (2010), the campaign anti-agrofuels has been successful in: (1) creating transnational debates on the main environmental impacts of oil palm plantations and agrofuel production; (2) forging links between Indonesian grassroots movements and transnational movements; (3) associating environmental problems with agrarian and human rights issues; and (4) including sustainability criteria on agrofuel production in the European Renewable Energy Directive (EU 2008, article 17).

Recently, studies of oil palm and sugarcane plantation-related conflicts have focused on understanding the role played by agrarian and environmental NGOs at regional (Wolford 2004), national (Brad 2014), and transnational (Pye 2010) scales; or on exploring the conflict from the perspective of local populations (Castellanos-Navarrete and Jansen 2014; Edelmán and León 2013; Alonso-Fradejas 2015). This article contributes to this body of literature by identifying the factors that have influenced the visibility of conflict generated by flex-crops in the Polochic Valley (hereinafter 'Polochic'), Guatemala. In this region, three quarters of the fertile land (more than 10,000 hectares) have been occupied by oil palm and sugarcane since 1998 and 2005 respectively (Alonso-Fradejas et al 2012; Mingorria et al 2014), resulting in recurring and state-acknowledged land conflicts (SAA 2014). However, these conflicts only became internationally known in 2011 when NGOs denounced ongoing violations of land and human rights (OACNUDH 2013).

When I talk about conflicts in this article, I refer to disputes and confrontations, visible or latent, occurring as a result of flex-crops plantations and/or their expansion. Such disputes can be over their environmental impacts, potentially resulting in changes in land tenure and resource access relations, and over labor rights and working conditions (Borras et al 2010; Marin-Burgos 2014). In the Polochic, oil palm and sugarcane plantation conflict is manifested through local communities' and NGOs' opposition to the expansion of flex-crops that are controlled by two oligarchic families present in the Polochic. The main arguments in opposition to this expansion are that the growth of flex-crops has generated water pollution, exploitative labor conditions and/or the impossibility of Q'eqchi' population to access land, as well as direct violence, understood as individual physical and physiological harm or subtle forms of coercion (WHO 1996).

By applying a variety of methods, the conflict is analyzed from a temporal (1998-2014) and multi-scale (local, national and transnational) perspective. Upon identifying the main phases of the conflict, I examine (1) the visibility and the latency of the conflict and the interactions among Q'eqchi' groups that are in opposition to flex-crops, NGOs, oligarchic families and government institutions; (2) the manifestation and intensity of the violence; (3) the roles and interrelations among local, national and transnational NGOs; and (4) NGOs' perception of the current state of the conflict and future forecasts. All these factors have influenced the evolution of the conflict and explain its multifaceted nature, echoing what has happened in other flex-crops conflicts (Marin-Burgos 2014).

4.2. The Polochic Valley: sugarcane and oil palm expansion

The Polochic Valley is located in northeastern Guatemala, in the departments of Alta Verapaz and Izabal (Figure 1). This agrarian frontier was officially reshaped in 1990, when two protected areas were established: the Sierra de las Minas Reserve (195,000 hectares) and the Sierra de Santa Cruz (72,000 hectares). The protected areas coexist with indigenous cultivators, the mining industry, traditional coffee estates and cattle ranchers, and more recently sugarcane and oil palm plantations. Eighty-nine per cent of the population is Maya-Q'eqchi' and Poqomchi, found across 220 communities or in the towns of Tamahú, Tucurú, La Tinta, Senahú, Panzós and El Estor. The majority of indigenous inhabitants are landless or near-landless living from swidden (slash and burn) agriculture and complementing their subsistence-based livelihoods with cash-crop production or as seasonal workers (Alonso-Fradejas 2012).

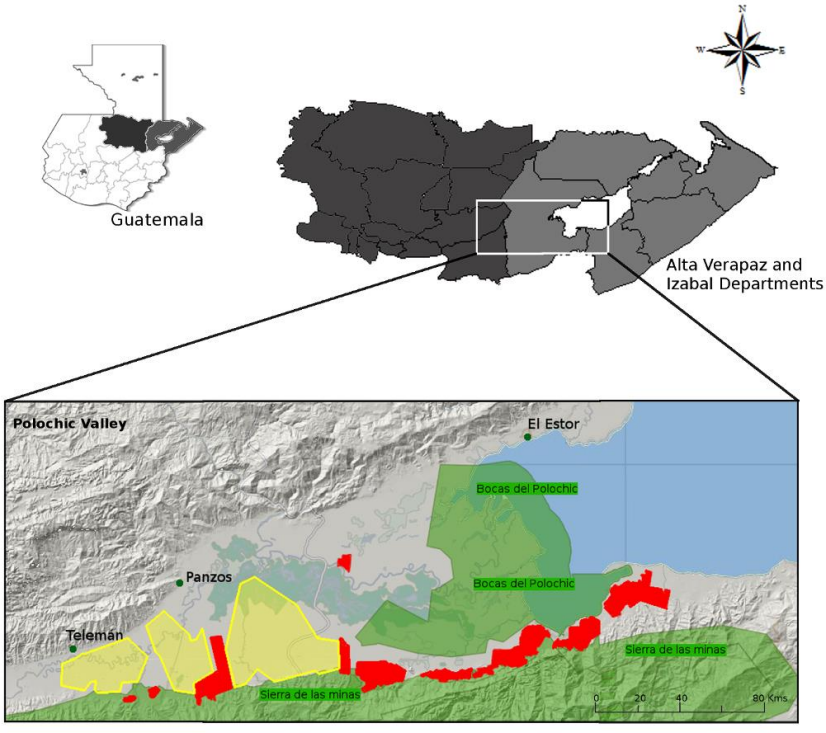

Figura 4.1 Case study area: The Polochic Valley Mingorría et al (2014). The red area represents the oil palm plantations, the yellow area represents the sugar cane plantations and the green area demarcates the *Sierra de las Minas* and *Bocas del Polochic* protected areas

According to the Secretary of Agrarian Affairs (SAA), most recorded conflicts in the Polochic are due to "land occupations", where private ownership is "not respected" by indigenous-peasant communities (SAA 2010). However, for those supporting the Polochic's indigenous-peasant communities, the "occupations" are not the cause of the conflict, but the consequence (Hurtado 2008, Granovsky-Larsen 2013). They are the main strategy to access land for subsistence purposes given the unequal distribution of arable land and the historical system of labor exploitation characterizing the history of the Polochic (Castellanos 1996, Van Leeuwen 2010, Hurtado 2008).

The chronicles of land conflict in the Polochic date back to the 16th century, when the Spanish Catholic Church controlled land and local populations through "Indian Villages" [11] (Hurtado 2008). The privatization of land that started in the 19th century has continued until present, as land has been (re)concentrated to ease the expansion of oil palm and sugarcane plantations (Hurtado 2014). However, part of the Maya-Q'eqchi' people have responded to these processes by fleeing wage labor controls, violence and the plunder of their lands, migrating deeper into Guatemala in search of land to reproduce their livelihoods (Grandia 2006). Most of the Polochic is currently under the control of two oligarchic families, and even the communities that fled to forested areas are now in conflict with company and/or government-controlled protected areas, hydroelectric dams and mining projects (Hurtado 2014).

It was after the liberal reforms of the late 19th century that the state granted most of the land in the Polochic as private estates to foreign families and companies, in order to develop an export-oriented economy based on cattle, cotton, bananas and coffee plantations (Hurtado 2008; Grandia 2006). The Maya-Q'eqchi' population that had previously lived in "Indian Villages" was forced to migrate or work on the estates as *mozos-colonos* or bonded laborers (Hurtado 2008). The patron provided a small piece of land on the estates for bonded laborers to grow their own food and, despite poor wages, forced families to purchase food from his own over-priced shop. Families were thus kept on estates under a flexible debt system (Piedrasanta 1977).

The period of greatest violence and visibility on a transnational scale occurred during the 36 years of the Guatemalan civil war and concluded with the signing of the Peace Accords in 1996 (Stanford 2009, Grandin 2004). One of the most violent events happened in Panzós in 1978, when the army massacred fifty-three Maya-Q'eqchi' peasants demanding access to land (CEH 1999). Thousands of people fled from the Polochic during the civil war (Grandia 2006). In the early 2000s the coffee crisis ended the *mozos-colonos* system (Wagner 2001), breaking the relations between patrons and families of bonded laborers. In the wake of this rupture, some were expelled from estates without being paid any labor benefits and became landless while others stayed on the land as 'squatters' or became seasonal workers (Hurtado 2008, Grandia 2006).

Meanwhile, in 1998, the descendants of the German family Maegli set up an oil processing plant. And in 2005 a sugarcane mill called *Chabil Utz' aj* ('good cane' in the Q'eqchi' language) owned by the Widdman family was moved from the Southern Pacific region to the Polochic thanks to a two million dollar loan from the Central American Bank for Economic Integration (BCIE). In the Polochic, these two oligarchic

[11] The Spanish conquest of the Q'eqchi' region (Alta Verapaz) was, relatively speaking, more peaceful than in the rest of Guatemala (Secaria 1992). However, during the conquest the Spanish church gathered the indigenous population in "Indian Villages" to appropriate their lands and more easily charge them taxes on behalf of the Spanish Crown.

families currently control about 5,000 hectares of oil palm and 8,500 hectares of sugarcane plantations, making up one-third of the valley's fertile land (Alonso-Fradejas 2012). These families were able to expand flex-crop plantations throughout the territory either by purchasing land from cattle ranchers or by renting land for five years.

Part of the Maya-Q'eqchi' population in the Polochic, some landless families, former bonded laborers, plantation workers and households with insecure land tenure are struggling to defend their territory against the expansion of flex-crops through a variety of collective and individual strategies (Alonso-Fradejas 2015). Consequently, in the past two decades, the agrarian conflict in the Polochic has continued to increase, driven by land dispute between the families that own the oil palm and sugarcane production and groups who claim land to sow basic grain (Hurtado 2014; Migorría et al 2014).

Over thirty per cent of the agrarian conflicts registered in Guatemala were located in the Polochic (SAA 2010), but these were 'invisible' on a national and international scale since the signing of the Peace Accords (1996) until March 2011. The latter was the year when the state violently evicted the Maya-Q'eqchi' communities 'occupying' some estates in the Polochic, an action that was highly mediatized (OACNUDH 2013; UDEFEGUA 2011; GIDHS 2013). Two years later, after national and international demonstrations, some NGOs depicted the government's handover of land (partially outside of the Polochic) to some of the previously evicted families as the consequence of successful social mobilization and resistance (Velazquez 2014). Subsequently, all international and some national NGOs gave up the struggle against flex-crops in the Polochic, although violent conflict and crops' expansion continued and the government had not dealt with the underlying roots of the problem, i.e. an unequal land distribution context biased in favor of a few oligarchic families and their agribusiness model. This paper explores these contradictory readings of the conflict's evolution, and argues that there were multiple factors affecting the exit of NGOs and the seeming "success" of the case. I also discuss how the structural violence, the role of the state, the "nature" of NGOs, as well as the different strategies employed by NGOs have contributed to weaken the resistance against flex-crops and to reveal or silence the conflict.

4.3. Methodological and analytical strategy

Data collection involved participant observation, semi-structured interviews, discourse analysis and content analysis of the printed press and video documentaries (Figure 2), with these methods triangulated to provide as complete a picture as possible of the conflict period. The analysis begins with the arrival of the oil palm and sugarcane plantations in 1998 and 2005, respectively, in the municipalities of Panzós and El Estor, and the research concludes at the end of 2014 when land was finally handed over to the evicted families.

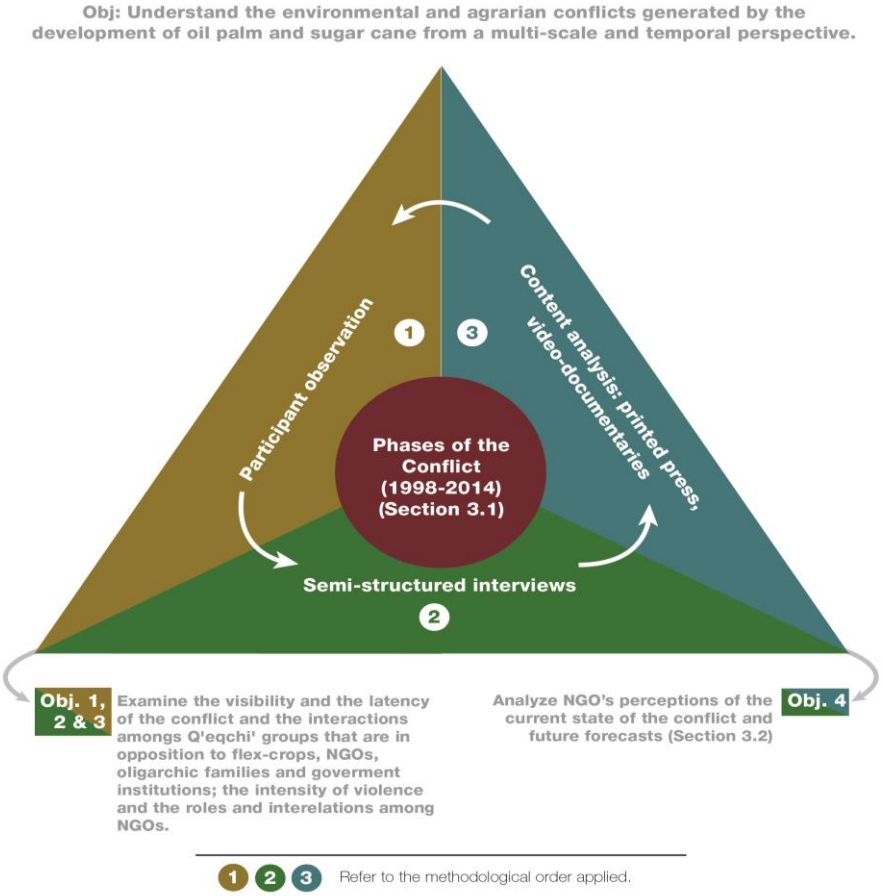

Figura 4.2 Methodological strategy and research objectives

4.3.1. Participant observation

From my observations as a researcher and activist during three periods of fieldwork in the Polochic (January 2009-May 2011; January 2012; August 2014) I identified and interviewed NGOs involved in the conflict that are opposed to the expansion of flex-crops. I pinpointed the events that caused a change in the dynamic of the conflict in terms of its visibility/latency, the intensity of the violence and NGOs' roles and alliances. I evaluated the violence from very low (isolated evictions), to low (injuries, shootings and isolated evictions), high (injuries, shootings, kidnappings, violent and constant evictions) or very high (killings, injuries and shootings concentrated over days). I identified eight NGO roles and four types of alliances (Tabla 4.1). Subsequently, I analyzed the general positions of Maya-Q'eqchi' community members in relation to the conflict, focusing on those members who participated in national meetings organized by NGOs to define strategies against flex-crops.

During the first period of fieldwork, I attended meetings with NGOs and indigenous representatives, where strategies to resist the spread of oil palm and sugarcane plantations in Guatemala were discussed[12]. At the same time, I lived with the Maya-

[12] This activity included three national (14 communities represented from the Polochic) and three regional (44 communities represented) meetings.

Q'eqchi' population throughout two active participant research projects[13] in 2009 and 2011 and observed two land occupations in 2010 and the evictions of 2011. During these phases, I analyzed the information obtained from meeting minutes. The occupations and evictions were also recorded in two video-documentaries[14] where I was part of the executive production, research and interview team. From this experience and the material it generated, I analyzed the arguments against the plantations by Maya-Q'eqchi' people who attended the meetings, as well as the oligarchic families' reasons for evicting them.

Tabla 4.1 Definitions of the main roles attached to NGOs during the Polochic conflict

Role	Definition
Counterpart/partner	Serve as the voice and image that responds to the agenda and requirements of another organization that has the resources
Denunciation	Obtain information about the origin of the conflict and hold press conferences, issue press releases or transfer information to other organizations that influence international agencies. Present the information to international agencies
Facilitation	Support collective strategy-defining processes: provide information, coordinate joint events, fund meetings, offer a collective identity to the peasantry
Mobilization of resources	Fundraise from local and foreign sources to organize major campaigns and large-scale mobilizations
Negotiation with the State	Present arguments to state institutions and discuss and agree to measures
Protest	Organize and coordinate protests such as demonstrations and strikes
Research	Conduct studies of the causes of the conflict
Support	Support communities with their everyday needs: legal, organizational and technical guidance
Type of alliances	
Coalition	Four or more networked organizations
Strong alliances	Less than four networked organizations and a trust relationship
Weak alliances	Less than four networked organizations but lack of trust relationship

[13] 'Desarrollo de un marco de evaluación analítico-participativo de las dinámicas socioambientales y de la calidad de vida de las comunidades campesinas del Valle del río Polochic, Guatemala'. IDEAR-CONGCOOP, 2009-2010. Funded by ACCD. 'Mecanismo de respuesta rápida frente a la fuerte subida de los precios de los productos alimenticios en los países en desarrollo'. CUC and FGT, 2010-2011. Funded by Oikos-EU.

[14] The video-documentaries are titled: The evictions in the Polochic Valley 2011 and Aj Ral choch (Sons of the earth), 2012 and were co-produced by IDEAR-CONGCOOP and Caracolproducciones: (see http://caracolproductions.net/).

4.3.2. Semi-structured interviews

In 2014, I conducted a total of 17 interviews with representatives of 11 NGOs[15] (Annex). As there is a considerable confusion in defining NGOs (Munck 1992), I followed Clarck's (1991) definition and considered them as organizations that give support to local communities and act as advocacy groups. I categorized the NGOs as *local*, *national* or *international (and/or donors)*, according to their most common operational governance space; and as human rights, development, peasant and research and advocacy NGOs depending on their focus and objectives (section 4.8 Annex). I also identified roles and types of alliances assigned to each NGO in each stage of the conflict.

These interviews served to: (1) validate the phases defined during participant observation; (2) analyze the roles of and interrelations between NGOs; and 3) examine the organizations' perceptions of the state of the conflict in the final stage of analysis (2014).

My different roles during the research process – as an "external" researcher, part of the movement, a human rights evaluator and a scholar-activist – and having been present during violent evictions in March 2011 allowed me to gain the trust of the majority of the interviewees and to show my commitment to what was happening on the ground. During the interviews I explained that I have continued researching the conflict in the Polochic for my personal interest, in order to contribute to activism in Guatemala. These elements helped me gather responses that were not accommodating and polite but diverse and critical.

4.3.3. Content analysis

I analyzed the content of three types of documents: written press, human right reports, and the two video-documentaries I was involved in producing. I used these three sources of information because I could not hold face-to-face interviews with all of the stakeholders in the conflict due to the multiplicity of roles I had during my time in Guatemala, which were not aligned with the interests and rationale of the agribusiness families. The analyses were used to (1) validate the defined phases of the conflict through changes in its visibility; (2) identify the phases of greater and lesser visibility of the conflict through the number of news stories published; and (3) describe the changes in the arguments and stances of the oligarchic families and state institutions in relation to the causes of the conflict.

On the one hand, I compiled all news in Guatemala's main newspapers (*Prensa Libre, El Periódico, Diario de Centro América* and *Plaza Pública*) from 1998 to 2014 and selected those that made reference to the conflict. I also included news that appeared from 2005 to 2014 found with the *Google* search term 'Valle del Polochic' resulting in a total of 160 articles. To analyze this material, I counted the number of news stories and opinion articles in each phase, conducted a lexicometrical analysis using the *Iramuteq* program to identify the predominant content published during the phases of the conflict and, additionally, analyzed the arguments and positions regarding the causes of the conflict mobilized by all actors in each phase of the conflict. Finally, I reviewed the content of 10 reports on human rights violations and press releases by NGOs that were

[15] I included a variety of NGOs that defined themselves as peasant or human right organizations, foundations, cooperatives or research institutes.

published between 2000 and 2014. The content analysis involved identifying the strategies and denunciations made by the NGOs over time.

4.4. The evolution of the conflict

The visibility of the conflict from the arrival of oil palm and sugarcane plantations until 2014 has changed in relation to: the intensity of the violence and the NGOs' strategies, roles and alliances. Taking these criteria into consideration, I identified three phases of the conflict: 1) the *silenced phase*, from the arrival of the plantations in 1998 until the violent eviction of 12 Maya-Q'eqchi' communities in 2011; 2) *the revealed phase*, from the evictions until a year later, in March 2012; and 3) *the silencing phase*, which began in March 2012 with the Indigenous, Peasant and Popular March and ended in 2014 with the government's handover of land to less than a fifth of the evicted families (Table 5.2).

Tabla 4.2. Characterization of the phases of the conflict: Intensity of the conflict, narratives of new stories, roles and alliances of NGOs

	Silenced (1998-2011)		Revealed (2011-2012)	Silencing (2012-2014)	
Visibility	Latent		Visible	Visible	Latent
Scale of visibility (number of news items)	Regional (2)		National and transnational (59)	National and transnational (29)	Regional (16)
Intensity of violence	High		Very high	High	
Iramuteq cluster analysis (% news items)	-	-	Class 3 (49.2%): Eviction, Police, peasant death, rights	Class 2 (27.9%): Rural development, demands, land Class 1(22.9%): Struggle, desire to work	-
Type of NGOs by operational governance scale (number of organizations)	Local (1) National (6) Transnational (1)		Local (1) National (5) Transnational (3)	Local (1) National (4) Transnational (1)	Local (1) National (3) Transnational (1)
Type of organization by focus (organizations' acronyms)	Participation COCAD Peasant UVOC, CUC Psychosocial ECAP Research CONGCOOP Action Aid, El Observador Fostering Peasant Economies CONGCOOP, FGT		Participation COCAD Peasant UVOC, CUC Psychosocial ECAP Research CONGCOOP Action Aid, Fostering Peasant Economies CONGCOOP, FGT Human Rights HRC, Right Action,	Participation COCAD Peasant UVOC, CUC Research CONGCOOP Action Aid, Fostering Peasant Economies CONGCOOP, FGT	Participation COCAD Peasant UVOC, CUC Research Action Aid, Fostering Peasant Economies FGT

	Silenced (1998-2011)		Revealed (2011-2012)	Silencing (2012-2014)	
Roles (organizations' acronyms)	**Support** (COCAD, UVOC, ECAP, CUC, CONGCOOP, FGT) **Research** (CONGCOOP,Action Aid)	**Support** (UVOC) **Facilitation** (COCAD, ECAP,CUC, CONGCOOP, El Observador, FGT, Action Aid) **Negotiation** (CUC, FGT, Action Aid)	**Support** (CONCAD, UVOC) **Denunciation** (ECAP, CUC, CONGCOOP, FGT,HRC, Right Action, Action Aid)	**Support** (CONCAD, UVOC) **Protest** (CUC, FGT) **Negotiation** (CUC, CONGCOOP, FGT) **Mobilization of Resources** (Intermon Oxfam)	**Support** (CONCAD, UVOC, FGT) **Research** (Action Aid) **Negotiation** (CUC) **Mobilization of Resources** (Intemon Oxfam) **Counterpart** (CUC)
Alliances (number of organizations)	-	Strong coalition (7)	Strong coalition (5) and weak alliances ((5) and (2))	Weak alliances ((1) and (3))	Weak alliance ((1) and (1)) Weak alliance ((1) and (1))

	The principal governance scale is regional
	The principal governance scale is national
	The principal governance is international

4.4.1. Silenced conflict (1998-2011)

Oil palm plantation expansion in the Polochic began in silence in 1998. While conflicts were generated by the expansion (Hurtado 2008), they were not framed as such in the printed press[16]. However, the expansion of sugarcane from 2005 was reported in two news articles as an opportunity to develop the local economy (see Dürr 2016 for a critical perspective). Oil palm and sugarcane underwent their greatest expansion during this phase, coming to occupy about 10,000 hectares of the Polochic (Alonso-Fradejas 2012, Hurtado 2008). Peasant NGOs in the region, promoted and supported the collective organization of the former bonded laborers to demand recognition of their land and labor rights, in some cases demanding monetary or land compensation, and in others settlements for their years of unpaid labor on estates (Granovsky-Larsen 2013). From 2000 these peasant NGOs gave their support to the land occupations in Tamahú, Tucurú and Senhau and promoted a unified demand for the 'recovery of the land', organized among both the 'landless' population and the former bonded laborers (Hurtado 2008).

National and local NGOs (FGT in 1998, ECAP in 2000 and CONCAD in 2004), appeared in the region to provide psychosocial, technical and organizational support to the Maya-Q'eqchi' communities. In 2005 CONGCOOP started working in the region, while other NGOs connected their work to the spread of oil palm and sugarcane (section 4.8 Annex). This date coincides with the move of the sugarcane mill from the Southern Pacific region to the Polochic (Figure 3).

[16] There are many possible reasons why the media did not report land grabbing conflicts and why there were no mobilizations. Although conflict related to land was still present, I think that the media and NGOs were focused on the discussion and promotion of 1996 Peace Accords. Land issues and indigenous rights were approached from this supposedly "post conflict phase". Therefore, NGOs somehow left these conflicts behind and the media did not want to show a possible failure of the Peace Accords.

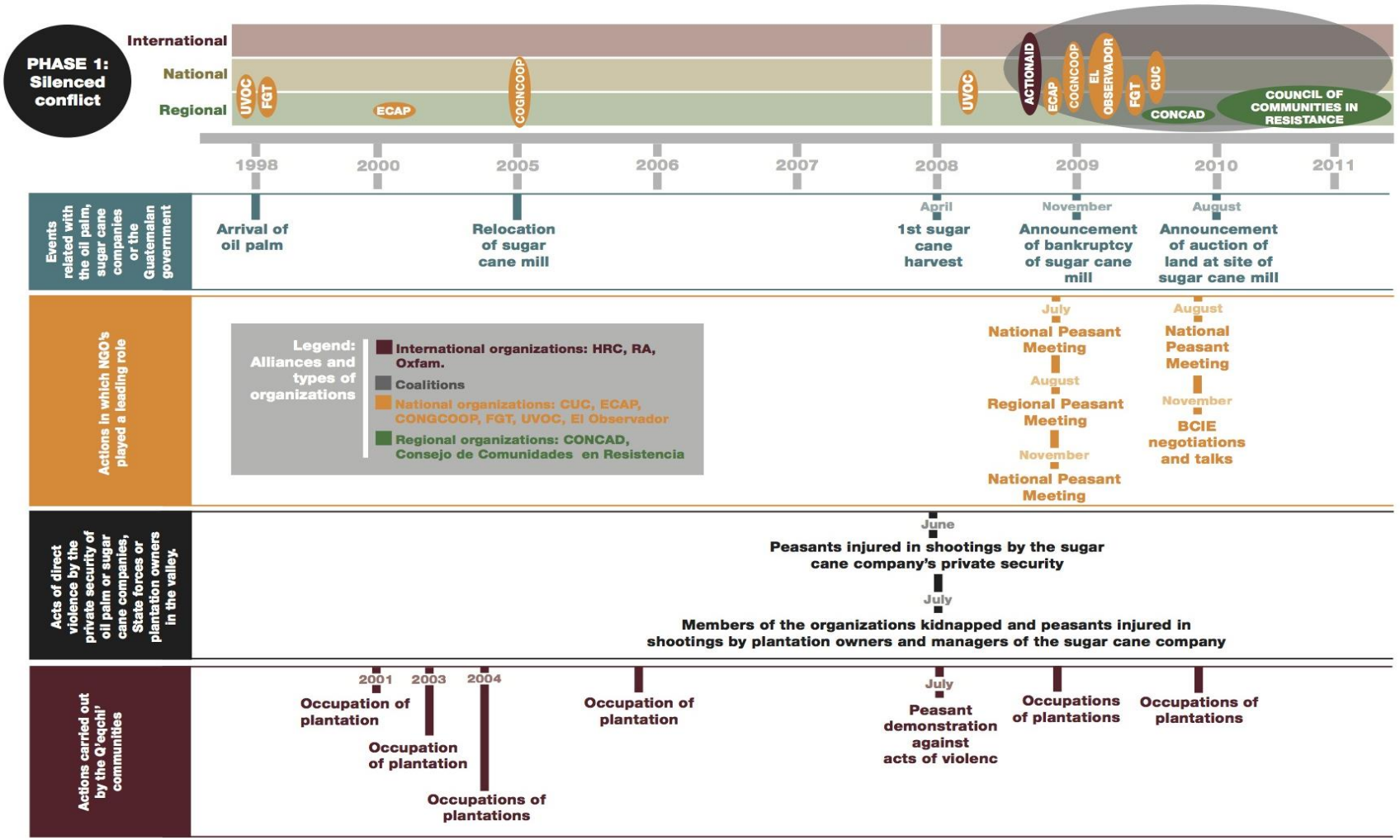

Figura 4.3 Conflict dynamics during the Silenced phase: NGOs alliances and main events

In 2008, after generating an atmosphere of trust, these NGOs discussed the causes and elements of the conflict in the region. During the interviews, they highlighted the psychosocial problems associated with the civil war (Interview#1); the communities' long and unresolved demands for access to land (Interview#10); and the socio-economic impacts of the rapid expansion of oil palm and sugarcane plantations and processing plants due to the current national policies that favor business groups and the global economic dynamics of flex-crops' expansion (Alonso-Fradejas 2008, Solano and Solís 2010, Mingorria & Gamboa 2010).

In 2009, the seven NGOs mentioned in the *silenced phase* formed a coalition to stop the advance of oil palm and sugarcane plantations. The coalition included a new research-based NGO, *El Observador* (Interview#12) (Figure 3). The formation of this coalition meant that the roles of most NGOs shifted from one of community support to facilitating horizontal interaction and joint resistance. To do this, they arranged three national peasant meetings in July 2009, November 2009 and August 2010 as well as two regional meetings in the Polochic, in August and September 2009 (Figure 3). The meetings aimed to exchange information between NGOs and Maya-Q'eqchi' communities, to analyze their different positions in relation to flex-crops and to define joint strategies against the expansion of monocultures.

During these meetings, the Maya-Q'eqchi' communities also expressed their opposition to monocultures because of the socio-economic, cultural and environmental damage they generated. They hence defined lines of action aimed at defending their territory and reinforcing the internal cohesion and networks between Maya-Q'eqchi' communities. To do this, they formed the Council of Q'eqchi' Communities in Resistance, which in 2010 decided to organize the occupation of ten sugarcane plantations in the Polochic. The objective of such occupation was to put pressure on the government to buy the 37 estates owned by the Widdman family, which at that time were being auctioned off by Guatemala's Industrial National Bank (BCIE) as a result of the sugarcane mill going bankrupt and not fulfilling credit obligations (ElPeriódico August 6, 2010, Interview#12).

According to one Maya-Q'eqchi' I spoke with, the occupations also happened through necessity, in order to plant maize, and as a form of resistance. He felt that *"sowing is the struggle and the motive to keep struggling*" (Maya-Q'eqchi' leader in occupied community, 2010). Likewise, during the ceremonies conducted at the time of the occupations, the spiritual value of maize and land for the Maya-Q'eqchi' compared to the negligent value of sugarcane was starkly apparent:

'*All food united in our home makes us who we are, but our body is maize. Sugarcane is not of us, it is not of our sowing; we harvest beans, maize and chili. Corncobs – the black, the yellow – are our body*' (Occupied community spiritual guide, 2010).

However, the new wave of occupations was met with a violent response from the sugarcane company's private security forces (OACNUDH 2013). Given this intensification of the conflict over access to land, the government organized several formal talks involving state institutions, business people, community representatives and some national NGOs (Interview#5). Simultaneously, these NGOs negotiated with the government and the BCIE so that the state would buy the recently occupied land (Interview#12). Despite the high intensity of the violence, the conflict was not reported

in the media; the protests, negotiations, land occupations and the subsequent repression were silenced on a national and international scale (Tabla 4.2).

4.4.2. Revealed conflict (2011-2012)

In this phase the Polochic conflict became known nationally and internationally through news articles and opinion pieces published in national and international media (Tabla 4.2), including a documentary about the evictions broadcasted on national television. This phase covers both the violent conflict and post-eviction phases, the former involving the eviction of 800 families from 12 communities in the Polochic between 15-19 March 2011. The post-eviction phase ran until March 2012 (Figura 4.4).

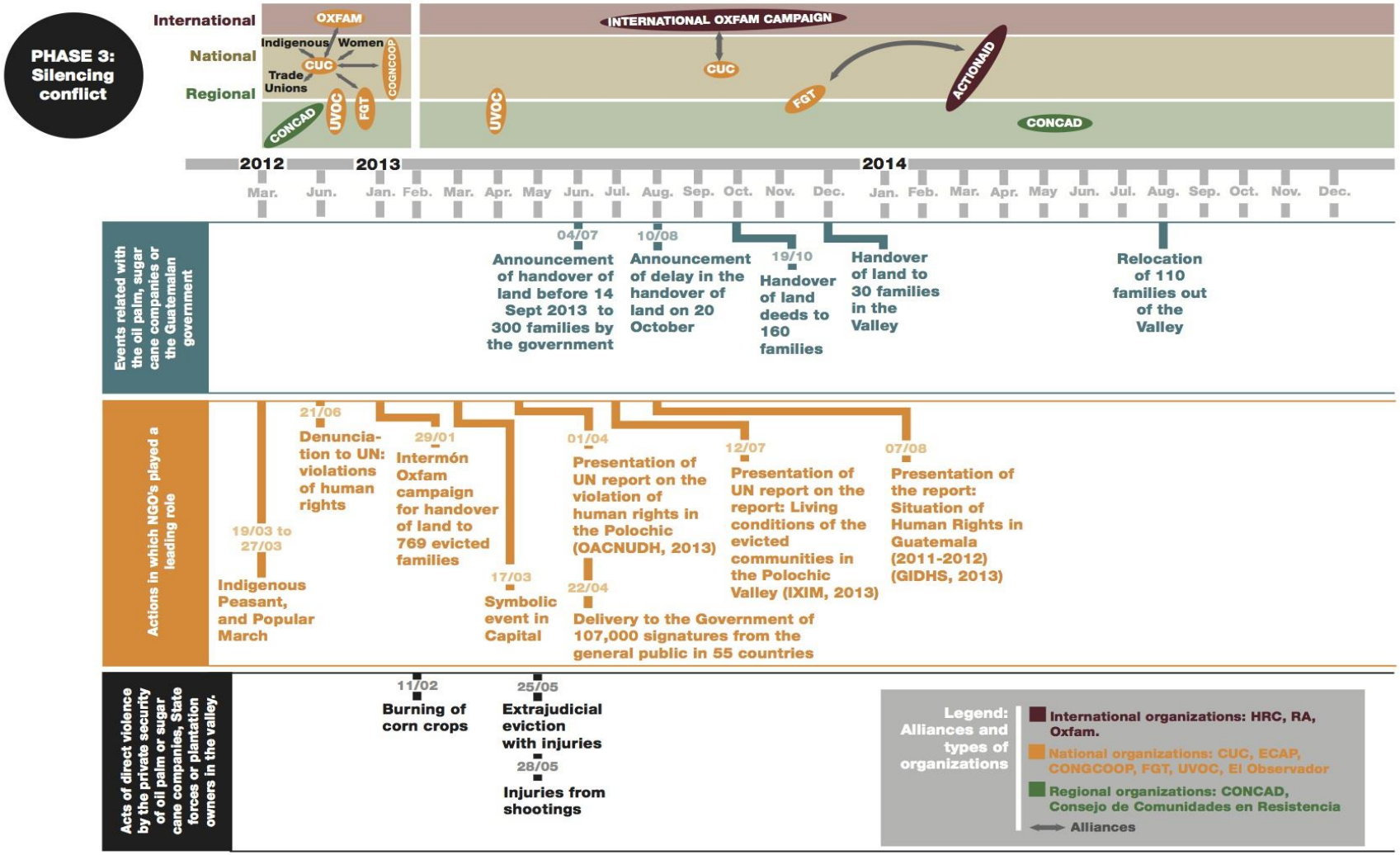

Figura 4.4 Conflict dynamics during the Revealed phase: NGOs alliances and main events

For the first time in Guatemala, 14 estates were included in the same court-issued eviction order (of which, 12 were executed). The Widdman family oversaw the evictions, accompanied by employees of the Public Ministry, the state agency in charge of executing court orders, and by about 1000 members of military contingents and the national police (special operations commandos). The oligarchic families pressured the military to burn crops, to decide on the eviction's exact date and time to avoid being observed by NGO members, and compelled the Ministry of Public Affairs to follow the judge's orders. These power relations were explicitly described in statements by the Widdman family during the eviction in the 2011 documentary titled "Polochic evictions": '*The Ministry said to me: well, this eviction thing is very difficult, and I told him: look, Minister, for God's sake, execute the order for seizure issued by the competent judge! If not, you are obstructing the law.'*

Around 800 families were violently evicted, the National Civil Police killed a peasant, dozens of people were hurt and the homes and 1,800 hectares of basic grains were burned or destroyed (OACNUDH 2013, UDEFEGUA 2011). Crop loss meant more than material damage: it was also spiritually and culturally painful. As one Maya Q'eqchi' woman told me in an interview, "*it is as if my son was dying, the land is no longer alive"*. Moreover, for some of the population it was a throwback to the violence of the Civil War, where the military used the burning of homes and crops as a strategy to prevent the population from returning to the villages that had been hit (Interview#12, 9).

The presence of NGO members in the area meant that news of the evictions reached the national and international press; the community otherwise did not have the authority or contacts to ensure media coverage of the violence enacted by the Widdman family and the government. In turn, these NGOs held press conferences and publicly denounced the evictions, asking at the very least that the evictions be carried out non-violently, leaving houses intact and allowing people to harvest their crops. These demands, however, were unaddressed.

In the wake of these violent events, five of the NGOs in the coalition remained allied and once again changed their role to protest about the suffering of the families in the Polochic. The coalition condemned the violence, the excessive use of force by the army and the national police and the violation of the right to housing, to food and to indigenous culture at national and international forums, the latter including the Inter-American Commission on Human Rights (IACHR) [17] (Figure 4).

The Widdman family, however, accused the Maya-Q'eqchi' population of violating the right to private land ownership and the NGOs of subverting the rule of law. During the evictions, that family proclaimed, "*laws should be observed! Rule of law!"* (Polochic evictions video-documentary 2011), while the government accused NGOs of being "*radicals that have systematically implemented illegal measures […] that have affected*

[17] The IACHR: the main and autonomous agency of the Organization of American States (OAS) that is responsible for promoting and protecting human rights in the Americas. A summary of the Precautionary Measures can be found at www.cidh.org with Ref: 14 comunidades indígenas Q'echi del Municipio de Panzos MC-121-11, Guatemala. The petitioning NGOs were: the CUC, FGT, ECAP, Human Rights Commission, Rights Action and ULAM (Women's Union).

the rights of other Guatemalans and put governability and the rule of law at great risk" (Presidential announcement 17/03/2015).

In June 2011, the IACHR requested Guatemala to take the necessary precautionary measures[18] to guarantee the life, integrity, food and homes of the twelve evicted communities and to investigate the killing of one peasant during the evictions (OACNUDH 2013). In spite of such request, violence continued and three more peasants were killed a few months later (UDEFEGUA 2011). Some Maya-Q'eqchi' families tried to immediately occupy again the evicted lands, and the sugarcane company's private security alongside the police responded again with violent evictions (GIDHS 2013). Following the IACHR issue of the precautionary measures, the number of NGOs in the coalition fell, and only three development and national NGOs continued to condemn the events in alliance with international human rights NGOs. However, these relations also weakened (Figure 4).

4.4.3. Silencing conflict (2012-2014)

The conflict initially remained visible on a national and transnational scale, with public debate about the history of agrarian conflict throughout the country from March 2012-February 2013. The content of the news items related the evictions in the Polochic to the violence of the Guatemalan civil war and the historic demands of the peasantry such as land access, agrarian debt forgiveness, a law on Integrated Rural Development, the moratorium on mining licenses and territorial demilitarization (Table 5.2). However from February 2013-August 2014, the conflict started to once again become silenced, fewer stories were published in the national press and the content only referred to families' relocation (Table 5.2). As noted earlier, the relocation of less than a fifth of the evicted families outside the Polochic led to changes in the visibility of the conflict and the roles played by the NGOs (Table 5.2).

[18] Precautionary measures: these are measures recommended to states by the IACHR when situations arise where irreparable damage could be caused to people. These include situations of conflict, violence or persecution of the defenders of human rights which if not ceased could lead to an increase in the number of deaths.

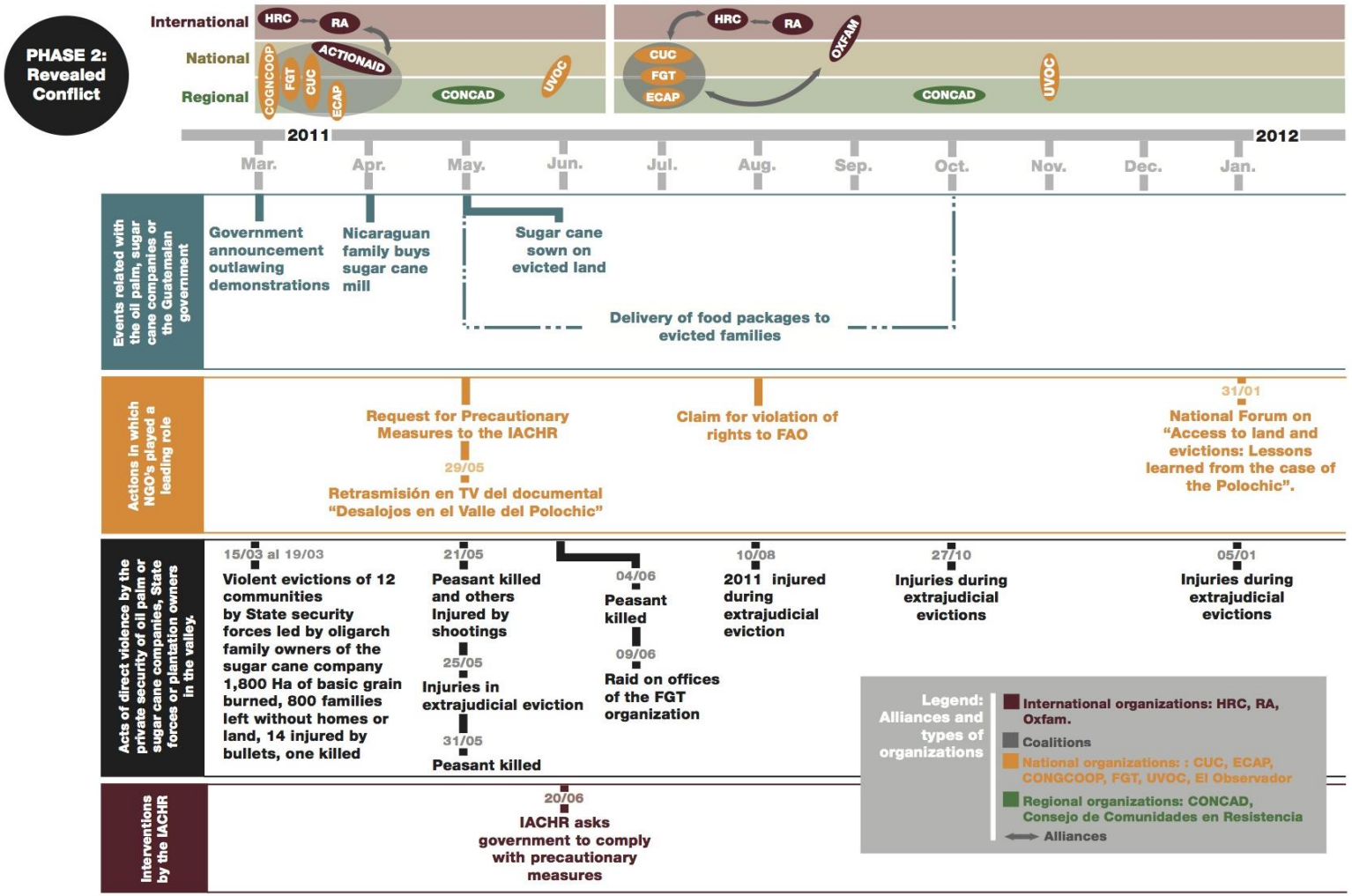

Figura 4.5 Conflict dynamics during the Silencing phase: NGOs alliances and main events

This visibility from March 2012-February 2013 was largely due to the 200-kilometer (from Cobán municipality in Alta Verapaz department, to Guatemala City) Indigenous, Peasant and Popular March in early 2012, involving NGOs, trade unions, community representatives and women's organizations. The launch of an international campaign in favor of the evicted families (*Crece-Vamos al grano*), organized by Intermón Oxfam in February 2013, also increased the visibility of the conflict (Figure 5). These forms of protest emerged in response to the government's non-compliance with the precautionary measures; i.e., the violence continued, land was not provided, and not enough provisions were given to the evicted families (Interview#16, 4). The march was led by the CUC, and the FGT, CONGCOOP and representatives of the evicted communities also took part. After the demonstration, the Intermón Oxfam campaign managed to get the conflict onto the public agenda and put pressure on the government by revealing the social and financial plight of the evicted families through protest actions and delivering a petition with over 100,000 signatures to the government demanding land for the families. This campaign was coordinated in Guatemala exclusively by the CUC, preventing the participation of other national and international NGOs. According to Oxfam, an alliance with just one single NGO made the campaign easier to manage. However, at the same time, this led to the breakdown of alliances with other NGOs, and caused the CUC to shift from being a protest group to solely focus on the campaign agenda (Interview#17) (Figure 5).

Following the announcement of the land handover in June 2013, the conflict's apparent outcome was Janus-faced. On the one hand, success was touted in CUC, CONGCOOP and Intermón Oxfam's reports, social networks and websites [19]. These sources highlighted various achievements: land allocation for 140 families (Velazquez 2014); raising awareness of the global problem of land grabbing through the case of the Polochic; and achieving the international campaign targets. For example, the CUC celebrated the second handover of land with statements on its social networks such as "today our tears are the tears of joy: Victory for the violently evicted families and victory for national and international organizations!" (Facebook CUC 10th August 2014).

On the other hand, during my fieldwork in August 2014 (during the second land reallocation process), I realized that all NGOs also perceived the outcomes partially as a failure. The structural problems regarding land access, the advancement of plantations and violence towards the communities had not been resolved (Interview#4, 11, 8). The conflict was delocalized, with 110 families relocated away from the Polochic to another highly conflictive area of the country (Interview#2) without meeting minimal subsistence conditions.

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https://oxfamintermon.s3.amazonaws.com/sites/default/files/documentos/files/memoriaOxfamIntermon2014cas_0.pdf; https://www.facebook.com/Comité-de-Unidad-Campesina-CUC

Moreover, resistance in the Polochic had been weakened because NGOs fled the region and their alliances with Maya-Q'eqchi' communities were debilitated. According to human rights NGOs, the weakening of such alliances came about because of the difficulties of working in a human rights framework in contexts of systematic violence: "*we could spend at least 14 years denouncing the state for not recognizing indigenous rights, it is important to understand and to know how to do it*" (Interview#8). The effort required to coordinate very different kinds of NGOs was also repeated, as was the lack of time, financial resources and fatigue: "*It was difficult to coordinate meetings and define actions, we were not all working along the same lines and information was not shared because of distrust*" (Interview#10, Inverview#9). The direct alliances between Maya-Q'eqchi' communities and national NGOs also weakened because of increasing insecurity in the Polochic. "*The situation became unsustainable, we received a lot of threats, you could tell that you were being followed … it was not worth risking my life*" (Interview#1). So three NGOs continued to work separately in the region, providing technical and organizational support to the communities, similar to the start of the silenced phase.

4.4.4. Future perspectives of the Polochic conflict

Overall, after analyzing these three phases of the conflict in the Polochic from 1998 to 2014, it is evident that the government did not comply with its commitment to distribute land among indigenous communities or halt the advancement of sugarcane and oil palm plantations. This explains why most NGOs believed that the situation in the Polochic would only get worse after 2014, with the conflict intensifying and resistance being repressed. This is because the BCIE restructured the Widdman family's outstanding debt, while an oligarchic family from Nicaragua bought 80 per cent of the company's shares and further invested 40 million dollars in the sugarcane expansion project (Interview#3).

The interviews, however, showed that there is no consensus within or among the NGOs as to how the conflict in the Polochic should be approached from now on. Some international NGOs believe that the work should consist of putting pressure on the government through institutions such as the World Bank and involving other countries' public opinion (Interview#17). Some national NGOs criticize other national NGOs that have defined their strategies according to the agendas of international NGO donors, and argue that the strategy should now consist in regionalizing the struggle and to work locally, whereby the communities define their own resistance strategies and the NGOs support them horizontally (Interview#8). The overarching aim would be to connect the territory with other struggles, such as the opposition to extractive projects like mines and major hydroelectric plants.

Both proposals, campaigning from abroad and regionalizing resistance, are based on the development of alliances. However, while some national NGOs vouch for alliances between international NGOs and their local partners, others aim to coordinate nationally through a United Peasant Front and to develop local alliances through community-based and grassroots organization. In all cases, nonetheless, NGOs recognize the need to "*overcome the broken ties between organizations*" (Interview#10).

4.5. Discussion

The results section analyzed the visibility of the conflict in the Polochic from a multi-scale and temporal approach. They showed how the interrelations between violence/threat, the role of the state, and the type, strategies and alliances of NGOs have

influenced the visibility and dynamic of the conflict at different scales. The agrarian and human rights conflict was visible at all spatial scales (regional, national and international); the environmental conflict was only visible at peasant meetings.

4.5.1. The role of violence and fear in the Polochic conflict

The expansion of flex-crops in the Polochic has exacerbated the historical land dispute between the Maya-Q'eqchi' communities and the oligarchic families. These communities have struggled for more than 500 years to recover the land from which they had been dispossessed, from the colonial era through to liberal reforms and the development of the agro-export model of cotton, banana, beef and coffee farming (Hurtado 2008; Grandia 2009; Castellanos 1996), until the spread of oil palm and sugarcane plantations in the present day. In this new phase of dispossession, the demand for land has been visible through land occupations in the *silenced phase*, and protests and campaigns on a national and international scale during the *revealed* and *silencing phases*.

However, the high level of violence has been the main factor affecting the visibility of the conflict, focusing the debate and the struggle on land access issues and masking the communities' arguments in relation to the environmental and cultural impacts of flex-crop plantations. It is important to underline that the Polochic is not an isolated case: one of the main historical drivers of rural violence throughout Latin America is the unequal distribution of land (Kay 2001). The latter is also explicitly related to the mechanisms for the expansion of monocultures like oil palm plantations (Alonso-Fradejas 2012; Grajales 2015; Maher 2015; Edelmán and León 2013). Violence in the Polochic is associated with the mechanisms of expansion and dispossession of land: direct violence recognized by human rights framework (NN.UU 2007). There was violence in all phases of the conflict, from threats, intimidation and the presence of the company's armed private security to killings, kidnappings and violent evictions. This violence had a strong demobilizing effect, as it was applied to a population that had already been heavily repressed (Hurtado 2008). During all phases, violence, and the fear instilled in the minds of the Maya-Q'eqchi' that lived through the Guatemalan civil war suppressed the local indigenous people's arguments against oil palm and sugarcane plantations. Social fear is a complex collective experience (Pain and Smith 2008) that can be unleashed by isolated events, such as the Panzós Massacre of 1978 (CEH 1999), and by everyday events, like the presence of private security forces, or symbols that bring back memories of the Guatemalan Civil War, such as military uniforms, a scorched earth military strategy – burning of homes and crops – to ensure the permanent dispersal of the population, or government announcements outlawing protests.

In Guatemala, the threat of violence as a means to generate fear has been systematically used to muffle the peasant struggle for land in the past and in the present (Ibarra 2009). Scott (1977) argues that in contexts of strong repression and violence like those described earlier, the oppressed population develops silent resistance strategies and its oppositional arguments are only shared in secret. Scott (2008) argues that it is only when fear is overcome that visible rebellions and protest actions occur. However, the Maya-Q'eqchi' occupied lands without having overcome their fear, driven instead by the need to feed themselves, by their indigenous identity that attributes a sacred value to the land and maize, and by the historic support of peasant organizations. However, the state accused such occupiers of exercising violence, invading private property and who were the ones who fuelled the Polochic's conflict.

4.5.2. The role of NGOs competing types, strategies and alliances in the conflict

The role and alliances between NGOs and communities were also key factors for visibilizing the conflict on a national and international scale, in particular through organized claims and protests. NGOs gave financial and methodological support to the land occupations and the organization of peasant meetings during the *silenced phase.* During this phase, indigenous communities who depended directly on natural resources for subsistence defended their environment from the likely impacts of flex-crops. However, this "environmentalism of the poor" (Martinez-Alier 2002) was not visible on a national or international scale – despite river diversion and contamination, soil degradation or the increase in infestations (Alonso-Fradejas 2012) –, probably because environmental organizations did not offer sufficient support. These results stand in stark contrast to those found on a transnational scale, where environmental organizations have led the protests against oil palm plantations on the grounds of their impacts to deforestation and biodiversity (Koh & Wilcove 2007; Venter et al 2008).

As the conflict developed, diverse national NGOs and international human rights NGOs built alliances, which led to the conflict being depicted as one about rights in the *revealed phase*, and one about agrarian conflict in the *silencing phase*. These results coincide with other studies illustrating that both the type of NGOs and the alliances between NGOs involved in campaigns influence the visibility of a conflict and the arguments of those involved (Brad 2015; Castellanos-Navarrete and Janssen 2015; Pye 2010; Wolford 2004). Alliances between environmental and agrarian organizations have contributed to depict some conflicts as agrarian or environmental struggles on a national and transnational scale, for example through campaigns against climate change, agrofuels, deforestation and land grabbing (Pye 2010; Brad 2015), and the development or breakdown of alliances between NGOs and the local population have also sometimes contributed to mask existing conflicts (Wolford 2004; Castellanos-Navarrete and Janssen 2015).

In the Polochic, the evolution of the conflict forced NGOs to change their strategies, and to form new alliances with international human rights NGOs. Similar to other violent agrarian conflicts, the NGOs opted to condemn the violation of human rights at the international, rather than the national level (Künnemann and Monsalve 2013, Marin-Burgos 2014). In Guatemala, where the economic power of oligarchic families is historically linked to legislative and judicial power (Casaús-Arzú 2010), the human rights framework has not worked in favor of the demands of Polochic's indigenous population, where the right to life, food and housing continues to be denied (OACNUDH 2013).

According to Monsalve (2013), the functionality of the international human rights framework (UN 1948) depends on each context and the extent to which the framework itself has been developed. The results of this research illustrate that a human rights framework does not by itself allow for an effective denunciation of what Galtung (1969) would call "structural violence" or what Nixon (2011) terms "slow violence". The latter refers to the damage to marginalized populations that occurs continuously through time and space, provoking almost imperceptible socio-ecological changes (ibid.). In this case, slow violence is the process of dispossessing the Maya-Q'eqchi' population of their resources through land (re)concentration or contamination process, whereby the expansion of flex-crops has provoked the persistent denial of historical rights to land of indigenous communities, malnutrition, poverty, labor exploitation and the loss of biodiversity (Alonso-Fradejas 2012, Mingorría et al 2014). As opposed to direct

violence, this kind of "structural" or "slow violence" is more difficult to denounce in front of the IACHR or national courts since international NGO donors neither finance nor support long processes of denunciation. Difficulties also emerge from the mechanisms and language that would need to be used for such a purpose, requiring human rights "professionals", and the coordination between national and international NGOs and local communities. In addition, such "slow violence" is occurring in a falsely named post-conflict context. In the Polochic case, international human rights NGOs only intervened to denounce the incidents of direct violence when there was "proof" – photographs and witnesses – to present to international agencies.

The intervention and exit strategies of NGOs also caused the conflict to be revealed or silenced. The intervention of human rights and international development NGOs elevated the conflict to an international scale, at the same time that their exit or non-intervention silenced the conflict. Financial support was present in all phases of the conflict: from the logistics of the meetings against agro-fuels in the silenced phase, the human rights framework-based complaints and documentary filming in the revealed phase through to the march and the international campaign in the silencing phase. Despite the nature of the NGOs analyzed – that is, the dependence on external agents – the results show how the strategy of the peasant NGO in the silencing phase was influenced by the international funds it had received to develop a more globally visible campaign. Once the campaign finished, their involvement in the conflict dropped significantly.

Moreover, the increased tension between and within NGOs due to mistrust, their different strategies and also their fatigue during that transition is likely to influence the Polochic struggle in the short-term future. Such tension and breakdown of alliances on an international scale occurred among the international human rights NGOs and national NGOs. Over the course of the conflict, international NGOs mobilized the human rights framework and pursued specific campaigning actions at international level, while national and local NGOs diverged in their strategies depending on the type of organization they were (development, research or peasant). In other studies, tensions have also been noted between NGOs that seek to negotiate and define sustainability criteria with regard to oil palm production and those that are against the expansion of oil palm (Borras 2015; Marin-Burgos 2014).

4.6. Conclusions

This article has argued that the level of violence and threat, the role of state, and the nature and the type of NGOs, their strategies and alliances involved have influenced the evolution of the flex-crops' conflict in the Polochic. The support of peasant organizations, many of which were part of revolutionary guerrilla groups during Guatemala's military dictatorship, has played a key historical role in the defense of the territory and the struggle for land access (Alonso-Fradejas 2015). Their current role in the conflict over oil palm and sugarcane plantations in the Polochic has also been important, because they have acted as key community supporters and brokers of peasant demands in front of governmental institutions.

The analysis of the Polochic conflict has shown that the alliances between NGOs and the rural population have weakened over time, with a decrease in the number of NGOs present in the region. Tensions and disagreement due to divergent strategies and ideologies have prevented the formation of a solid peasant movement (Bastos and Camus 2003). Furthermore, NGOs horizontal advocacy has in the silencing phases

become vertical, whereby supra-local scale a part of international and national NGOs have an impact on the local level without substantial involvement from the grassroots organization. Direct violence and the threat of violence are key factors behind this weakening, associated with new dynamics in the expansion of monocultures and the top-down advocacy in the silenced phased of the conflict by a few international and national NGOs. This has prevented local communities' strategies from taking center stage. As a result of these dynamics, the Polochic conflict is publicly touted as one that is resolved although a concealed, and latent, conflict remains.

The triangulated methods used in this article have enabled me to observe possible contradictions between the results obtained from participant observation, semi-structured interviews and content analysis (Nightingale 2015). For example, content analysis showed the conflict to be resolved and successful in the *silencing phase*, but the interviews illustrated that it was still latent and even more complex than in previous years. The results furthermore show the importance of a dynamic and multi-scale perspective in the analysis of conflict, since the visibility and nature of a conflict depends on the scale and moment of analysis and the stakeholders interviewed. Also, the results suggest that no transversal social movement has yet been created in the Polochic to effectively articulate environmental, social, cultural, economic and labor demands against flex-crops or to address the tension between the sometimes divergent aims and strategies of NGOs and the local indigenous population.

Some methodological limitations must be considered. While the conflict escalated to the international sphere through NGOs and a rights-based language, I did not analyze the evolution of such language from a historical perspective nor from the local scale. Future studies could conduct a historical analysis of the changes in the language used by Guatemalan agrarian and environmental justice movements to denounce structural violence that emerges in the expansion of flex-crops, and why such changes have occurred, as explored more generally in Central America (see Coklin et al 1995). Finally, further research could focus on the languages and plurality of resistance strategies of the Maya-Q'eqchi' (Alonso-Fradejas 2015), in order to shed light on the mechanisms leading to the spread of political organization across communities. Overall, studies of agrarian and environmental conflicts with a dynamic and multi-scale focus need to continue in Guatemala and other Latin American countries, as the results suggest that new stakeholders, strategies and discourses could come into play in the coming years.

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4.8. Annex

Tabla 4.3 NGOs, classification by impact scale and focus

NGOs	**Meaning of acronym and work areas related with the Polochic case**	**Interviewees**	**Type of NGOs by operational governance scale**	**Type of NGOs by focus**
ECAP	*Equipo de Estudios Comunitarios y Acción psicosocial (Community Study and Psychosocial Action Team)* Provides psychosocial support to the victims of the Guatemalan Civil War	Former specialist member of the organization	National	Development
UVOC	*Unión Verapacense de Organizaciones Campesinas (Verapaz Union of Peasant Organizations)* Campaigns for integrated rural development through legal and organizational guidance with access to and use, tenancy and ownership of land, labor rights, community and productive development. Pressures for, negotiates and proposes laws before Congress.	One representative and one field specialist	National	Peasant

NGOs	Meaning of acronym and work areas related with the Polochic case	Interviewees	Type of NGOs by operational governance scale	Type of NGOs by focus
CUC	*Comité de Unidad Campesina (Committee for Peasant Unity)* Campaigns for integrated rural development through legal and organizational guidance with access to and use, tenancy and ownership of land, labor rights, community and productive development. Pressures for, negotiates and proposes laws before Congress.	One representative and two field specialists	National	Peasant
CONGCOOP	*Coordinadora de ONGs y Cooperativas* *(NGO and cooperatives coordinator)* A consortium of research institutes and affiliates focused on the integrated rural development of the peasant population. As well as research, it makes proposals for public policies and shares information with organizations and the peasant population	Two researchers	National	Research and Development

NGOs	Meaning of acronym and work areas related with the Polochic case	Interviewees	Type of NGOs by operational governance scale	Type of NGOs by focus
CONCAD	*Consejo Cristiano de Agencias de Desarrollo (Christian Council of Development Agencies)* Affiliated to the CONGCOOP, in charge of fostering local power through participation on Community Development Boards in the municipalities of Panzós, Alta Verapaz	One representative	Regional	Development
FGT	*Fundación Guillermo Toriello* Fosters integrated rural development by supporting the legal security of the land, territorial planning and developing the community economy	One representative and one field specialist	National	Development
Action Aid	Promotes compliance with human rights among the landless peasantry and rural population by funding local organizations and condemning rural injustices	One representative and one researcher	International	Development (Also financial sopporter)
El Observador	Researches the socio-political and economic dynamics of Guatemala, paying special attention to the mechanisms for introducing monocultures and mining, hydroelectricity and hydrocarbon mega-projects	Ex-researcher	National	Research

NGOs	Meaning of acronym and work areas related with the Polochic case	Interviewees	Type of NGOs by operational governance scale	Type of NGOs by focus
HRC	*Human Rights Commission* Presents and supports claims by the Guatemalan population whose human rights have been violated by extractive industries, abuses of military force (especially if supported by the USA) and abuses of the legal system	National coordinator	International	Human Rights
Right Action	On a local scale, supports the defenders of human rights that are at risk, supports condemnations of violations and on an international scale identifies and analyzes the parties responsible for violations and promotes activism in Northern Hemisphere countries and on all scales builds alliances to work for justice, equality, human rights and a fair environment and development	Coordinator and two field specialists	International	Human Rights
Intermon Oxfam	International campaign to deliver land to 769 evicted families: funds reports on the situations of the evicted families, performs actions in different cities of the world, takes part in dialogues with the Guatemalan government, funds the CUC peasant organization	Latin American coordinator	International	NGO, Human Rights and Boosting the peasant economy

5. The Everyday Politics of Commons:Different reactions of Maya-Q'eqchi' communities to flex-crops expansion in Guatemala

Abstract

Over the last three decades, the land-grabbing processes by the rapid expansion of so-called flex-crops; i.e., sugarcane, palm oil or soybean have been generating the major rural changings in Latin America. In Guatemala, the flex-crops expansion of oil palm and sugarcane have increased more than 500% and 100%, respectively during the last decade. This process has contemporany dispossed indigenous communities affecting their structure and internal functioning through the control of land, labour and people. The peasant studies literature has recently stressed the importance of investigating the multiple ways in which communities articulate resistance against the expansion of these flex-crops. In this article, we focuse the analyses on commoning process as collective actions that can generate spaces alterntatives to capitalism, where alternative social relations and values are at work through place-making processes. Through a case study of Maya-Q'eqchi' communities in the Polochic Valley, Guatemala and applaying mixed methods for data collection and analysis, i.e. participant observation, semi-structured interviews and household questionnaires, and historical information, we investigate 1) how traditional institutional arrangements, in particular commoning practices, have co-evolved to face the expansion of oil palm and sugarcane plantations in the Maya-Q'eqchi'; 2) how such institutional arrangements are interlinked with the socio-economic characteristics of Q'eqchi' households, and 3) how new institutions are specifically created for facing the expansion of flex-crop plantations. We dicuss that in context of structural violence and land dispossession, the process of communing are the unique way to react against these flex-crops expansion. However, this only can happen in the isolated areas where social cohesions of the commons are less affected by external economic and political drivers. We conclude that the process of commoning is a form of everyday resistance that have a cumulative effect in ameliorating their condition than organized collective action.

Key words: Commons, flex-crops, institutions, land-grabbing, resistance

5.1. Introducción

Land-grabbing processes have been defined as speculation of large tracts of land by foreign investment (GRAIN 2008). In Latin America, it has been characterized by the control of relatively vast tracts of land and natural resources through a variety of mechanisms that involve large-scale capital (Borras et al 2012). Most land-grabbing processes with major social and environmental impacts are being produced by the rapid expansion of so-called flex-crops; i.e., sugarcane, palm oil or soybean (Alonso-Fradejas 2012, Cáceres 2014). Flex-crops differ from historical monocultures such as coffee or banana, by their multiple and flexible uses. For instance, the fruits of oil palm plantations or sugarcane can be used for agro-fuels, food, or industrial material, and can be easily interchanged between different productive sectors (Borras et al 2015; Fradejas et al 2015). This flexibility can foster their exponential expansion for the next twenty years (McKay et al 2014, Borras et al 2015, Gilbert 2012). In Central America, land-grabbing due to flex-crops has consolidated forms of indigenous dispossession and exclusion to access to land and natural resources (Edelman 1992; Edelman and León 2013; Alonso-Fradejas 2012). Additional negative impacts are caused when secondary forests are replaced by oil palm, water is diverted from its course or contaminated by oil palm processing plants and sugarcane mills (Goldemberg 2008, Alonso-Fradejas 2012, Merten et al. 2016).

To counteract land-grabbing, transnational agrarian and environmental justice movements have developed offensive responses such as campaigns against oil palm expansion or in favor of forest protection (Pye 2010, Borras et al 2013). However, one unexplored dimension to counteract land-grabbing is the perception and reaction by the people affected (Borras and Franco 2013). It is often assumed that grabbing-resistance by communities happens in homogeneous spaces and that community's interests, identities and aspirations are similar. In fact, understanding the diversity of reactions from below requires critical context-dependent empirical investigations (Hall et al. 2015), which to date remain largely overlooked (see Alonso-Fradejas 2015 as an exception).

In this context, the concept of commons (as it is understood by political ecology (McCarthy 2005, 2009)) can emerge as a tool to study resistance movements to land-grabbing (Grandia 2010). Political ecology framings of commons understand this concept as spaces of alternatives to capitalism (De Angelis 2004), where alternative social relations and values are at work through place-making processes (McCarthy 2005; Blomley 2008). In fact, commoning practices (i.e., the particular practices that produce commons and reinvent communities (De Angelis 2004)) "*shape space on a local, use-value-oriented basis, generating a spatiality of difference*" (Sevilla-Buitrago 2015).

In this paper, we aim to understand under which conditions commoning practices can be articulated to resist contemporary processes of land grabbing by flex-crops expansion. In particular, we investigate how traditional institutional arrangements, specifically commoning practices, have co-evolved to face the expansion of oil palm and sugarcane plantations in the Maya-Q'eqchi' peoples (hereafter Q'eqchi') in the Polochic Valley (Guatemala). In so doing, we revise the history of land-grabbing in Q'eqchi' territory (section 2) and explore how traditional commoning practices have co-evolved as response to these flex-crop plantations, how such institutional arrangements are interlinked with the socio-economic characteristics of Q'eqchi' households, and how

new institutions are specifically created for facing the expansion of flex-crop plantations (section 4).

5.2. The process of land-grabbing in Guatemala and the Q'eqchi' responses

Guatemala is the most unequal country in Central America with a 0.84 Gini coefficient of land concentration (FAO 2010). Currently, about 50 % of land producing maize is controlled by less than 2 % of the producers, which are mostly non indigenous (INE 2004). Indigenous population is majoritarian in the country, 60 % of population belongs to any of the 22 Maya groups. The Q'eqchi' represent the most extended and numerous group, encompassing circa 2 million people. They occupy more than half of the national territory, and are located in the Northern Lowlands region (INE 2002) (Figure 1). It is in this area that oil palm and sugarcane plantations have rapidly expanded since 2000, reaching an area of 90,000 hectares in 2010 (Alonso-Fradejas 2012). This has triggered the diversion and pollution of watercourses and the dispossession of Q'eqchi land (Grandia 2012, Hurtado 2008, Mingorría et al 2014).

Figura 5.1. Distribuition of Guatemalan ethnic groups

5.2.1. The historical land grabbing process

In Guatemala, land has been controlled during hundreds of years in the colonial and post-colonial eras by national elites, such as Germany descendant families and has functioned through the dispossession of indigenous land (Cambranes 2004; Elías et al. 2009). Five historical milestones can be identified: i) the Spanish catholic church colonization during 17th century, ii) the liberal reforms at the end of 19th century, iii) 1960-1996 Civil War, iv) land commodification that followed the Peace Agreements in 1996, and v) the expansion of oil palm and sugarcane plantations from 2000 onwards.

The Spanish colonial times. The population who were living in communities scattered throughout the territory and communal lands, was recruited in the so-called "Indian villages" by the colonizers. The villages concentrated Q'eqchi' families next to estates, forcing them to work and to pay a tribute (Hurtado 2008).

The Liberal reform. In this phase, the largest number of communal lands disappeared (Elías et al 2009). The liberal reform controlled the access to land and natural resources of indigenous people through the suppression and privatization of communal land tenure (Hurtado 2008). Many indigenous communities were forced to sell or rent their land to private farmers or to transfer their rights to municipal governments (Elías et al. 2009; Gliejeses 1989). This drove that part of the Q'eqchi' population worked as waged *mozos-colonos* on coffee estates, owned by powerful families of the country and that others Q'eqchi' migrated to the North and East of the country (Cambranes 1985 Grandia 2010, Hurtado 2014). The *mozos-colonos* was a servitude system used to seize laborers to work for the estates in return for having the right to live and cultivate self-sufficient crops (maize and beans) in the estates (Hurtado 2008).

The 1960-1996 Civil War. In 1952, the declaration of agrarian reform by the Guatemalan president brought to the forefront the indigenous demands for land and resistance to coercive labor (Cambranes 1992; Handy 1994; Granovsky-Larsen 2013). In 1960, the State, led by military governments, suppressed Q'eqchi' demands for land through the use of intimidation (i.e. burning of crops) and violence. Around 90 to 100 Q'eqchi' communities disappeared and 40% of Q'eqchi people were displaced to mountain regions (CEH 1999). The abandonment of villages facilitated the occupation of land by the military, the State and oligarch families (Lartigue 1993). Three decades of war weakened community relationships as Q'eqchi' were recruited for the Civil Self-defense Patrols, which murdered and repressed other Q'eqchi' (Paredes 2000, Stanford 1992).

Land commodification after the Peace Agreements. Following the Peace Agreements signed in 1996, the World Bank promoted land access to indigenous and peasant communities through a law that supported the market-oriented distribution program called *Fontierra* (Hernando de Soto, 2000; Inter-American Development Bank, 2002; World Bank, 2003, Cabrera, 200). *Fontierra* promoted the individual land rights over other legal agreements of collective property, which in turn facilitated the commodification of land (Alonso-Fradejas 2014, Elias et al 2009). Although *Fontierra* mandate did not select land for redistribution; it promoted the control and access to land by large landowners who had more access to information and available capital than *mozos-colonos* or rural communities (Gauster 2007, Alonso-Fradejas 2014). As result, this law only financed the redistribution of 4% of productive lands to 5% of the landless population during 1997-2008 (Garoz et al 2005, Gauster and Isakson 2007).

The oil palm and sugarcane expansion. From 2000 to 2010, oil palm and sugarcane plantations grew 587 and 108%, respectively (Alonso-Fradejas 2012). This rapid expansion was facilitated by the State and agribusinesses. While the State helped peasant cooperatives to finance the production of these flex-crops through different funding programs (Hernández and Castañeda 2011); agribusinesses coerced Q'eqchi' communities to sell or lease their land and migrate to other areas of the country. Indeed, agribusinesses made purchase and rental agreements with landowners in the area despite most of these lands were registered as cases of agrarian conflict (Mingorria and Gamboa 2010, Hurtado 2014). Further, the State also paved the way for agribusinesses,

facilitating the eviction of communities in lands considered suitable for flex-crops (Alonso-Fradejas 2012). From 2000-2004, more than 60 evictions of Q'eqchi' communities happened in lands that are now occupied by monocultures (Gutiérrez 2015).

This history of land grabbing determined the loss of indigenous communal tenure rights despite the State's commitment to reverse such land pillage (Bastos and Camus 2003; Elías et al. 2009). Currently, there is a mismatch between *de jure* and *de facto* forms of communal property. In Guatemala, there are about 1,200 estimated cases of communal land management, which occupy 1.5 million hectares (17% of the arable land) (GTC 2009, Silvel Elias et al, 2006). At a legal level, Art. 65, 2005 Law for the Registry of Cadastral Information recognizes communal lands, establishing that "*communal lands are lands in property, possession or tenure of indigenous and peasant communities as collective entities, with or without legal standing*". However, there is not any communal land inventory and thus, *de facto*, this law has either barely begun to be applied or when it has, the lack of mechanisms to manage conflicts over private and communal property hampered the process (Grandia 2012). Therefore, because the difficulty of obtain any land property rights, the most prominent way used by rural and indigenous communities to access to land is the "illegal occupation" (Granovsky-Larsen 2013). These land occupations are registered as agrarian conflicts by the Guatemalan government; both in cases of former *mozos-colonos,* who expect land rights as payment for the work done on estates, and landless peasants, who are occupying land that is privately owned. According to the Secretariat of Agrarian Affairs (Secretaría de Asuntos Agrarios 2013), Q'eqchi' people are involved in the highest number of agrarian conflicts (i.e., 20% of all registered cases).

5.2.2. Q'eqchi' reaction to the expansion of flex-crops and agrarian commons as a strategy of resistance

Q'eqchi' people defend the territory against flex-crops through different strategies based on organization and community cohesion (Alonso-Fradejas 2015). To date, Q'eqchi' people have not responded to monocultures expansion with public demonstrations or protests at supra-local level, but through strategies at territorial level, both offensive (actions that can directly harm the agribusiness) and defensive (strengthening community relationships and institutions).

Amongst offensive strategies, Q'eqchi developed "everyday resistances"[20] (Scott 1976) and small revolutions strategies[21] (Vergara and Camus 2009). As defensive strategies, a group of communities in the North of Alta Verapaz promoted initiatives to strengthen community-led system of governing social relations around land access. In doing so, they create a new rule of no accepting in their community anyone who sold his/her land and expelling anyone from the village who challenges such rule.

In the particular case of the Polochic Valley, the most evident form of resistance has been to occupy the land (Hurtado 2008, 2014; Mingorría 2016). Besides occupations, Q'eqchi people have also responded to historical dispossession through the

[20] For example, in South of Petén, there was an arson in plantations during cultivators burnt their fields in preparation for farming simulating an accident.

[21] For example, in North of Alta Verapaz, a community occupied an oil palm plantation and sowed maize among them claiming this land was titled in their name.

(re)production of agrarian commons (Grandia 2012; Wilson 1999; Stanford 2010). Unlike other Maya groups, Q'eqchi did not migrate to cities or other countries (Grandia 2012), but migrated to other not colonized rural areas where they were able to maintain their collective management of land (Atran et al 2002). Customary rules which govern land rights according to the work capacity of each family and mechanisms of labor reciprocity have been crucial to reproduce agrarian commons (Tabla 5.1) (Hurtado 2014, Grünberg 2003).

Q'eqchi' strategies of commoning are deeply entangled with their worldview (Tabla 5.1). For example, they have never abandoned the subsistence production of maize, which is deeply related to their identity, calling themselves "men of maize" (Adams 1965, Wilson 1999, Grandia 2010, 2012). Their identity deeply relies on the community as it is reflected in their vocabulary, e.g., *Junajil* is used to refer a group of people that share a space and have cohesion (Grandia 2012, Parra-Novo 1997). Further, the ancestral authorities play an important role for establishing and supporting the rules around which communities are organized based on Q'eqchi's sacred values (Grunberg 2000, Permanto 2015). Indeed, it is through community ceremonies (*Mayejak*) that Q'eqchi people communicate with nature. Any damage to nature or to another individual is interpreted as something that creates disharmony and sadness and it affects them collectively (Viaene 2015).

Tabla 5.1 Q'eqchi traditional institutional arrangements based on Grandia (2009), Wilson (1999) and Stanford (2010)

	Institutional arrangements
Labour reciprocity	
Exchange among households	Sowing maize is carried out collectively through labour exchange
	House building is carried out with the help of other families as work exchange
Management of common goods, resources and infrastructures	The management of water resources, roads, and the school are collective
Decision-making arrangement over land access	
Main bodies	The principal decision-making bodies are the communitarian assemblies. In the assemblies they make decision about production system, organization of work and activities. Moreover the social conflicts are resolved in the assemblies
Ancestral authorities	Men in the community older than 40 years old function as mediators and establish and support the rules around which communities are organized based on Q'eqchi sacred values
Bundle of rights over land distribution	
Right of access	Cultivable land: The land belongs to its users. Each family is allowed an amount of land that they can work. Forest are to be conserved with some extraction of timber and non-timber forest products and managed collectively (i.e construction materials, medicinal plant)
Rights of alienation	Cultivable and forest cannot be sold
Rights of exclusion	When someone dies the land is given back to the community in to be distributed to young people. It is not passed down by inheritance to family members

5.2.3. Q’eqchi’ communities in the Polochic Valley

The Polochic region has an extension of 280,000 hectares and 220,000 inhabitants of which 89% of the population is Maya-Q’eqchi’ and Poqomchi. Less than 10% of these communities have legal rights to the agrarian land. The majority of legalized landownership by Q’eqchi’ communities has been purchased with a title issued to the whole group as a Collective Agrarian Patrimony (CAP). Transformation of the land to agriculture was stopped by the declaration of the Sierra de las Minas Biosphere Reserve and the Sierra de Santa Cruz protected area in 1999 (Figure 2).

In 2010, oil palm and sugarcane plantations occupied more than three-quarters of the entire plain part of the valley's arable lands (8.500 hectares of sugarcane and 5.000 hectares of oil palm) (Alonso-Fradejas 2012). As a result, Q’eqchi’ families have been displaced to less productive areas in the mountains or have remained in the plain part as squatters. Those who have access to land, have developed small-scale cash crop production (e.g., cardamom, rice and coffee) and have intensified their maize production with fertilizers (Grandia 2009; Molina-Loza et al 2009; Ronzon and Till 2004). Additionally, part of the Q'eqchi men have been forced to work temporally as wage employees in the oil palm and sugarcane plantations (Gamboa and Mingorría 2010, Mingorría et al 2014).

5.3. Methods

5.3.1. Research sites

We selected four Q'eqchi communities of the Polochic Valley which had participated in the intercommunity meetings against oil palm and sugarcane plantations, but which hold different positions in terms of their involvement in oil palm plantations (Figura 5.2). Tierra Linda and Concepción II are communities located in the mountain, in the buffer zone of the Sierra de las Minas protected area (1.500 m.a.s.l.), whose members are not involved in oil palm plantations. Both communities have obtained titles for their lands as CAP after a legalization process that took 10 years.

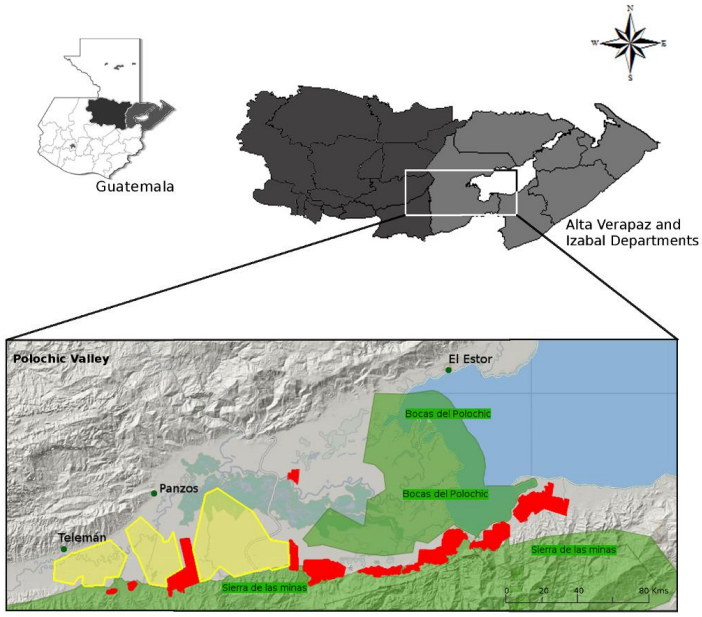

Figura 5.2. The Polochic Valley and the comunities allocated in the mountain and the valley. The red area represents the oil palm plantations, the yellow area represents the sugar cane plantations and the green area demarcates the Sierra de las Minas and Bocas del Polochic protected areas

La Esperanza and Balandra are communities located in the valley (180 m.a.s.l.), whose male members temporally work in the oil palm plantations (Mingorria et al. 2014). These communities are thus located where the pressure over the land, having to rent out land to landowners or squat the land. Although the legalization process of land rights started by the end of 1970s, the land is still owned by patrons and cattle rangers. Despite of land limitations, these communities continue to grow in number of households. (Tabla 5.2) presents a detailed description of household density, communities' extension and means of production of four communities

Tabla 5.2 General characteristics of the four selected Q'eqchi' communities

	Mountain		**Valley**	
Communities	Tierra Linda	Concepción II	La Esperanza	Balandra
Location	Buffer zone of the protected area		Expansion of monocultures area	
Number of the first households	36	30	10	16
Nowadays number of households	26	26	91	68
Total surface (Hectares)	230	180	327	412
Source of Income generation	Cardamom	Cardamom	Surplus of maize	Wage work in oil palm plantation
Formal land rights	Collective Agrarian Patrimony Since 2005	Collective Agrarian Patrimony Since 1998	No formal property titles In process since 1976	Non formal property titles In process since 1979

5.3.2. Data collection and analyses

Data were collected between 2009 and 2011 in two fieldwork periods, using a mixed methodological approach that involved participant observation, semi-structured and in-depth interviews and questionnaires (Tabla 5.3).

Tabla 5.3. Relation between objectives, data collection and data analysis techniques

Objectives	Information	Data collection	Data analysis
1.- Identify if the Maya-Q'eqchi' **traditional institutions** described by anthropologies are still at work in these communities	• Labor reciprocity • Decision-making arrangement over land access • Bundle of rights over land distribution	• Interviews (12 representatives of communities) • Participant observation (assemblies, day by day) • Review Assemblies' minutes • Surveys (92 HH) (men and women) socio-economic information	Content analysis Principal Component Analysis Hierarchical Cluster
2.- Explore how these institutions and specific context allow developing **resistance strategies**	• New institutional arrangement flex-crops expansion	• Interviews (12 representatives of communities) • Participant observations (Assemblies day by day)	Content analysis

In the first period (July-November 2009), we identified those Q'eqchi' traditional institutions related to land access and land control (Tabla 5.2). The first author interviewed 14 men and women leaders from the four communities (Annex 12.1). Specifically, we gathered information about labor reciprocity, decision-making arrangements concerning land access and the bundle of rights over land distribution. The first author also participated in twelve community assemblies in the four communities. Participation in the first series of assemblies allowed to identify each community's form of organization and types of decision making in collective forms.

In the second period (May 2010-February 2011), we conducted other 14 semi-interviews to the same male and female leaders of the previous fieldwork period to explore the institutional arrangements developed to face oil palm and sugarcane expansion. We also did a second round of participant observation in communitarian meetings to get information about conflicts over land and land-grabbing, as well as the main strategies defined collectively. We conduct content analysis to qualitatively analyze the information collected through the first and second series of interviews and participant observation.

In addition, we conducted a random household survey in order to identify socio-economic differences among the four communities. We collected 192 questionnaires, women (N = 96) and men household heads (N = 96) (Tabla 5.4). The questionnaires were structured in five sections: (1) household's demographic structure; (2) land access and uses; (3) income level and income-generating activities; (4) household expenditure; and (5) the time use pattern of individual household members. Then, we defined a set of attributes representing the socio-economic structure of the rural household system that

translated into a set of 20 multi-dimensional indicators (methodological details are in Mingorria et al. (2012)). We used a Principal Component Analysis (PCA) to identify the socio-economic indicators that mainly differentiate the households. Then, by using the Kaiser criterion (i.e., eigenvalue ≥ 1 (Kaiser 1960)), we extracted the PCA components to be used in a hierarchical cluster analysis (HCA) in order to identify groups of households. The HCA was performed using the Euclidean distance and Ward's clustering method.

Tabla 5.4 Number of sampled households in each community

Community	No. of households	Sample size	Confidence interval
Tierra Linda	26	13	14%
Concepción II	26	13	14%
La Esperanza	91	40	41%
Balandra	68	30	31%
Total	211	96	100%

5.4. Co-evolving institutions: arrangements for responding to flex-crops expansion

5.4.1. Commoning practices and traditional institutional arrangements

The most important commoning practices and traditional institutions found through the interviews are labor reciprocity, decision-making structures and leadership over land access, and bundle of rights for governing land distribution. Tabla 5.5 and Tabla 5.6 summarize the institutional arrangements found in each community.

Labor reciprocity

Collective work and household-to-household work exchange mediates the everyday life in communities. All communities held regular meetings to organize and define tasks and shifts for the management of common goods and infrastructures, such as schools, churches and paths. These types of activities make Q'eqchi people feel part of the community:

"*Everyone has done something for La Esperanza, the last works of the church for example, were made by men, they came twice per week, in shifts, and those who did not come is because they cleared the paths*". (Q11)

Also, household-to-household work for building houses and for sowing maize has been developed in the four communities, being understood as a celebration day between families who share it. However, in Balandra the exchange of household work for building individual houses has ceased because young people have to work in oil palm plantations:

"*Young people no longer have time for the community or to do anything in these lands, they prefer to earn a few cents and build their houses with cement"* (Q12).

Tabla 5.5. Institutional arrangements regarding labor reciprocity and decision making structures over land access found in the communities

	Mountain		Plain	
Communities	**Tierra Linda**	**Concepción II**	**La Esperanza**	**Balandra**
Labour Reciprocity				
Exchange services among households	Sowing maize is carried out collectively through labor exchange	Sowing maize is carried out collectively through labor exchange	Sowing maize is carried out collectively through labor Exchange or paid work	Sowing maize is carried out collectively through labor Exchange or paid work
Households	House building is carried out with the help of other families as work exchange	House building is carried out with the help of other families as work exchange	House building is carried out with the help of other families as work exchange	House building is individual Q12
Management of common goods, resources and infrastructures	Water resources, roads, and the school Management is collective through labor (rotations)	Water resources, roads, and the school Management is collective through labor (rotations)	Water resources, roads, and the school Management is collective through labor (rotations)	Water resources, roads, and the school Management is collective through labor (rotations)
Leadership and Decision-making structures over Land Access				
Main bodies:	Community Assembly:	Community Assembly	Assambly: representantes de los comittee or leaders	Assambly: representantes de los comittee or leaders
Ancestral authorities	2-3	2-3	There are not ancestral authorities recongnize	There are not ancestral authorities recongnize
External representativeness	2-3 memebers of Consejo Comunitario de Desarrollo	2-3 memebers of Consejo Comunitario de Desarrollo	Dispute between leaders	Dispute between leaders

Decision-making structures and leadership on land access

Differences of how each community made decisions on agricultural activities and land use management emerge among the four communities (Tabla 5.5). Tierra Linda and Concepción II keep the assembly for conflict resolution and decision-making. Assembly also maintains the control and management over assets (i.e. land, work, food) by organizing the production and taking the responsibility of land allocation among households. Assembly takes place weekly and all members of the community (men and women) are involved. Decisions are taken using consensus.

The assembly is also the place where representative leaders were elected. Representative leaders are members of the community development council and have the role to lead, represent and negotiate on behalf of the community with municipalities and with the state. In Tierra Linda and Concepción II, a group of three or four leaders are part of the council. Besides, there is also representation of the ancestral authorities, which mediate, establish and support the rules around community organization based on Q'eqchi's sacred values. Ancestral authorities also inform about the agricultural calendar (i.e. sowing or harvesting time):

"We *always ask community elders, who held the traditional Q'eqchi knowledge, about how do it. They helped a lot to take important decisions" (Q4).*

In contrast, in La Esperanza and Balandra, the assembly is not the principal decision-making body due to the internal division in the communities. Decision-making is based on simple majority and only households with land rights hold the right to vote. The most important decisions on land uses and properties are discussed and taken only by the representative leaders, the community development council or by the land committee. The figure of ancestral authority does not exist in any of these communities. The meetings from the committee are only organized every three or four months.

In both communities, there is a conflict of competences between the representative leaders, the members of the community development council and the leader of the land committee. Therefore, lack of trust from community members was observed during the assemblies. For example, in *La Esperanza* during the assembly about the mechanisms to handle land tenure insecurity, we spotted two groups in the community and each one distrusted one of the leaders.

Bundle of rights governing land distribution

Regulation related to bundle of rights seems to be different in the four communities (Tabla 5.6). In mountain communities, commoning is facilitated because Q'eqchi' institutions have a redistributive nature and maintain an egalitarian economic system. Mountain communities, which have collective formal property rights, have not privatized their lands and have maintained traditional rules that regulate land rights across generations:

"Our grandparents left us this land to take care of, they divided the land thinking of all, every family had to eat, our children (and those who will come) have and will have the same conditions" (Q3).

Both mountain communities, through their assemblies, annually distribute the most productive lands among existing households and each household is annually granted the

amount of land that they are able to work. Families' labor availability is registered and annually assessed by an internal land committee:

"*There are so many families, and each family has so many men and children who work the land [...]. So it is divided as follows: larger families, larger land to work" (Q1).*

Land cannot be sold, borrowed or rented to people outside of the community.

Tabla 5.6. Description of the bundle of rights found in the communities selected

	Mountain		**Plain**	
	Tierra Linda	**Concepción II**	**La Esperanza**	**Balandra**
Bundles of rights over the land distribution				
Rights of Access withdraw *	Cultivable land: Each family is allowed an amount of land that they can work	Cultivable land: Each family is allowed an amount of land that they can work	Cultivable land: Sólo 10 familias de la comunidad tienen derecho a acceso y uso. Lotificado por familias Los nuevos hogares no tienen derecho a tierra culrivable solo a tierra para cosntruir una casa	Cultivable land: 29 families que fundaron la comunidad tiene derecho de acceso y uso a tierra Lotificado por familias Los nuevos hogares no tienen derecho a tierra culrivable solo a tierra para cosntruir una casa
	Collective cultivable land (8 Ha of Rubber)	Collective land to cattle rising (5 Ha):	Non collective land uses	Non collective land
	Collective Forest (18 Ha): Es intocable, se deja para la conservación (15 Ha) All families can access to collect woods for houses building (3Ha)	Collective Forest (8Ha): All families can access to collect woods for houses building		
Rights of alienation**	Land can not be neither rented, borrowed nor sell	Land can not be neither rented, borrowed nor sell	Land can be rented and borrowed	Land can be rented and borrowed
Rights of exclusión***	It is not passed down by inheritance to family members When someone dies the land is given back to the community in to be distributed to young people.	It is not passed down by inheritance to family members. When someone dies the land is given back to the community in to be distributed to young people	It's not formally defined	It's not formally defined

	Mountain		Plain	
	Tierra Linda	**Concepción II**	**La Esperanza**	**Balandra**
Mechanism of land distribution and management	Cultivable land: Repartición de tierras cada año. Comité de tierras Q2	Cultivable land: Repartición de tierras cada año. Comité de tierras Q2	Cultivable land: The early economic endowment of each family determined how much land they could fence	Cultivable land: Los fundadores dividieron la tierra a partes iguales. Q6,Q7
	Collective cultivable land No tiene beneficios todavía Collective forest: Solicitudes en asamblea se dan teniendo en cuenta que tienen que haber 4-5 especies nativas	Collective land to cattle rising: no se usa todavía Collective forest: Solicitudes en asamblea se dan teniendo en cuenta que tienen que haber 4-5 especies nativas	No collective land to projects	No collective land to projects
Consequences				
Internal socio-economical inequalities	LOW Homogeneus (G1)		HIGH Higher income, surface of land for maize cultivation and maize consumption p.eq in G4 than G5	HIGH Higher income, surface of land for maize cultivation and maize consumption p.eq in G3 than G2

Rights refer to particular actions are authorized (Ostrom 1976).

***Rights of access and withdraw as the right to enter a defined physical property and obtain resources units or products of a resource system**

****Rights of alienation as the right to sell or lease land either or both of the above collective-choice rights and**

***** Rights of exclusion as the way the right of alienation may be transferred (Schlager and Ostrom 1992)**

In contrast, in the early 1990s available land in the valley communities was distributed unequally across households because they decided to "privatize" the land, even without formal ownership of the land:

"*We divided the land because it was from a patron, we did not have titles and there was another community below us. So when dividing it, each person would defend the land, we were the ones who fought for it, so the land is safer"* (Q8).

Furthermore, both mountain sites have started to develop collaborative projects aimed at improving the quality of life of all households in the community through diversifying the sources of income. Tierra Linda has started to develop a collective rubber plantation project and Concepción II has reserved an area to feed the livestock they aim to buy. Both communities have kept parts some areas of the forest for strict conservation and other areas for the extraction of building materials. Extraction permits are granted in the assemblies so that forest conservation is collective and sustainable over time:

"(…) people come to the assembly and make the request. We all listen so that we all take care of the oxygen provided by trees" (Q8).

Contrarily, none of the valley sites have collective productive projects nor forest conservation projects.

5.4.2. Links between socio-economic characteristics of households and traditional institutional arrangements

HCA results show that there are five groups of households (Figura 5.3). Mountain communities live under similar socio-economic conditions as households of Concepción II and Tierra Linda were grouped together in the HCA (G1). Indeed, the households in these communities had similar income, expenses, land access and uses (Tabla 5.7).

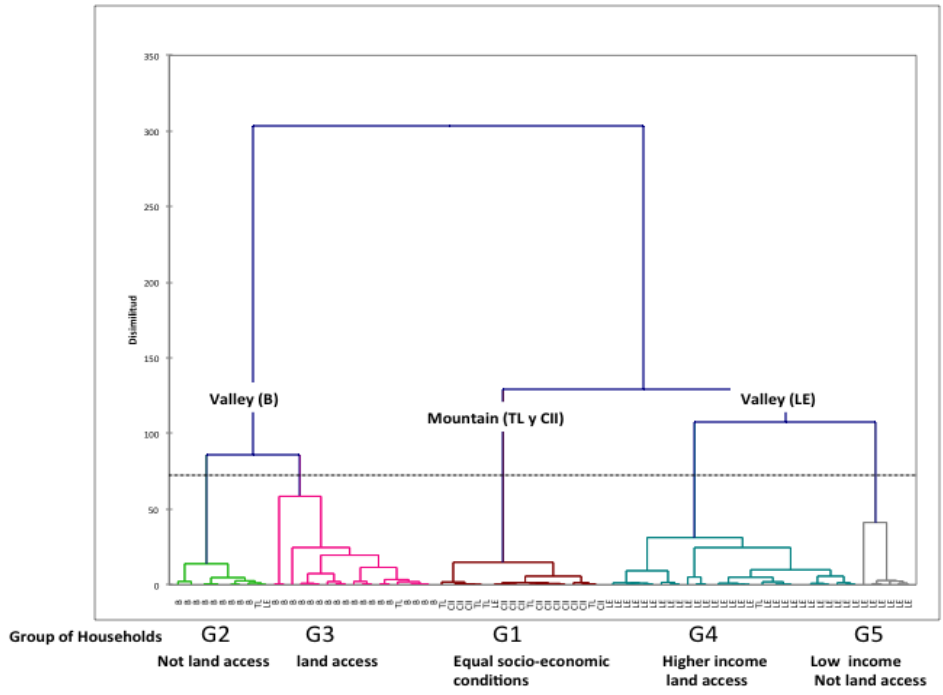

Figura 5.3. Hierarchical cluster analysis (HCA) performed with socio-economic indicators at the household level in the four different Q'eqchi' communities, which yielded 5 different groups of households

HCA shows that households from the valley communities are separated in four different groups, G2 and G3 belong to Balandra and G4 and G5 to La Esperanza. This reflects higher socioeconomic inequalities in food security, access and use of land within the sites. In La Esperanza, G4 differs from G5 because households have higher income from selling surplus maize and more access to land under maize cultivation. These differences are conditioned by the distribution of rights. The early economic endowment of each family determined how much land they could fence and therefore access and cultivate:

"Upon arrival, we met and hired an engineer and according to each person's ability to pay, so was land granted. The more money, the more land was given to that family" (Q5).

In Balandra, although land was distributed equally to all households, families with smaller land endowments were granted land plots in less fertile workable soils:

"*The (land) committee issued an order saying they were distribute the land, and so it was divided, a map was drawn and the land was equally divided*" (Q6)

In Balandra, G3 group of households represents the early-endowed families that had been able to keep larger tracks of land under cultivation for many years, and who currently have high income, levels of land used for maize cultivation and consumption of maize per equivalent consumer. Howerver, G2 group shows the youngsters and newcomers that have no rights of access to land and have to work on surrounding oil palm plantations. Although rental and lending with special agreements among households in Balandra community is allowed, households that belong to G2 failed to plant the same area of land for subsistence than families with land rights.

Tabla 5.7. Mean values of indicators that explained the three factors obtained in the Principal Component Analysis (PCA) for each group obtained by the Hierarchical Cluster Analysis (HCA). TL= Tierra Linda, CII = Concepción II; LE= La Esperanza; B= Balandra.

		Mountain		Valley							
		G 1(TL, CII)		G 2 (B no land)		G 3(B land)		G 4(LE no land)		G 5(LE land)	
FACTORS		Mean	Desv.	Mean	Desv.	Mean	Desv.	Mean	Desv.	Mean	Desv.
F1	HA Cashcrop (surplus maize, cardamom and rice)	985,670	412,882	47,273	156,786	85,645	373,317	273,769	169,134	1210,852	725,213
	HAwagelabour	218,158	359,441	1762,273	895,465	2528,947	1838,048	920,017	756,107	458,333	462,100
	Income-off community	217,895	587,533	9614,545	6267,397	16604,421	17540,808	2309,310	4422,964	1116,333	1355,487
	Income-on community	4270,526	2519,353	942,273	2050,684	546,039	3655,301	4918,224	3168,367	13422,500	11954,896
	Saturation of work	0,505	0,135	0,742	0,116	0,572	0,176	0,567	0,146	0,411	0,067
	Saturation of market	0,068	0,037	0,222	0,108	0,137	0,125	0,106	0,068	0,069	0,019
	Net income p.c	613,022	400,031	3413,090	1775,381	2632,523	2820,362	1426,145	1149,357	786,923	235,812
F2	Property Commercial Crops	0,802	0,440	0,000	0,000	0,053	0,231	0,077	0,137	0,365	0,322
	ProductionMaize	719,584	192,790	629,076	281,915	509,437	285,335	1698,058	557,475	1943,909	365,942
	Agricultural expenditure	417,632	770,929	960,227	1382,319	1762,395	2692,060	4459,534	3551,569	11430,10	10303,41
	Consumption p.e.c	297,493	164,961	290,453	111,606	694,666	246,624	493,116	94,361	676,714	342,102
	Productivity 1	709,301	170,687	463,848	336,755	476,181	265,988	992,034	850,432	1742,294	568,681
	Productivity 2	719,762	205,328	281,942	210,093	525,813	323,897	1758,933	601,156	2073,460	447,833
F3	HA_mize	688,358	433,227	184,176	114,328	954,366	872,184	519,610	316,253	1587,400	696,137
	RentedBorrowed	2,042	0,790	1,961	3,959	9,462	5,957	2,547	2,434	2,098	1,077
	PropertySubsistencce	2,840	0,781	0,109	0,340	2,403	1,277	1,207	0,865	3,183	1,336
	Consumption total	1351,129	444,784	1184,766	394,931	2282,491	1110,228	1607,145	760,479	2975,774	735,093
	Selfconsumption	1139,105	285,872	508,091	219,756	1204,474	740,589	1062,759	539,446	2445,667	870,563
	Working women	2,097	1,221	3,182	1,168	1,391	0,783	2,500	0,548	1,462	0,776
	Working men	2,194	1,327	2,727	1,902	1,174	0,576	3,167	0,753	1,462	1,050
	Equivalent consumer	4,494	1,863	6,300	1,627	3,083	1,265	6,025	0,789	3,150	1,627
	Years being in the community	27,903	10,750	37,727	3,771	30,304	9,373	36,667	8,618	25,019	10,998

5.4.3. New institutional arrangements facing flex-crops expansion

Content analysis of interviews also show a different process of reaction to oil palm among these communities mediated by the creation of new institutional arrangements. Communities in the mountain have developed new rules regulating the participation of households in oil palm and sugarcane markets. Since 2010, their assemblies decided to not participate neither in oil palm and sugarcane plantations for four main reasons: (1) the flex-crop plantations remind them the violence associated with land suffered in last decades (see section 2.1.), (2) working in flex-crop plantations can undermine community cohesion, (3) oil palm can hinder food security, and (4) drive soil degradation and water pollution. In fact, oil palm plantations revive memories of the forms of alienation experienced in the *mozo-colono* system or the violence suffered during the Civil War, which assemblies try to avoid:

"These plants are growing with the blood of our dead who were never able to take care of the land […] The war in the Polochic never ended, they continue grabbing land, killing, there hasn't been any change from then to now" (Q18)

These communities also reject the idea of working for plantation owners or agribusinesses because it can result in the division of the community:

"*In other communities ideas are divided because they (people) are divided into foremen and palm fruit cutters. We do not want that to happen between us and we want our young people to look for other farming activities in the community instead of going to work in the palm because those who left haven't come back well*" (Q14)

They further consider the oil palm fruit and sugarcane unprofitable for consumption and, thus, a threat to food security.

"If we sow and work we have enough for the year, it's something we learned and we know how to do. The palm is foreign and not edible. What will we eat if everything is palm and cane? (Q16)

Finally, they think that oil palm plantations are responsible for biodiversity loss, soil degradation and water pollution:

"Nothing grows under those trees, many pests, and then they put snakes to eat pests and now those pests poison people working in the palm, our children" (Q18)

In contrast, in *La Esperanza* and *Balandra* there are not collective agricultural endeavors, nor rules and regulations regarding what households would do in terms of cropping and participation in markets. A low cohesion in collective actions related to agricultural project is demonstrated probably due to the demographic origins of communities in the valley where founders' families belong from different areas and with previous implications in the Civil War:

"*If I lived in the valley, I would not trust my neighbors, it is not known where they came from these families and I know many men were on the side of the military and betrayed families who then killed, instead we flee to the mountains together and we are all one family"* (Q12).

5.5. Discussion and Conclusion

The processes of land-grabbing by the expansion of flex crops such as oil palm and sugarcane plantations in Latin America are dispossessing land to indigenous communities and creating strong environmental impacts (Edelman 1992, Alonso-Fradejas 2012; Edelman and León 2013; Caceres 2014, Arizpe et al 2013; Marin-Burgos 2014). Responses are taking place not only from transnational campaigns for social and climate justice (Pye 2010); but also from the indigenous communities themselves (Borras and Franco 2013, Alonso-Fradejas 2015). However, we have shown through the case of Q'eqchi' people in Guatemala that communities' responses can vary despite sharing ethnicity.

As described by Hall et al (2014), when land-grabbing hits the ground, it interacts with historically specific expectations, aspirations and traditions of struggle of indigenous communities. In the case of the Q'eqchi', the oil palm expansion resonates with recent and more distant memories of oppression like those of the Civil War or the *mozo-colono* system (see section 2); but also with the traditions of struggle which, in these contexts, have been tightly linked to commoning strategies (Grandia 2012). Thus, to understand commoning strategies as resistance, we need to understand how the Q'eqchi' communities have been formed, how their institutional arrangements have been developed, and their internal dynamics. In this study, we have shown how communities allocated in the valley, which are composed both by families who were victims of the Civil War and by families from the Army (including Civil Defense Patrols) (Paredes 2000), have been less successful to resist land-grabbing through commoning strategies because the lack of community cohesion and the absence of assemblies as decision-making process. In contrast, mountain sites have maintained a greater unity among members of the community through the preservation of traditional Q'eqchi' institutions (Wilson 1999, Grandia 2012, Stanford 2011). Although most of the Q'eqchi 'communities in Guatemala engage in capitalist exchange, either through the sale of the crops they produce or labor for a wage (Barkin 2005, Grandia 2012), they still rely on non-capitalist institutional arrangements for mediating their social relations and their relations with the environment. In fact, the traditional institutional arrangements existing in the mountain communities, not only maintain the work exchange in maize production and other community activities, but they continue to distribute the land depending on the availability of labor of each family; ancestral authorities still play an important role in the community and major decisions are still made in assemblies (see section 4.1.). This egalitarian basis has allowed the development of the offensive nature of the commons to land-grabbing threats. Moreover, the collective norm of not working for oil palm or sugarcane companies confronts the capitalist agro-export model (Alonso-Fradejas 2015). Therefore, this study demonstrates that traditional Q'eqchi' institutions developed in mountain communities are successful for confronting the expansion of flex-crops and land-grabbing because they enforced the primacy of collective interests in the community over specific squabbles at the individual or group level.

However, this is not a simple straightforward explanation; spatiality also plays a very important role in allowing commoning practices to be reenacted. The valley sites face everyday a higher risk of eviction, which is generally increasing in the region (Hurtado 2014). In March 2011, for the first time in Guatemala, 12 Q'eqchi´ communities were evicted in order to establish sugarcane plantations in the region (Mingorría 2016 forthcoming). Thus, these communities which lack land security daily defend themselves from possible evictions, while seeking ways to secure access to land by

legal means. In this case, it has not only been the scarcity of land (Anderson and Hill 1975), but the fear of losing it, which could have led to the strengthening of forms of individual property (Ybarra 2011). The lack of land security, tiredness for many years in the process of legalization and lack of community cohesion have led to the development of community rules based on individualism, market logic and the privatization of land. However, the valley sites despite internal conflicts and power struggles continue to fight to curb the expansion of flex-crops and collectively claiming ownership of the land. They resist in community "occupying" the fertile lands of Polochic Valley. Additionally, their intention to resist oil palm has been shown in their participation in peasant meetings to define territorial strategies to curb its expansion. Among the claims, they ask for the recognition and promotion of communal property as the main form of regulation and access to land for indigenous communities (GTC 200, Monterroso and Larson 2013, Alonso-Fradejas 2015).

Commoning strategies do not show only a defensive and static character as they can evolve and develop new rules that intend to face the expansion of oil palm and sugarcane plantations. One of the most relevant new rules agreed in assembly in mountain communities was to forbidden the participation of their members in oil palm and sugarcane plantations (see section 4.3.). However, as the demand for labor in both plantations is not very high compared to coffee, bananas or maize (Dür 2016) it would require most communities Q'eqchi adopting this rule to prevent labor availability to work as laborers. The resistance strategies through commoning processes with defensive/offensive characteristics found in this study are consistent with other studies conducted in Q'eqchi' communities in Petén, Quiché and Alta Verapaz (including the Polochic Valley) (Alonso-Fradejas 2015, Hurtado 2014).

Our results also suggest that commoning strategies are entangled with other forms of everyday resistances. By building trust networks, workers hurt plantation owners through sabotage on oil palm plantations or occupying oil palm and sugarcane plantations. All these forms of resistance show that Q'eqchi people seek autonomy (wanting to cultivate "their" land) and breakdown of traditional relations of subordination, i.e. *mozos- colonos*. This type of resistance can also be considered a form of peasant rebellion (Robles 2000) to promote the reproduction or creation of what Vergara-Camus (2009) calls "rural autonomous communities", referring to the Zapatista communities in Mexico or MST in Brazil.

By examining the dynamics of Q'eqchi' institutions in different communities, we have been able to analyze how these commons are affected and have reacted differently to land-grabbing processes; and also understand the politics of resistance involved in these agrarian commons. Q'eqchi' commons that are geographically more isolated, by living in the mountain, have been more able to maintain their territorial autonomy and social cohesion. The latter has provided them to develop more offensive mechanisms to oppose to land-grabbing. In contrast, the intensive and accelerate dynamics of land-grabbing fostered by the expansion of oil palm and sugarcane in the plain have hidden the capacity of communities to maintain their traditional institutions and develop new strategies against land-grabbing. The everyday politics of the commons are the base of the resistance to land-grabbing by Q'eqchi' communities, being the agrarian commons the base of the silence resistances and a peasant rebellion.

5.6. References

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5.7. Annex

Tabla 5.8 List of interviewee within each community

Code of interview	Cited quote	Interviewee	Interview date	Interview length (h:min)
TL1	Q1	Elder and founder of the commnunity	23/04/2009	1:45
TL2	Q2	COCODE representative	24/04/2009	1:20
TL3	Q3	COCODE representative	6/04/2009	1:07
CII_6	Q4	COCODE representative	7/04/2009	1:35
CII_7	Q5	COCODE representative	8/04/2009	1:45
LE_10	Q6	COCODE representative	22/06/2009	1:06
LE_11	Q7	Community leader	22/06/2009	1:15
B_13	Q8	Community leader	5/05/2009	1:40
B_14	Q9	Old man	6/05/2009	0:50
B_15	Q10	COCODE representative	20/05/2009	1:43

Tabla 5.9 List of communitarian assamblies in each communities

Code	Cited quote	Community	Participants		Date	Assambly Length
			Men	Women		
A_TL	Q11	Tierra Linda	17	8	26/08/2009	3:15
A_CII	Q12	Concepción II	22	15	27/08/2009	4:00
A_LE	Q13	La Esperanza	14	4	3/02/2010	2:50
A_B	Q14	Balandra	8	0	2/02/2010	3:00
A_Mountain	Q15	Tierra Linda y Concepción II	54	20	5/03/2010	4:15

Tabla 5.10 Variables used in the principal component analysis (PCA)

Attributes	Indicators	Units	Descriptions
History Demographic			
	Working men	Nº	Number of member tween 10 and 50 years old
	Working women	Nº	Number of women older than 10 years old
	Equivalent consumer	Nº	Men older than 50 years old are 0,8 equivalent consumer; between 15 and 50 years old are 1 equivalent consumer, between 9 and 15 years old are 0,75 equivalent consumer, between 5 and 9 years old are 0,5 equivalent consumer, between 2 and 5 years old are 0,3 equivalent consumer, and child younger than 2 years old are 0,1 equivalent consumer. Women older than 50 years old are 0,7 equivalent consumer; between 15 to 50 years old are 0,8 equivalent consumer, between 9 to 15 years old are 0,7 equivalent consumer, between 5 to 9 years old are 0,3 equivalent consumer, between 2 to 5 years old are 0,3 equivalent consumer, and child younger than 2 years old are 0,1

			equivalent consumer Adapted from Hammel (2005)
	Years being in the community	Years	Time of household member are living in the community that takes longer
Productive factors controlled by households			
Human time uses	Human time to basic grains	Hrs	Human activity allocated to maize and beans production
	Human time to cash crop	Hrs	Human activity allocated to maize production for selling, cardamom and rice
	Human time to paid work	Hrs	Human activity allocated to work in oil palm plantation, as a mozo in other family plots or in landowners plots and outside the valley
Land uses and rights	Land Rented and/or Borrowed and used of basic grains	Ha/year	Area of land borrowed or leased declared and cultivated with maize and beans in dry and rainy season
	Land owned and used of beans	Ha/year	Area of owned land declared and cultivated with maize and beans
	Land owned and used of commercial crops	Ha/year	Area of property land declared and cultivated with, cardamom
Production and Consumption			
	Production of maize	kg	Total maize production
	Consumption of maize	Kg	Produced and purchased maize that are consumed by the household
	Self-consumption of maize	Kg	Produced maize that are consumed per capita
Complements to peasant economies			
Income	Income off-farm	Q	Income come from activities outside of community as a working in oil palm plantation, or in landowners plots
	Income on-farm	Q	Income come from activities inside of community as a *mozo* in other family plots, selling maize, beans, cardamom or rice
Expenditures	Agricultural expenditure	Q	Expenditures on agrochemical and *mozos* for maize production
	Household expenditure	Q	Expenditures on maize, households goods, food and clothing for the household (included all the family members)
Rations: workload and intensity of metabolic process			
Time uses	Saturation of work	%	Workload including household chores, agricultural production (basic grains and cash crop), paid work and collective projects, over disposal human activity of household members of working age.
	Saturation of market	%	
Productivity	Productivity of maize in rainy season	Kg/Ha	Production of maize in the least productive season per surface
	Productivity of maize in dry season	Kg/Ha	Production of maize the most productive season per surface

Tabla 5.11 Factor loadings derived from the principal component analysis (PCA), used for defining group of households related their socio-economic conditions.

		Factor 1	**Factor 2**	**Factor 3**
Productive factors controlled by households				
Human time uses	Human time to basic grains	0.336	-0.133	**0.613**

	Human time to cash crop	**0.744**	-0.268	0.103
	Human time to paid work	**-0.683**	0.237	0.440
Land uses and rights	Land Rented and/or borrowed and used of basic grains	-0.302	-0.091	**0.511**
	Land owned and used of basic grains	0.447	-0.311	**0.655**
	Land owned and used of traditional commercial crops	0.499	**-0.506**	0.043
Production and Consumption				
Production	Production of maize	0.571	**0.624**	-0.255
Consumption	Consumption of maize	0.162	0.365	**0.680**
	Self-consumption of maize	0.568	0.281	**0.590**
Complements to peasant economies				
Income	Income off-community	**-0.699**	0.297	0.425
	Income on-community	**0.777**	0.285	0.042
Expenditures	Agricultural expenditures	0.504	**0.562**	0.296
	Household expenditures	-0.508	0.082	0.422
Rations: workload and intensity of metabolic process				
Time uses	Saturation of work	**-0.525**	0.310	-0.225
	Saturation of market	-0.561	0.372	0.079
Productivity	Productivity of maize in dry season	0.476	**0.517**	0.026
	Productivity of maize in rainy season	0.562	**0.620**	-0.239
	Time productivity	0.176	0.511	-0.214
Income	Returns to labour	-0.115	0.402	-0.151
	Net income p.c	**-0.701**	0.466	0.062
Supplementary variables				
	Number of working women	0.070	0.121	**0.279**

	Number of working men	0.054	0.096	**0.383**
	Equivalent consumer	0.075	0.109	**0.416**
	Years being in the community	0.028	0.008	**0.274**
Statistics of PCA	Eigenvalue	5.622	3.126	2.782
	Percentage variance explained	28.111	15.629	13.911
	Cumulative % variance explained	28.111	43.739	57.651

The eigenvalues and the variance explained of the first's three factors. Those figure in bold show the indicators that have the highest square cosine and thus represent the most influential indicators.

6. The oil palm boom: socio-economic implications for *Q'eqchi'* households in the Polochic valley, Guatemala.

Abstract:

Oil palm (*Elaeis guineensis*) has become one of the most rapidly expanding crops in the world. Many countries have promoted its cultivation as part of a broader rural development strategy aimed at generating paid work and producing both export commodities and biofuels. However, oil palm expansion has often occurred at the expense of ecosystems and subsistence agriculture, and on lands riddled with tenure conflicts. In this article, we analyse the implications of the combined effect of labouring in oil palm plantations and land access on households, and we discuss how these implications affect human wellbeing in two indigenous communities of the Polochic valley, Guatemala. Combining participant observation, semi-structured interviews and land-time budget analysis at household level, we reveal how oil palm cultivation increases incomes for plantation workers' households, but decreases the productivity of maize cultivation, reduces the time that household members have available for other activities and, particularly, reduce women's resting time. In contrast, households that focus more intensively on maize cultivation show higher degrees of food security and women can allocate more time to social activities. However, our results also show that maize consumption per capita has not decreased in households working in oil palm plantations since such crop is considered sacred by the Q'eqchi' and plays a central role in their diet and culture. In conclusion, we argue that while working for an oil palm cultivator can increase specific elements of the basic material conditions for a good life, other aspects such as food security, health, freedom of choice, and social relationships can become deteriorated.

Keywords: palm oil, gender, Guatemala, indigenous communities, societal-metabolism, wellbeing indicators

6.1. Introduction

The cultivation of crops such as oil palm, sugarcane, soybeans, and jatropha for the production of export-oriented agricultural commodities and biofuels has become a major driver of land-use change in developing countries since the 1990s (MA 2005). Oil palm (*Elaeis guineensis*) has been the most rapidly expanding crop between 1990 and 2007 in Southeast Asia whilst in Latin America its expansion started in the early 2000s (FAOSTAT 2011; Janssen and Rutz 2011). In 2007, biofuel crops covered about 1% of the world's arable land and this is projected to increase by 4% over the next twenty years (UNEP 2008). Such expansion will mostly take place in African and Central American countries where 'suitable' land with high ecological and economic potential can be found (Fisher and Sahah 2010 as quoted in Deininger et al. 2011).

Two recent World Bank reports (2007, 2011) have identified oil palm cultivation and processing as a potential "win-win" rural development strategy. It has been argued that oil palm can generate employment in poor regions, thus alleviating poverty and contributing to secure access to food through increased income (World Bank 2007; FAO 2010a; Deininger et al. 2011). It has also been claimed that oil palm can foster national economic growth through increased exports driven by demand for biofuels in the European Union (EU) and the United States (USA). This is related to renewable energy targets (Pehnelt and Vietze 2013; Germer and Sauerborn 2007), the gradual replacement of edible oil of soybean by palm oil in the EU and USA (USDA 2010), and the demand for other diverse uses, including soap and cosmetics (Wakker 2006). Finally, it has also been suggested that, if accompanied by national biofuel blending mandates in producing countries, palm oil could contribute to reduce dependence on imported fossil fuels (World Bank 2011).

However, these claims have already been challenged from environmental and social perspectives (Tabla 6.1). Studies focusing on environmental effects have warned about the negative impacts of large-scale oil palm cultivation, including biodiversity, forest and carbon losses (Fayle et al. 2010; Höbinger et al. 2011), soil degradation (Firdaus et al. 2010; Smith et al. 2012a), and air pollution (Achten and Verchot 2011). Social science scholars have compared the costs and benefits experienced by households and families involved in oil palm cultivation as cultivators and employees (Obidzinski et al. 2012), and compared outcomes across different cash crops cultivated by farmers (Rist et al. 2010; Feintrenie et al. 2010; Belcher et al. 2004). These studies generally suggest that oil palm cultivation can contribute to rural development by providing positive economic returns to local populations. However, they have also identified a number of negative social impacts, including land tenure conflicts, the loss of tenure or access rights and other conflicts resulting from migration of employees and exploitative labor conditions (Koczberski and Curry 2004, McCarthy 2010, Sandker et al. 2007). Additionally, it has been found that women often suffer these impacts disproportionately (Julia and White 2012). It has been suggested that the realization and/or distribution of such benefits and costs very often depend on (1) land tenure security (German et al. 2011; Phalan 2009); (2) the adopted production model (Gasparatos et al. 2011), and (3) whether a gender and distributive perspective is included in related land investments (Behrman et al. 2012). Altogether, these findings suggest that the aggregate and distributional outcomes of cultivating or working in oil palm may differ considerably across production models, farming scales and households (Creutzig et al. 2013).

Tabla 6.1 Studies analyzing impacts of oil palm plantations on the basis of a search conducted in the Web of Science (http://www.accesowok.fecyt.es/) during the period 2000-2012. The keywords used in the search are "oil palm" and "effect or impact"

Source	Continent	Case Study	Effect on:		Methods	
			Ecosystems	*Social Systems*	*Quantitative/Qualitative*	*Specific Methodology*
Broadben et al. (2012)	Latin America	The Manuel Antonio region (Costa Rica)	Biodiversity		Quantitative/Qualitative	Remote sensing
Cárdenas (2012)	Latin America	Mira river (Colombia)		Black communities	Qualitative	-
Höbinger et al. (2012)	Latin America	La Gamba (Costa Rica)	Biodiversity		Quantitative	Remote sensing
Julia and White (2012)	Asia	Kalimantan (Indonesia)		Gender and land tenure	Qualitative	-
McCarthy et al.(2012)	Asia	Indonesia		Social	Qualitative	-
Obidzinski et al.(2012)	Asia	Papua and Kalimantan (Indonesia)	Soil degradation and pollution	Rural farmer economies and land tenure	Qualitative/Quantitative	Household surveys, focus groups, interviews and remote sensing
Smith et al. (2012)	Asia	Selangor (Malaysia)	Soil carbon storage		Quantitative	Laboratory analysis
Achten and Verchot (2011)	Asia	Papua and Kalimantan (Indonesia) and Sabah (Malaysia)	Greenhouse emissions		Quantitative	Interviews and remote sensing
Babel and Perret (2011)	Asia	Khlong Phlo (Thailand)	Hydrological		Quantitative	The Soil and Water Assessment Tool (SWAT)
Edwards et al. (2011)	Asia	Sabah (Malaysia)	Biodiversity		Quantitative	Biological sampling
Fayle et al.(2010)	Asia	Sabah (Malaysia)	Biodiversity (arthropods)		Quantitative	Biological sampling
Feintrenie et al. (2010)	Asia	Sumatra (Indonesia)		Conflicts and land tenure		Household surveys, semi-structured interviews
Firdaus et al. (2010)	Asia	Batang Igan, Sibu, Sarawak (Malaysia)	Soil degradation		Quantitative	Biological sampling
McCarthy (2010)	Asia	Sumatra (Indonesia)		Livelihood	Qualitative	-
Murdiyarso et al. (2010)	Asia	South-East of Asia	Greenhouse emissions		Quantitative	Literature Review
Rist et al. (2010)	Asia	Sumatra and		Rural farmer	Qualitative/Quantitative	Household surveys and

Source	Continent	Case Study	Effect on:		Methods	
			Ecosystems	*Social Systems*	*Quantitative/Qualitative*	*Specific Methodology*
		Kalimantan (Indonesia)		economy and conflicts		observation
Turner and Foster (2009)	Asia	Sabah (Malaysia)	Biodiversity (arthropods)		Quantitative	Biological sampling
Danielsen et al.(2008)	Asia	Indonesia	Greenhouse emissions and biodiversity		Quantitative	Carbon Balance Meta-analysis Biological sampling
Sandker et al. (2007)	Asia	Kalimantan (Indonesia)		Migration and local economy	Quantitative/Qualitative	Deliberative modelling
Helson (2005)	Asia	Malaysia	Carbon Storage and greenhouse emissions		Quantitative	Carbon balance
Belcher et al. (2004)	Asia	Kalimantan (Indonesia)		Local economy	Quantitative/Qualitative	Focus groups and interviews

Social research on oil palm cultivation lacks comprehensive assessments of how it is affecting households' wellbeing, particularly in Latin America, since most studies have focused at community and producers' levels and have been mostly developed on Asian countries (Tabla 6.1). We attempt to fill these gaps by developing an integrated methodological framework that allows examining how the expansion of oil palm plantations influences rural households' wellbeing in the Polochic valley of Guatemala, a country home to many Mayan indigenous communities and that has seen oil palm cultivation increase by 587% in the last decade (Alonso-Fradejas 2012). We analyse household socio-economic differences in two Q'eqchi' communities that have developed distinctive agricultural strategies by either cultivating maize for self-consumption and commercialisation or working in oil palm plantations while still cultivating maize for self-consumption. We analyse the implications of the combined effect of labouring in oil palm plantations and land access, and we discuss how these implications affect households' wellbeing. We conceptualise the latter as a multidimensional condition that transcends households' material and economic poverty (Scheidel 2013) and results from the combination of different dimensions, including basic materials for a good life, health, security, freedom of choice, good social relations, and spiritual or sacred values (MA 2005; UK NEA 2011).

The following section reviews Guatemala's agrarian history and describes the expansion of oil palm plantations and their effect on the country's economy and land tenure dynamics. Section 3 describes the Polochic valley and the two communities selected for the study and it introduces the article's methodological and analytical approach. Section 4 presents the results, and Section 5 discusses them in the light of ongoing debates about the costs and benefits experienced by rural households working in oil palm plantations. The concluding section emphasizes the added value of a wellbeing lens to understand oil palm effects on rural households and it suggests a number of areas for future enquiry.

6.2. Guatemala's unequal land distribution and the oil palm boom

Guatemala's agricultural sector represents 13% of the country's Gross Domestic Product (GDP) (BANGUAT 2010). In 2012, Guatemala ranked 133 out of 186 countries listed in the Human Development Index (HDI), being one of the last countries in the Medium HDI category and scoring way below the average for Latin American and Caribbean countries (0.58 versus 0.74) (UNDP 2013). According to the latest population census, 51% of their 13 million people live below the poverty line, i.e., USD 243.44 per capita[22]. Seven out of ten poor people live in rural areas and six of these are indigenous. Of the country's 24 ethnic groups, 22 are Mayan and represent more than 60% of the total population (INE 2006). There is considerable inequality when it comes to land tenure: For instance, in the case of maize producers, more than 50% of land dedicated to production is owned by less than 2% of producers, who are classified under the category of "*commercial*" in national statistics (Tabla 6.2) (INE 2004). Guatemala is

[22] General poverty lines calculated by an inter-institutional technical team of INE, Planning Secretariat of the Presidency (SEGEPLAN), with the assistance of World Bank.

the most unequal country in Central America with a 0.84 Gini coefficient[23] of land concentration (FAOb 2010).

Tabla 6.2 Number of maize producers, cultivated surface and production by each category of producers in Guatemala. Source: Agriculture Census of Guatemala INE (2004)

	No. of producers (Thousands)	Surface (Thousands hectares)	Production (Thousands tons)	% of land	% of producers
Marginal (<0.7 ha)	375.71	120.48	171.72	3.24%	45.23%
Subsistence (0.7-7 ha)	388.98	691.67	583.76	18.62%	46.83%
Surplus (7-45 ha)	50.53	800.35	185.59	21.55%	6.08%
Commercial (>45 ha)	15.47	2102.22	132.85	56.59%	1.86%
Total	830.69	3714.72	1073.91	100.00%	100.00%

The country's agricultural development model has been traditionally based on export-oriented monocultures. This model can be traced back to the 1870s liberal reforms and the privatisation and dispossession of indigenous communal lands (Taracena and Ruano 2001). Oligarch families have historically controlled agricultural development and six of these presently own the entire oil palm industry (Hurtado 2008; Solano 2011). By 2010, the area sown with oil palm occupied more than 90,000 hectares and 78% of the latter is located throughout the Northern Lowlands region across the departments of Alta Verapaz, Izabal, Quiché, and Petén where subsistence farming is also present (Alonso-Fradejas 2011). According to the Ministry of Agriculture Livestock and Food, around 743,000 hectares are still available for oil palm cultivation (Ribeiro 2007).

Guatemala exports 70% of its average 150,000 tons/year of crude oil palm production to international markets, mostly to other Central American countries and Mexico, which together account for 50% of the exports (Solano 2009). The rest of the production is processed in Guatemala into edible oil and soap. In fact, the profitability of edible oil trading explains why biodiesel has not yet been produced in the country to date (Alonso-Fradejas et al. 2008), and this is despite claims that Guatemala has potential to be one of the most efficient producers of biofuels in Latin America (USDA 2010). The country's National Food Security Strategy (2009-2012) considers that oil palm expansion can contribute to increase rural people's access to jobs and to alleviate poverty (PESAN 2009) but, as for other countries, the realization of these and other livelihood outcomes are likely to result from the interplay between the type of producers (e.g., private companies or individual farmers), the incentives provided by the state, the cultivation scale and existing land tenure arrangements (Alonso-Fradejas et al. 2012; Creutzig et al. 2013).

In Guatemala, oil palm cultivation has expanded at the expense of the country's tropical forests, wetlands and subsistence agricultural land (Alonso-Fradejas, 2012). This has occurred prominently through two key deployment models that involve farmers, the state and agribusiness companies in different ways and to different degrees. The first

[23] Gini coefficient equal to 0 represents perfect equality, whereas a coefficient of 1 represents extreme inequality.

model is articulated around a state program known as *ProMaíz* that is in turn embedded in a wider policy framework known as *ProRural*. Besides promoting maize, and beans cultivation, *ProMaíz* also supports oil palm cultivation across farmers holding legal property rights over no less than 5.6 and no more than 10.5 hectares (Hernández and Castañeda 2011). *ProMaíz* targets prominently the departments of Alta Verapaz and Quiché (PESAN 2009; ProRural 2009) and, between 2008 and 2011, it has supported the planting of more than 2,000 hectares of oil palm and involved 300 farmers across these two departments (ProRural 2010; El Observador 2013). *ProMaíz* covers farmers' up-front costs related to topographic works, oil palm seedlings, sowing and fertilizing until palms reach productive age, while guarantees that certain farmers' associations can provide them with soft loans for covering any other additional management costs incurred in operation. In return, farmers commit, first, to cultivate over the estimated 25-year period, after which the harvest becomes unfeasible because of palms' excessive height; second, they commit to sell the fruit only to the contracting oil palm mill; and, last, they commit to assume all risks related to cultivation, such as potential poor harvests and land fertility loss. Under such conditions, oil palm cultivation remains a risky business for most farmers since the palm variety promoted under this governmental program only starts producing fruit after the fourth year of cultivation and companies require certain quality standards. Moreover, gate prices are subject to the vagaries of the international market (Alonso-Fradejas 2011; Solano 2009).

In the second model the state plays a minor role and involves agribusiness companies more prominently (Hurtado 2008; Alonso-Fradejas et al. 2011). In some of the country regions[24], and with the connivance of the state, companies have employed economic or coercive mechanisms to gain access to land and they have for instance bought peasant farms or forced indigenous communities to sell and migrate (Alonso-Fradejas 2011, 2012). In other regions, as it is the case for the Polochic valley, companies have purchased or leased land from cattle ranchers who did not originally hold formal property rights. Cattle ranchers have thus been able to legalize such rights before selling and hence have been able to get more money from the land than they originally expected. Households living in the ranches have often remained on-site and have become employees in oil palm plantations, but others have moved and settled elsewhere (Mingorría and Gamboa 2010). Other surrounding communities have decided to get involved in labouring for oil palm plantations, as it is the case for one of the two researched communities.

6.3. Case study and methods

6.3.1. The Polochic valley and the two selected communities

The two communities selected for this study are located in the Polochic valley, which cuts across the departments of Alta Verapaz and Izabal (Figure 1). This north-eastern region of Guatemala hosts a high number of agrarian conflicts (SAA 2010). The expansion of sugarcane and oil palm plantations clashes with conservation efforts, basic grains crops cultivated by indigenous communities, tourism development initiatives and the efforts of trafficking groups to control land (Mingorría and Gamboa 2010). About 220,000 people inhabit the valley and rely on subsistence agriculture (INE 2002).

[24] Ixcán (Quiché), Chisec, Fray Bartolomé de las Casas (Alta Verapaz), and Sayaxché (Petén)

Eighty-nine per cent are indigenous Maya *Q'eqchi'* and the rest are Mayan *Poq´omchi´* and *mestizos* (i.e., people with both Spanish and indigenous origins) (INE 2006). Forty per cent of the population lives in 220 communities scattered across the valley and the rest live in the towns of *Tamahú*, *Tucurú*, *La Tinta*, *Senahú*, *Panzós* and *El Estor*.

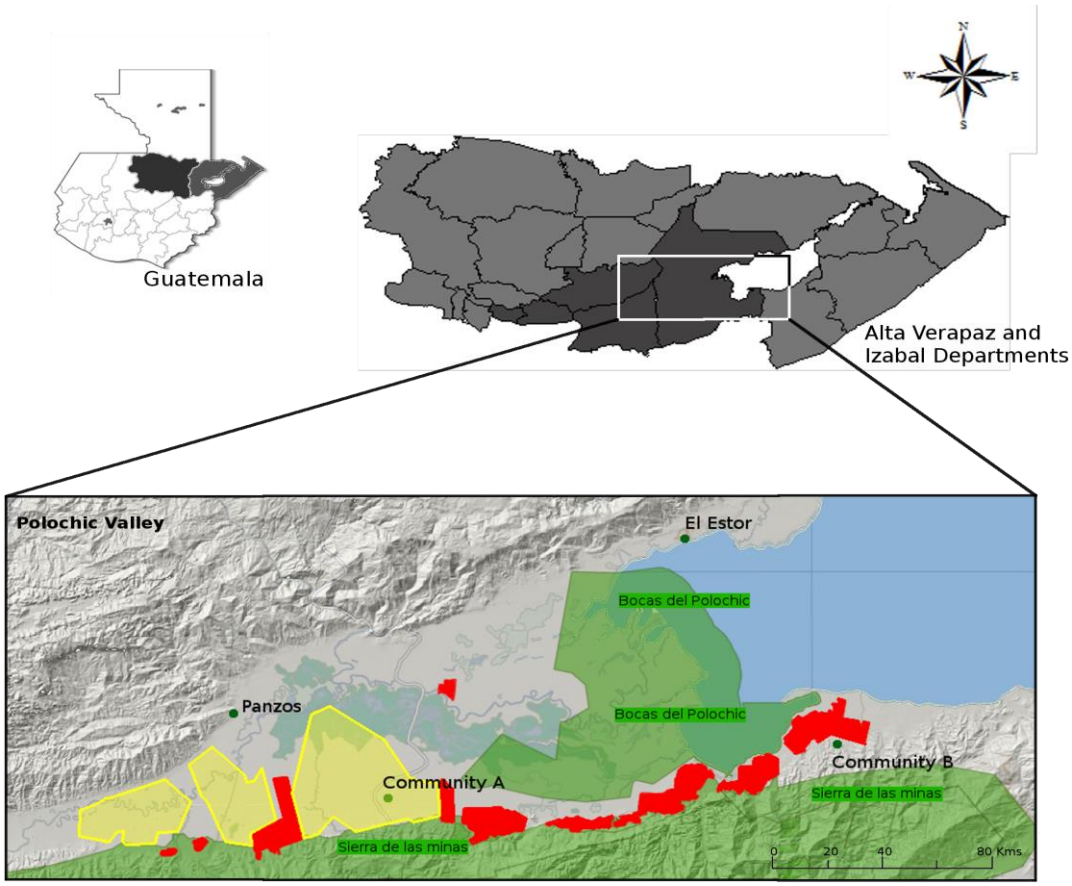

Figura 6.1 The department of Alta Verapaz and Izbal are located in Northwestern Guatemala. The Polochic Valley and the location of the two communities selected for the study (Community A and Community B). The red area represents the oil palm plantations, the yellow area represents the sugar cane plantations and the green area demarcates the Sierra de las Minas and Bocas del Polochic protected areas. We indicate as well the capitals of Alta Verapaz (Panzos) and Izabal (Estor)

Since the 1890s, large farms have dominated the valley's landscape. The liberal government of the time granted large state farms to German families, who started growing export-oriented crops such as coffee, cotton and banana. Land was originally inhabited by Maya *Q'eqchi'* people, who were forced to migrate or become *mozos colonos*, i.e., people who worked for the landowner in exchange for a small plot of land where they could cultivate subsistence crops. Since then, land claims by the *Q'eqchi'* have been ignored and often violently repressed (Grandia, 2006). Coffee farms and livestock raising were affected by the coffee crisis of the early 2000s and thereafter by the decrease of meat prices (Wagner 2001) and most of the valley is now dominated by sugarcane and oil palm plantations and less so by cattle farms (Solano and Solís 2010).

Since 1998, a descendant German family manages 8,500 hectares of cultivated oil palm plantations, representing almost three-quarters of the valley's most fertile land, and the

sugarcane industry has expanded over more than 5,000 hectares since 2005, (Alonso-Fradejas et al. 2008; Mingorria and Gamboa 2010; Alonso-Fradejas et al. 2011). Most *Q'eqchi'* communities continue to farm for subsistence in large land holdings owned by cattle ranchers and do not hold any formal land rights. In fact, less than 10% of the Polochic's indigenous communities have land titles, and the latter have been granted mostly in areas of limited productive interest for agricultural business, including the steepest and less fertile slopes. Some lands in the fertile areas of the valley are in dispute between agricultural business and communities and, subsequently, their uses and owners are changing rapidly and conflicts abound (Solano and Solís 2010; Alonso-Fradejas 2012).

For this study, we chose neighbouring communities to avoid that geographical and biophysical differences that can affect the accuracy of comparative analysis i.e., differences in access to infrastructure, climate conditions or fertile lands (Figure 1). Community A is located in the lower part of the valley, surrounded by the protected area of *Sierra de las Minas* and large farms to be devoted to sugarcane plantations and controlled by a private sugar mill established in 2005. These developments have constrained the community's ability to access and cultivate more surrounding lands. In 1972, 20 families distributed land according to the household's ability to pay for the engineer who measured land plots, which was a prerequisite for the titling process. Currently, however, the community and its families do not count with any formal land title and the internal land distribution processes has also stopped. This has led to a situation of increasing demographic pressure over land resources, wherein young families had to rent land within and outside the community. These households can be characterized as smallholders producing maize for subsistence and surpluses for the market, who were neither working in oil palm nor in sugar cane plantations at the time fieldwork was carried out. Community B is also located in the lower part of the Valley, surrounded by the protected area of *Sierra de las Minas* and by oil palm plantations. In 1960, 29 families settled on uncultivated land and distributed it equally among them, i.e., 13 hectares for each family. They fenced parcels of land to prevent others' access and discarded using land for common use. At present, the community brings together 68 families from old and young generations of the original households as well as other Q'eqchi families who have arrived from elsewhere looking for land. Half of today's households access land through internal rent arrangements or labouring for others. The community has claimed property titles since the 1960s but existing conflicts over the establishment of land boundaries with surrounding plantations has brought the process to a standstill. Somewhat ironically, a majority of households work in such plantations as fruit cutters, i.e., a job usually given to men between the ages of 14 to 30, but continue to plant maize for subsistence purposes.

6.3.2. Data collection and sampling

Data were collected between 2009 and 2011 in three non-consecutive fieldwork periods, using a mixed methodological approach that involved semi-structured and in-depth interviews and questionnaires (Huntington 2000). In the first period (from March to June 2009), we conducted 12 semi-structured interviews with indigenous leaders, NGO members and representatives of peasant movements involved in the valley's land struggles. In the second period (from July to November 2009), we interviewed male and female leaders from the two selected communities and we conducted 14 in-depth interviews. In both cases, we used a snowball sampling technique to identify additional informants, i.e., we asked people to name others who could be contacted for their knowledge about the working conditions in the plantations or for their participation in

land struggles. Interviews at community level were structured in five sections: (1) the main productive and reproductive activities of the household; (2) the agricultural season calendar; (3) the traditional and formal rules underpinning natural resource management; (4) the socio-environmental history of the communities; and (5) the main constraints to fulfil their development needs and aspirations.

In the third period (from May 2010 to February 2011), we conducted 10 intermittent field visits, each lasting 15 days, and deployed 140 surveys in the two selected communities, with households selected randomly in both settings (Tabla 6.3). The questionnaires were piloted in both communities and structured in five sections: (1) household's demographic structure; (2) land uses; (3) income level and income-generating activities; (4) household expenditure; and (5) the time use pattern of individual household members. Our observations confirmed that the household was the *Q'eqchi'* insitution where decision-making related to agricultural, labor, and economic domains take place, whilst political and spiritual life is dealt with at community level (Grandia 2006). Therefore, the household was selected as a unit of analysis: we interviewed both female (*N*=70) and male household heads (*N*=70) and we collected information on all household members. Participant observation during the whole research process contributed to validating the surveys' approach and subsequent results.

Tabla 6.3 Number of sampled households in each community

		Total number of households interviewed		**Total number of households**
No oil palm (Community A)	No land	12	40	91
	Land	28		
Oil palm (Community B)	No land	10	30	68
	Land	20		

6.3.3. Data analysis

As noted above, the household is our basic analytical unit and it is understood as a family-based social group that occupies and maintains its physical domains as well as organises and operates labour productivity (Netting 1993). In rural contexts, a significant share of a household's agricultural production is allocated to members' consumption while the other share is exchanged for money or other products to complement consumption requirements and other needs. Consumed resources are used both in reproduction processes and to carry out other activities in the domestic and social realms (Chayanov 1974).

Our research is based on a six-stage analytical process. First, interviews helped us identifying a set of *attributes* (i.e., observable qualities that allow characterizing a system under analysis) and gathering knowledge about the communities' socio-economic and cultural context. We complemented such attributes with those that global institutions such as the World Bank (WB) and the Food and Agriculture Organization of the United Nations (FAO) and the emerging literature on oil palm expansion have considered important to analyse rural transformations and livelihoods (see Sources (A) in figure 2). Subsequently, we added any missing attributes by asking three key questions in societal metabolism research, i.e., what the household system is, what it does, and how it does what it does (Giampietro et al. 2009). We also added gender attributes to complete the list. Figure 2 shows the process for defining attributes (B).

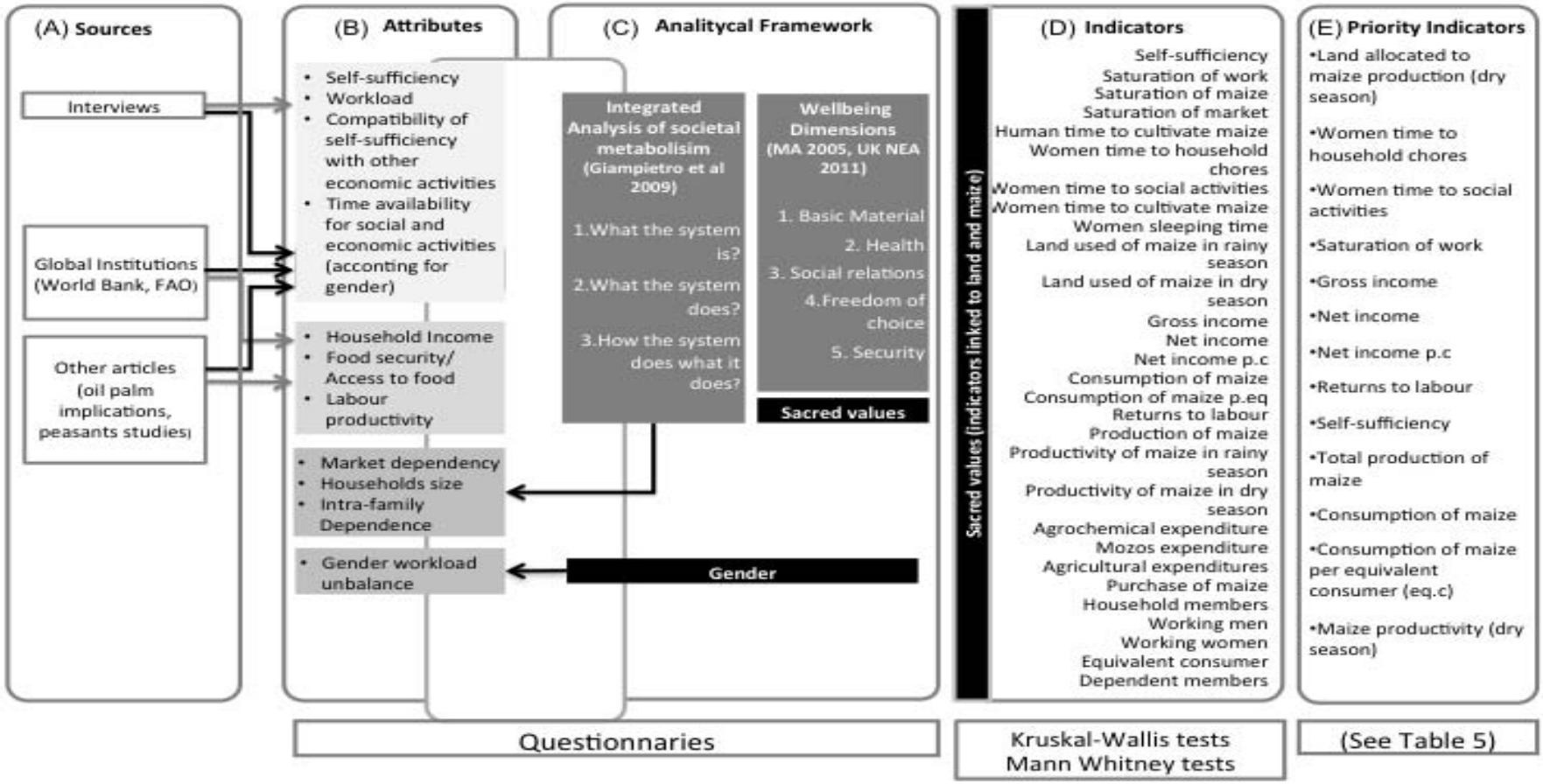

Figura 6.2 The Analytical Strategy Sequential Process. (A) Sources, (B) Attributes, (C) Analytical Framework, (D) Indicators, and (E) Priority Indicators

Second, we translated these attributes into a set of 29 indicators (Tabla 6.4 and Figura 6.2). Following Giampietro et al. (2009)[25], we distinguished between extensive and intensive indicators. The former are those that add and give information about the size of the household and can be classified in either structural, i.e., those describing *what the system is* (e.g., demographic, land and time uses), or functional, i.e., those that describe *what the system does* (e.g., income, expenditures, production and consumption of maize). In turn, intensive indicators describe how *intensively* the household and its different activities, such as wage labour, domestic, and social activities, are performing, i.e., *how the system does what it does*. Similar to extensive indicators, intensive ones can also be classified in structural and functional terms. Here, structural indicators reveal the burden on a particular element of the household system (e.g., workload or self-sufficiency), while functional indicators describe the controlled flows of matter and added value per unit of land and time (e.g., labour return, consumption of maize equivalent consumer or productivity of land).

Third, to explore the joint effect of working in an oil palm plantation and access to land over households' wellbeing, we classified the households in four categories: (1) Households with land and living in Community A (i.e., *No oil palm work – Land* category); (2) Households without land and living in Community A (i.e., *No oil palm work – No land* category); (3) Households with land and living in Community B (i.e., *Oil palm work – Land* category); (4) Households without land and living in Community B (i.e., *Oil palm work – No land* category). We defined these groups considering the bundles of rights that families in these communities hold over their land plots (Ostrom and Schlager, 1996), differentiating between households with community sanctioned land rights and those without. Households "with land" belonging to the *Land* category hold all bundles of rights over their plots except alienation but they do not have a legal title recognized by the state. Households "without land" belonging to the *No land* category have access to land through borrowing or leasing from the first group but do not hold exclusion and alienation rights. In the hypothetical case that the community's property rights were recognised by the state in the future, we presume that only the first group of households will obtain a formal title over their family-managed plots.

Fourth, to test differences among four households' types in each of the multi-dimensional indicators considered (Tabla 6.4), we used the non-parametric Kruskal–Wallis test followed by Dunn's multiple comparison tests. In addition, to explore gender differences in time allocation for sleeping and social activities, we carried out a Mann-Whitney test. We could not compare tasks performed by women (e.g., domestic chores) or men only (e.g., sowing maize). To calculate the households' time use, we assumed that all activities were carried out separately, hence disregarding multi-tasking. This is a caveat of our study since we did not consider, for example, the fact that women often take care of children while attending the community's assembly. Additionally, we analysed male and female leaders' discourses related to questions (3) and (5) in the semi-structured interviews (see quotes in section 6.8 Annex). We explored in depth the traditional and formal arrangements governing natural resource management in the

[25] It involves using an accounting framework that uses human activity instead of per capita figures. Here, human activity is measured in hours (a person has a budget of 24 hours per day to allocate to different activities). The main advantages of using hours to represent human activity are the following: it allows to keep track of the activities developed by the society; we can scale up and down indicators, i.e., aggregate them across scales; and they represent demographic and institutional information (e.g., workload).

communities, and the main constraints on fulfilling their development needs and sacred values. In doing so, we were able to interpret the implications of changes in the external political and economic conditions that could affect the homes and communities of the Q'eqchi' living in the Polochic Valley.

Tabla 6.4. Multi-dimensional indicators for understanding rural systems and being relevant to household's members.These criteria were classified by intensive or extensive and structural or functioning following Giampietro et al. (2009)

Name	Categories	Units	Descrption
Demographic			
Household members	Extensive/Structural	Nº	Total number of household members
Working men	Extensive/Structural	Nº	Number of men between 10 and 50 years old
Working women	Extensive/Structural	Nº	Number of women older than 10 years old
Equivalent consumer	Extensive/Structural	Nº	Men older than 50 years old are 0,8 equivalent consumer; between 15 and consumer, between 9 and 15 years old are 0,75 equivalent consumer, betw equivalent consumer, between 2 and 5 years old are 0,3 equivalent consu years old are 0,1 equivalent consumer Women older than 50 years old are 0,7 equivalent consumer; between 15 consumer, between 9 to 15 years old are 0,7 equivalent consumer, betwee equivalent consumer, between 2 to 5 years old are 0,3 equivalent consum old are 0,1 equivalent consumer Adapted from Hammel (2005)
Dependent members	Intensive/Structural	%	The ratio between dependent household members (members who are not in working age) and total of household members in working age
Land use			
Land used of maize in rainy season	Extensive/Structural	Ha/year	Land area cultivated with maize in the rainy season
Land used of maize in dry season	Extensive/Structural	Ha/year	Land area cultivated with maize in the dry season
Time use			
Human time to cultivate maize	Extensive/Structural	Hrs	Human activity (HA), considering both family and external labour, allocated to maize production (HA_maize)
Women time to household chores	Extensive/Structural	Hrs	Women activity allocated to household chores (e.g., preparing meals, washing clothes)
Women time to social activities	Extensive/Structural	Hrs	Women activity allocated to social activities (e.g., going to assemblies, participating to women's committee)
Women time to cultivate maize	Extensive/Structural	Hrs	Women activity allocated to harvest maize
Women sleeping time	Extensive/Structural	Hrs	Women activity allocated to sleep
Workload			
Saturation of work	Intensive/Structural	%	Workload (HA_work) including household chores, agricultural production (cash crops and self-sufficiency), paid work and collective projects, over human disposable activity (HDA) of household' members of working age per year
Saturation of maize	Intensive/Structural	%	Share of human activity allocated to production for maize consumption (HA_Subs), with respect to the human disposable a activity (HAD)

Name	Categories	Units	Descrption
Saturation of market	Intensive/Structural	%	Share of human activity allocated to production of cash crops (HA_CashCrops), and paid work (Ha_Pw) including maize production and cardamom, with respect to human disposable a activity (HAD)
Income, expenditures, self-sufficiency and maize productivity			
Gross income	Extensive/ Functioning	Q	Income from: land rents, "*Mi familia progresa"* program, cash crops (maize, beans and rice), the sale of animals and wage labour
Net income	Extensive/ Functioning	Q	Total of gross income less expenditures
Net income p.c	Intensive/ Functioning	Q p.c	Economic poverty of the household
Returns to labour	Intensive/ Functioning	Q/Hr	Economic labour productivity. Net income gained per hour worked
Agrochemical expenditure	Extensive/ Functioning	Q	Expenditure in fertilizers and pesticides that were used for maize planting
Mozos expenditure	Extensive/ Functioning	Q	Payment of wage labour in maize-related activities. The cleaning, planting, harvesting and maintenance in the rainy season (the season most productive in the year)
Agricultural expenditures	Extensive/ Functioning	Q	Expenditure in agrochemicals and mozos for maize production
Purchase of maize	Extensive/ Functioning	Q	Expenditure in maize bought from market
Production of maize	Extensive/ Functioning	Kg	Total maize production
Self-sufficiency	Intensive/ Functioning	%	Percentage of maize obtained from self-supply with respect to the total amount of maize consumed
Consumption of maize	Extensive/ Functioning	Kg	Produced and purchased maize
Consumption of maize p.eq	Intensive/ Functioning	Kg p.eq	Produced and purchased maize per equivalent consumer
Productivity of maize in rainy season	Intensive/ Functioning	Kg/Ha	Production of maize in the least productive season per land dedicated area
Productivity of maize in dry season	Intensive/ Functioning	Kg/Ha	Production of maize the most productive season per land dedicated area

Fifth, we used the Millennium Ecosystem Assessment (MA) framework to explore the effect of working in an oil palm plantation on human wellbeing (MA 2005; UK NEA 2011). We chose this framework because (1) it is based on a multidimensional analytical approach that considers most of the central pillars of wellbeing theories, such as basic material conditions, health aspects, social relations, freedom of choice and human security; (2) it can relate with the attributes identified by the communities through both interviews and literature (Figure 2), and (3) it has been used for analyzing the effects of specific land-use and other policies (Foley et al. 2005, Tallis et al. 2008, Raudsepp-Hearne 2010, Santos-Martín 2013).

Finally, we identified a subset of indicators (13 out of 29) to be more directly related to the wellbeing components of the MA framework and to facilitate data interpretation[26] (Tabla 6.5).

[26] According to Miller (1956), quoted in Bouyssou, (1990) the number of indicators should not be higher than a dozen, due to human capacity to process information

For example, we considered available productive factors controlled by the household as indicators of the necessary material conditions for household wellbeing, including *land* and *human time* which act as principal constraints to household development (Grunbuhel and Schandl 2005), and *income* or *income per capita* as a key complement of peasant economies (Chayanov 1974; Boserup 1990). We also included indicators related to nutrition, health and (food) security, such as *total production of maize*, *consumption of maize eq.c* and *self-supply* (Gasparatos et al. 2011). We related the indicator *saturation of work* to the perception of not having time to rest, which has an indirect impact on an individual's health condition. And we related *women time to household chores* to freedom of choice, insofar as it indicates the amount of time that women can dedicate to the community, thereby participating in and further legitimizing collective decisions (Agarwal 2000). Finally, the sacredness dimension of maize cultivation was related to basic material conditions and security components of wellbeing as suggested by different interviewees (Interviews B9, A1, A3, and A4 in section 6.8 Annex).

Tabla 6.5. Relevant indicators associated with wellbeing components identified by the MA (2005)

Indicators used*	**Human wellbeing component based on MA (2005)**					**Comments**
	Basic material	***Health***	***Social relations***	***Freedom of choice***	***Security***	
Land used of maize in dry season	X					
Women time to household chores	X	X		X		*Women time to household chore* relates to women's freedom of choice because women surveyed often claimed: "We have no free time" or "There are no days to rest" (Interviews A1_B5)
Women time to social activities	X		X	X		*Women time to social activities* relates to social relations and freedom of choice because women lack of involvement in community activities has detrimental effects on community organisation (Agarwal 2000)
Saturation of work		X		X		*Saturation of work* relates to health and freedom of choice because households that allocate most of their available human time to work reduce their available time for other activities, such as taking care of themselves or maintaining social relationships even if they wished to. The intensity of the job incurred can also impact negative on an individual's health (Gasparatos et al. 2011)
Gross income	X					
Net income	X					
Net income p.c	X				X	*Net income p.c* relates to security because households with higher net income p.c can diversify their diet buying a larger variety of food products in the market, as well as they are less vulnerable to price shocks in the maize market
Returns to labour	X			X		*Returns to labour* is related with basic material and freedom of choice because, on the one hand, it is associated with the net income gained per hour worked (basic material) and, on the other, it can lead the household to work less if the gain obtained is sufficiently high
Self-sufficiency	X				X	
Production of maize	X					

Indicators used*	**Human wellbeing component based on MA (2005)**					**Comments**
	Basic material	***Health***	***Social relations***	***Freedom of choice***	***Security***	
Consumption of maize	X					
Consumption of maize p.eq	X				X	*Consumption of maize (eq.c)* is related to security because we narrowly consider security as food security (Gasparos et al. 2011)
Productivity of maize in dry season	X				X	*Maize productivity* is related to security because we consider that higher levels of productivity are more likely to guarantee the household's self-sufficiency

* The indicators associated with basic materials (productive resources) and security (food security) also included the component of sacred values because they incorporated the sacredness of land and maize, respectively, as were expressed by interviewees (see Interviews B9, A1, A3, and A4 in section 6.8 Annex).

6.4. Results

We present below households' socio-economic differences across selected indicators, distinguishing between structural and functional indicators, and complementing the results with interview-based and focus groups' qualitative information. The results correspond to the fourth of the analytical steps highlighted above while the implications for wellbeing are discussed in section 5.

6.4.1. Structural differences among households

Nonparametric analysis shows the joint effect of households' land availability with labouring activity in oil palm plantations on structural indicators. Significant differences exist across the four household categories, but such differences are not homogeneous. Land is the variable that mostly affects the number of *working men* and w*orking women*, *equivalent consumer* and *household members*. Households with land have significantly more number of *working men* and *working women*, which means that these households have more time available for productive and reproductive activities. However, these households also have more *household members* and *equivalent consumers* than other households without land, which means that the consumption share of the household is also larger than that of those without land. Also, there are significant differences in the *percentage of dependent members*. Households without land and not involved in oil palm plantations are those with a significantly higher number of members who are not in working age and are thus dependent from other household members (Tabla 6.6).

We find differences in land and human time used to cultivate maize across household categories. In both communities, households owning land allocate a significant larger share of the latter to maize cultivation during the dry season than those borrowing or leasing. During the rain season, however, Community B households working in oil palm plantations allocate more land to maize cultivation than Community A households. This is so because some land areas in Community A are often flooded during this time of the year thus reducing the share of land dedicated to crops. We also observe that households working in oil palm plantations allocate significantly less *human time to cultivate maize* than others (Tabla 6.6) due to the fact that oil palm cultivation overlaps with the process of sowing, cleaning and harvesting the maize crop (Figura 6.3). Consequently, household members must prioritize in which livelihood activity they concentrate on. Oil palm workers dedicate 15 days for harvesting the palm fruit followed by another 15 days off work, and this working cycle repeats itself throughout the whole year (Interview B_8 in section 6.8 Annex).

Tabla 6.6. Mean values and statistical differences for household structure: Demographic and land and time used, based on Kruskal Wallis test

	No oil palm/land		No oil palm/no land		Oil palm/land		Oil palm/no land		Kruskal Wallis test	
	Mean	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	**$\chi 2$**	**p-valor**
Demographic										
Household members	6.46A,B	2.58	3.83A	2.56	8.17 B	2.15	4.10A	0.87	21.61	<0.001
Working men	1.76 A,B	1.04	1.66 A.B	1.50	2.58 B	1.62	0.90 A	0.31	13.05	0.005
Working women	1.96 A,B	1.10	1.16A	0.63	2.64B	1.27	1.11A	0.31	17.47	0.001
Equivalent consumer	4.17B,C	1.75	2.90A,B	1.82	5.63C	1.77	2.30A	0.40	21.78	<0.001
Dependent members	0.882B	0.547	0.217A	0.271	0.662A,B	0.431	1.050B	0.438	12.90	0.005
Land Used										
Land used of maize in rainy season	0.51 A	4827.72	0.26 A	3094.09	1.10 B	4753.37	0.579 A,B	4324.27	18.44	<0.001
Land use of maize in dry season	1.27 B	6529.35	0.94 A,B	8092.25	1.50 B	5270.55	0.66A	3856.48	15.42	0.001
Time use										
Human time to cultivate maize	709.61B	561.50	668.92A,B	648.64	937.38B	928.78	254.22A	280.04	15.16	0.002
Women time to household chore	2796.88A	900.57	2083.45A	754.22	3513.19B	754.37	2131.96A	608.87	24.81	<0.01
Women time to social activities	429.06A	205.48	254.66 A	130.94	286.23 A	251.55	236.40 A	208.09	7.64	0.059
Women time to cultivate maize	32.70 A	60.40	58.00 A	90.57	66.35 A	110.18	19.86 A	48.14	1.21	0.750
Women sleeping time	2603.66 A	490.94	2433.33 A	537.26	2522.79 A	452.74	2710.12 A	243.52	1.597	0.660

Tabla 6.7. Mean values and statistical differences for saturation of time and productivity time based on Kruskal Wallis test. Mean values marked with the same letter are not significantly different (Dunn's test; *p*-value < 0.05)

	No oil palm/land		No oil palm/no land		Oil palm/land		Oil palm/no land		*Kruskal-Wallis test*	
	Mean	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	χ^2	***p-value***
Workload										
Saturation of work	0.56^{A}	0.12	0.59^{A,B}	0.22	0.53^{A}	0.15	0.79^{B}	0.10	17.27	0.001
Saturation of maize	0.04^{B}	0.02	0.05^{B}	0.03	0.04$^{A, B}$	0.03	0.03^{A}	0.03	7.79	0.050
Saturation of market	0.10^{A}	0.06	0.09^{A}	0.04	0.13^{A}	0.12	0.22^{A}	0.12	9.71	0.021

Tabla 6.8. Mean values and statistical differences for expenditures, income, consumption and productivity based on Kruskal Wallis test. Mean values marked with the same letter are not significantly different (Dunn's test; *p*-value < 0.05)

	No oil palm/land		No oil palm/no land		Oil palm/land		Oil palm/no land		*Kruskal Wallis test*	
	Mean	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	χ^2	***p-valor***
Expenditures, income, consumption and productivity										
Gross income	12424.78^{A}	7768.91	11222.86^{A}	3789.48	15266.66^{A}	6904.18	15865.00^{A}	4227.84	8.30	0.04
Net income	7058.68^{A}	5041.26	6047.86^{A}	3160.08	13403.36^{B}	18858.06	14771.00^{B}	4264.61	26.433	<0.001
Net income p.c	1253.96^{A}	976.20	2013.56^{A,B}	1230.95	1594.30^{A}	672.43	3821.33^{B}	1713.44	23.76	<0.001
Returns to labour	9.77^{A}	22.14	7.79^{A}	4.91	7.02^{A}	2.92	7.22^{A}	3.96	3.11	0.374
Agrochemical expenditure	4011.98^{B}	5118.40	3473.33^{A,B}	3825.46	1718.55^{A}	2670.17	865.00^{A}	1080.07	12.72	0.005
Mozos expenditure	1572.16^{B}	1774.17	1701.66^{A,B}	2131.93	138.23^{A}	315.99	229.00^{A}	390.11	24.48	<0.001
Agricultural expenditures	5584.15^{B}	5910.99	5175.00^{A,B}	4603.61	1856.79^{A}	2819.20	1094.00^{A}	1334.06	17.68	0.001
Food security										
Purchase of maize	1141.14^{A}	1435.82	1166.66^{A,B}	763.32	2212.68^{B}	1317.88	2149.24^{A,B}	1649.33	11.525	0.009
Production of maize	1693,15^{B}	524,95	1773,77^{B}	728,50	507,73^{A}	290,38	573,47^{A}	291,65	41,68	<0.001
Self-sufficiency	0.75^{B}	0.26	0.51^{A,B}	0.15	0.48^{A}	0.16	0.39^{A}	0.14	19.20	<0.001
Consumption of maize	1891.12^{A}	922.74	1150.00^{A}	709.05	2216.27^{A}	1127.05	1575.61^{A}	821.78	7.84	0.049
Consumption of maize p.eq consumer	505.04^{A}	264.71	575.41^{A}	352.19	437.88^{A}	248.77	692.94^{A}	339.60	4.91	0.178
Productivity of maize in rainy season	1040.51^{A}	844.07	1006.39^{A}	915.17	567.31^{A}	463.81	500.78^{A}	314.36	5.12	0.163
Productivity of maize in dry season	1726.03^{B}	0.06	1780.42^{B}	0.03	659.20^{A}	0.05	553.43^{A}	0.03	34.94	<0.001

Figura 6.3 The agricultural season calendar from the interviews at community level: (a) Annually, there are two climatic seasons affecting crops: the rainy season (May to October) and the dry season (November to April). The most productive period is the dry season, since land is flooded during the rainy season. (b) Men devote a day to planting the maize for every family plot, in which other men of the community get involved either as *mozos* (employees) or in exchange for work. Therefore, every man undertakes the sowing several times in the month of May and November. (c) Men clean maize plots throughout its growth from June to September (rainy season) and from December to March (dry season). (d) Men and women harvest the crop in the first half of October (rainy season) and the first half of April (dry season). (e) By slashing and burning maize fields, men prepare the land for sowing. Subsequently, land is left fallow for at least six months before replanting. (f) Men work in harvesting the fruit of the oil palm throughout the year (they may not be hired more than 15 days in a row); but the most productive months are from May to September. During this period, children also work *in the oil palm plantation field* by collecting the seeds of the fruits that are scattered on the ground. (g)The rest of the year, men are hired to fumigate and reap any fruit left. They also prune and clean the oil palm; however, this work is undertaken for free.

Households working in oil palm plantations have thus to coordinate their work in the plantations with that required for the maize-cultivated plots, which involves having altogether less human time available for maize cultivation. This, in turn, has gender implications. Women who live in households with land and whose husbands or sons do not work in plantations spend significantly more time in social activities than women in other households. In contrast, women from households involved in oil palm plantations have more time allocated to chores and less hours to social relationships and they spend significantly more time with household chore activities than women from households that do not have land and are not involved in oil palm plantations (Tabla 6.6). When maize cultivation matches with activities in oil palm plantations (Figura 6.3), women tend to allocate higher time amounts to prepare lunch for those who work in oil palm plantations or come to their land to help with planting maize. In particular instances, we observed that some women from households involved in oil palm plantations were working in maize fields, disregarding the Q'eqchi belief that women's presence in maize fields can reduce crop fertility (Interview A_2 in section 6.8 Annex). Notably, we also highlight that women from households involved in plantations allocate less time to social activities (Mann-Whitney test: U=2469; p=0.011) and sleep less than men (Mann-Whitney test: U=2770.5; p<0.0001).

Tabla 6.7 shows the results for *saturation of work* in general, in maize activities and in market activities. We note significant differences in these three indicators. *Saturation of work* is significantly higher in households working in oil palm plantations and without land, whilst *saturation of maize* is significantly lower in this household category. This suggests that households working in oil palm plantations and without land are greatly exploited through labour, i.e., they spend more than 70% of their available time working, whereas members of other household types only spend around 50% of their available time. This can be explained, on the one hand, by the demographic structure of this household category, which mostly consists of young families with a few adult members and, on the other, by the fact that such households must rent land in order to subsist and work more time in the plantations to pay for the maize they consume. The latter is facilitated by the above mentioned fact that the oil palm cultivator prefers employing young adults (<30 years old) to maximise productivity levels (Interview B_2 in section 6.8 Annex).

6.4.2. Functional differences among households

Significant differences are also found in most of the functional indicators across the four household categories identified. Tabla 6.8 shows the results of the Kruskal-Wallis regarding *income*, *expenditure*, *consumption* and *productivity*. We observe that Community B households working in oil palm plantations have higher *gross* and *net incomes*, but their *self-sufficiency* level is lower compared to Community A. There are different *gross income* levels, with households working in oil palm plantations earning more money and having higher *net income* figures. A closer look also reveals that households involved in oil palm plantations but without land have the highest *net income p.c.* of all, since all the rest spend a share of their income on *agrochemicals* and other expenditures for maize cultivation. Furthermore, as noted above, households working in oil palm plantations and not owning land have usually younger and fewer members, which in turn increases the ratio *income p.c.* (Tabla 6.6).

We do not identify significant differences across household categories relative to income obtained per hour worked, i.e., the *returns to labour.* This suggests that there are no differences between the profitability of wage labour in oil palm plantations, the sale of products in markets, and the combination of work realized by households, which in turn indicates that working in oil palm plantations is not a key driver of households' economic wealth. In fact, households from Community B report higher gross and net incomes but they are the least *self-sufficient* and their *productivity of maize in dry season* is also statistically lower (Tabla 6.8) and less than half of the departmental average production of 1,343 kg of maize per year (INE 2004). However, there are not any significant differences of *productivity of maize in rainy season*, since both labour efforts and agricultural inputs are very similar across the four household categories.

Finally, although there are differences in *maize consumption* across households, *maize consumption per equivalent consumer (eq.c)* does not appear to be significantly different across the four household categories (Tabla 6.8). Moreover, consumption levels in our studied communities are higher than the average maize consumption eq.c of rural families in Guatemala (i.e., 331.52 Kg/ eq.c.) (FAO 2001). This indicates that most households continue to allocate time and labour to cultivate maize due to the sacred value that it has among the Q'eqchi and regardless of whether they own or rent land (Interviews A_1 and B_9 in Tabla 6.9 in section 6.8 Annex).

6.5. Discussion

The results shown above illustrate the effects of labouring (or not) in oil palm plantations and having (or not) secure access to land have on Q'eqchi households' wellbeing. The combined effect of labouring in oil palm plantations and land access conditions is not homogeneous across the five components of wellbeing selected. In a nutshell, our results show that while oil palm labour increases specific elements of the basic materials for a good life, other components such as security (food security), health, freedom of choice, and social relationship can become deteriorated. Moreover, explicit elements of sacred values linked to maize cultivation have not been affected by households' involvement in the plantations. However, such involvement does translate in differentiated gross and net incomes, at the expense of reduced self-sufficiency and maize productivity levels, and of increased households' working hours, particularly for women (Figura 6.4 and Figura 6.5).

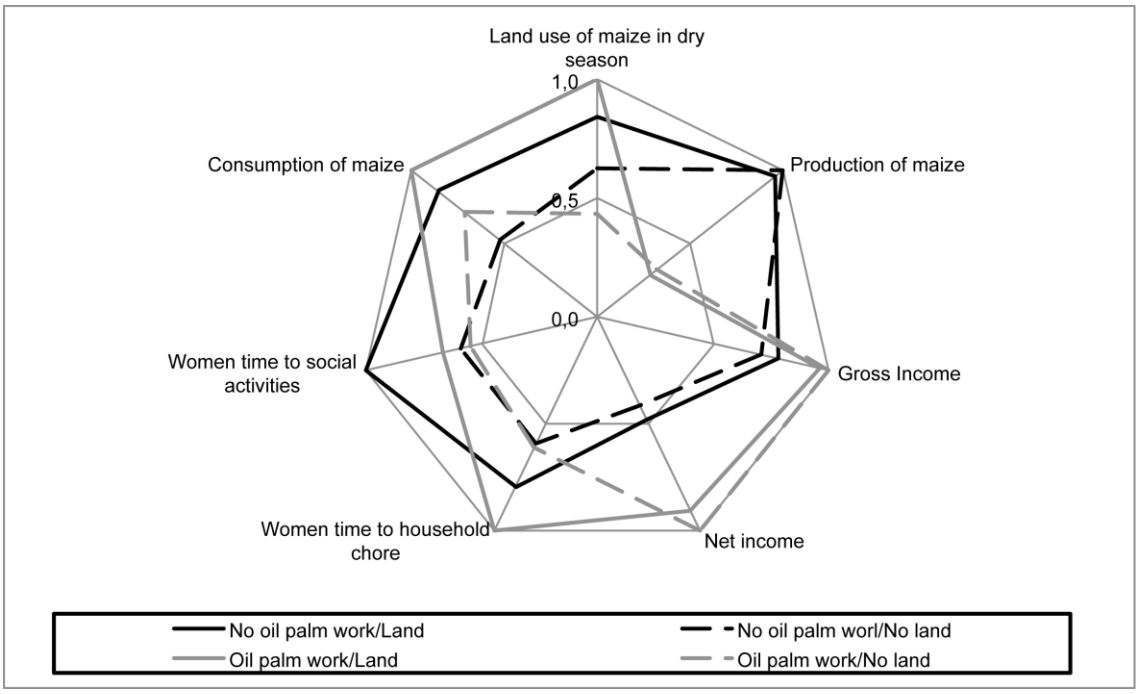

Figura 6.4 Relevant trade-offs for structural indicators across household categories. We applied the standardization method to transform the original values of an indicator to the percentage with respect to maximum value of the range of that indicator. Standardized values have the same range, from 0 to 1, for all indicators (See Saisana and Tarantola, 2002). Moreover, the method deals with the indicators as ratio scale (have an absolute zero) and keeps them as such after standardizing.

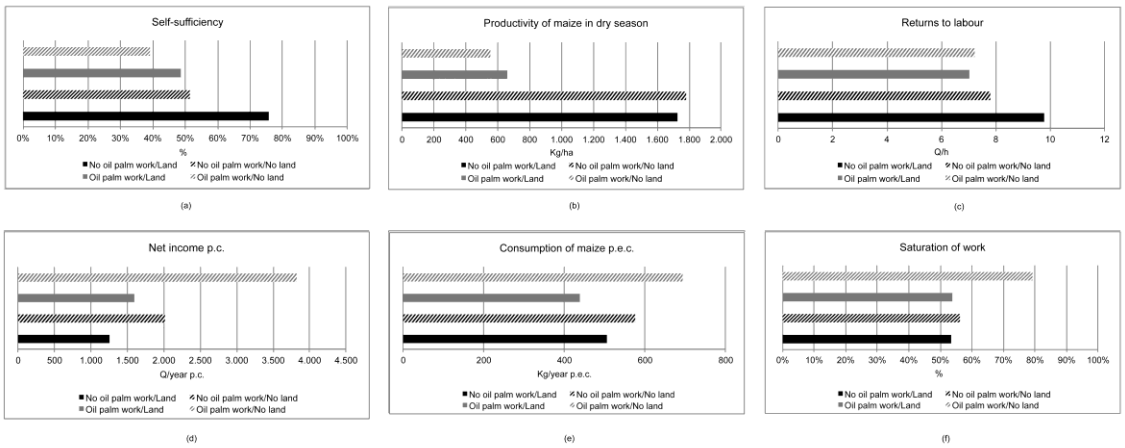

Figura 6.5 Relevant trade-offs for functioning indicators across households categories (except saturation of time, which is a structural indicator)

The relation between oil palm labour and higher households' income has been reported widely. Several studies indicate that working in oil palm yields economic benefits due to the implicit high returns on labour (e.g., Freintrenie et al. 2010, Rist et al. 2010). Our results, however, suggest that while it is true that working in oil palm plantations contributes to higher incomes,

other dimensions of wellbeing may be compromised. In fact, neither the income per capita of households working in oil plantations nor their resulting assets per hour worked are significantly greater than in households that do not work in plantations. Moreover, as indicated above, these households are the least self-sufficient and least productive, with implications for food security. This differs from previous research exploring the costs and benefits of cultivating oil palm on rural households' lands (Freintrenie et al. 2010, Rist et al. 2010), since we have put our focus on the livelihood effects of *working for* an oil palm cultivator and we have placed emphasis on multiple dimensions of wellbeing beyond income alone.

Our analytical approach also challenges the results emerging from studies analysing the effect of oil palm in rural economies more broadly (e.g., Belcher et al. 2004; Freintrenie et al. 2010), for at least three reasons. First, the unit of analysis in these studies has been the plantation system and, as a result, they have failed to compare workers' livelihoods with those of other households that are not involved in oil palm activities. Second, these studies have not considered if the number of household members or the available human time is sufficient to benefit from oil palm plantations without incurring in other wellbeing-related trade-offs. And third, the costs and benefits incurred by households in such studies are closely related to the terms and conditions under which small landholders are involved in the oil palm business (Obidzinski et al. 2012), with local stakeholders usually having some level of decision-making agency and the ability to shape even if partially the interactions with oil palm companies (Gillespie 2012).

In the Polochic Valley, however, the communities have little or no power in front of the agribusiness companies, and the public sector has not intervened to ensure that some minimum labour and salary conditions are fulfilled. During our fieldwork, several testimonies (Interviews B_6, and B_7 in section 6.8 Annex) highlighted that the oil palm company did not guarantee any labour rights and workers were often forced to work even if they were sick, to avoid losing their jobs. These views are consistent with other studies conducted in Asia and Latin America that have documented poor working conditions in oil palm businesses and subsequent effects on workers' physical and mental wellbeing (Murray Li 2011; Cardenas 2012, Obdzinski et al. 2012, Fradejas-Alonso 2012). In addition, we have also described the effects of plantations on members of workers' households, who result negatively affected by an increasing labour burden and have less time for themselves and for social activities (Interviews B_3, B_4 and B_5 section 6.8 Annex).

Furthermore, as shown in Section 4.2, all households consume the same amount of maize per equivalent consumer but households working in oil palm plantations suffer from higher food insecurity levels (Figures 4 and 5). This resonates with emerging research suggesting that oil palm may exacerbate food insecurity and may induce land grabbing processes through which to make sure that oil palm cultivation is prioritized over the cultivation of subsistence crops (Goebertus 2008; McCarthy and Cramb 2009; Obidzinski et al. 2012), a situation that may be aggravated as a result of rising demographic and land pressures (Koczberski et al. 2012). In this regard, the tensions around property rights in the communities we studied suggest that land conflicts may become more prominent in the near future. Lack of property titles and the continuous pressure on their land by agribusiness companies can lead to the dispossession of communities' lands (Alonso-Fradejas 2012). Furthermore, the present conditions of land tenure insecurity in the Polochic valley are threatening the spiritual and sacred values of the Q'eqchi, who are intimately connected to land through maize cultivation and refer to themselves as “Ral

Ch'och" (i.e., the sons and daughters of Mother Earth) who worship "Tzuultaq'a" (i.e., the mountain valley) (Interviews A_1, A_3, A_4 and B_9 in section 6.8 Annex).

Finally, our analysis also reveals the importance of accounting for the relationship between time use and gender aspects, being particularly attentive to overlaps between agrarian calendars and cultural understandings of agriculture and land use activities more generally (Brecher 2004, Freintrenie 2010). We have shown that households working in oil palm plantations, and particularly women, have no time for community activities, personal care, or resting, even when they desire so, since they prefer saturating their time than abandoning or significantly reducing maize cultivation. This contradicts but not invalidates other studies showing that heavy workload in oil palm plantations lead to the abandonment of traditional cropping and related activities (Obdzinski et al. 2012).

6.6. Conclusion

Research exploring the likely benefits and negative impacts of the current wave of oil palm expansion around the world has flourished over the last decated, with evidence showing mixed outcomes depending on the scale and focus of analysis, as well as on the plantation model and the tenure context. Overall, one could argue that whilst oil palm cultivation can have positive impacts on workers' income, it can also result in negative impacts such as loss of land rights, social conflict and environmental degradation. In Guatemala, research on these issues is now beginning to emerge (Grandia 2011; Alonso-Fradejas 2012), and our own study represents a contribution in this direction. Guatemala is becoming one of the lead producing countries of oil palm in Latin America. Oil palm expansion has been possible because the country's agrarian sector is traditionally focused on export-led monocultures, which are controlled by a few private actors who have vested interests in maximizing agricultural rents. This overarching agricultural development model has been sustained over time on a land tenure system that continues to disregard the access and use rights of indigenous communities and peasants, and prioritizes instead the individual rights of private large landowners, ranchers and companies.

In this paper, we have explored the interactions of two Q'eqchi indigenous communities with oil palm plantations, in a context of unrecognized and unclear property rights in the country's Polochic valley. We have demonstrated that while the income generated by working in an oil palm plantation increases specific elements of the basic material conditions for a good life, such as basic materials, other components such as security (food security), health, freedom of choice, and social relationships can worsen. Oil palm cultivation results in higher gross and net incomes, but this is at the expense of maize productivity, of an increase in the level of household-work saturation and, especially, of a reduction in women's spare time. However, we have also shown that maize consumption per capita has not decreased in any of the household categories analysed due to the sacred connection between the Q'eqchi people and this subsistence crop.

In this regard, and to our best knowledge, this article is one of the first to explore the effects of oil palm expansion on rural households, through a multidimensional approach that incorporates robust and exhaustive indicators and that indirectly includes local sacred values as part of its analysis. The Millennium Ecosystem Assessment did not explicitly include such values as part of its original framework, but their importance for wellbeing in some contexts has been recently recognized by sub-global assessments (e.g., UK-NEA 2011) and by the Intergovernmental Panel of Biodiversity and Ecosystem Services (IPBES 2013). In the Polochic valley, the sacredness

dimension characterizing maize cultivation contributes to secure a subsistence production buffer across all households, whilst it is instrumental in influencing perceptions about land-use and the likely impacts of oil palm cultivation.

We recognize that our analytical approach has gaps that deserve being addressed in future research. First, our results emerge from data collected in a given period of time, whilst a panel data exercise would have allowed us to observe if households' performance on different indicators varied over time and, if so, why. Second, the results are also geographically constrained, and we would have benefited from a wider sample across the country's oil palm producing regions and from the inclusion of other case studies from the contracted farmer-driven model of oil palm expansion. Third, we recognize that the indicators used can only partially inform households' performance on certain wellbeing dimensions. For example, we were unable to analyse individual exposure to agrochemicals or the number of agriculture-related injuries, illnesses and deaths in order to document health impacts across household categories. We did not explore either household security issues beyond the perspective of food security, for example by looking at crime rates or financial sustainability (Smith et al. 2012b). And fourth, we have not explored trade-offs between the wellbeing dimensions at inter-household level in the same community beyond the land tenure factor. In this sense, future studies may like to investigate if social conflicts arise when certain components of wellbeing improve in some households whilst deteriorate in others from within the same community. Consequently, there is ample opportunity to expand our analytical framework to other geographic areas and to develop long-term research that can rigorously document the aggregate and distributional outcomes of industrialized, large-scale agriculture on rural livelihoods.

6.7. References

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6.8. Annex

Tabla 6.9. The Interviewee numbers indicating community case (Community A and Community B) and the interviewee within community case (second digit), interviewee role, topic, and her or his quote

Function	Code	Topic	Quote
Female (41 years old)	B_1	CONSTRAINTS AND NEEDS: Women's time	"We have no free time; we always have things to do, as to provide care to children, to clean, to make corn tortillas…."
Male leader (35 years old)	B_2	WORKING CONDITIONS: The company prefers employing members younger than 30 years old	"The employees that the oil palm company wants are youngsters, all of them are under 30. They can lift heavy palm fruits, they do not get sick and do not complain"
Male leader (50 years old)	B_3	WORKING CONDITIONS: Young people working in oil palm plantations have no time for community activities	"Young people below 30 years old spend increasingly more time far away from the community and working on the plantations, and they are devoting less time to community activities"
Male leader (42 years old)	B_4		Referring to young people in the community: "They do not want to hear about the community anymore. They only come to sleep. Assemblies and ceremonies no longer take place here. They no longer know what needs to be done in the community to prevent it from turning into some other thing. The land for them is no longer land"
Female (30 years old)	B_5		"You fool the youth with "plata" (money), they forget who fought for them"
Male leader (35 years old)	B_6	WORKING CONDITIOS: Exploitative conditions imposed by the company	"There have been cases in which the company has coerced one of our leaders, they coerce the youth, they pay them so that they always have 30 years old employees, youngsters, and so that we don't complain"
Man leader (30 years old)	B_7		"Some employees fought for a wage increase. When the palm company owner did not accept it, they set the "llantas" (tires) on fire on the road as a sign of protest. The leader of our community is a young man who supports the company. There was no assembly, and the problem did not end because the community was not taken into account"
Male leader (35 years old)	B_8	WORKING CONDITIONS: Productive calendars	"The most productive time begins when the palm fruits are picked from May to September. But it is during the entire year, if they call us, that we need to be available to fumigate or clean. We work 15 days and rest another 15 days. It is possible that they call you on those days and you cannot go…then you lose the time""
Female (30 years old)	B_9	SACRED VALUES: Maize cultivation is an important and fundamental activity for the Q'eqchi	"When businessmen destroy the land, it is like they kill my son, because they kill the maize, they kill life"

Male leader (55 years old)	A_1	SACRED VALUES: Maize cultivation is an important and fundamental activity for the Q'eqchi	“We Q'eqchi', we are “Ral Ixim”(sons and daughters of maize), “Ral Ch'och” (sons and daughters of Mother Earth) and worshipping “Tzuultaq’a” (the mountain valley), and we understand that land is sacred, is alive, and it is for us, who cultivate it, so that everybody can eat and to protect the forests”
Male leader (35 year old)	A_2	SACRED VALUES: Women and maize	"The earth has life and is feminine. The maize grows on the land because it is masculine and the earth is fertile. In this way, we are men and women of maize. When maize is growing, women may not approach the land under cultivation because it competes with the fertility of Mother Earth. Women will only harvest when maize has already had children"
Female leader (32 years old)	A_3	SACRED VALUES of land	“Land is alive, is the fertile Mother, a gift from God, a sacred being, a territory, with water, with soil, with air, animals and plants”
Female leader (40 years old)	A_4		“Land is the only gift from God”
Female (30 years old)	A_5	CONSTRAINS AND NEEDS: Their own understanding of good living	“The base of development is to have land and to make it productive so that we have good health and development. Oil palm kills Mother Earth and that will have bad consequences for all of us”
Female leader (30 years old)	B_10	CONSTRAINS AND NEEDS: Their own understanding of good living	“We sow to fight and we fight to sow our maize, our food. Oil palm is not edible, and children will starve to death if more maize is not sown”
Female (42 years old)	A_7	CONSTRAINS AND NEEDS: Women's time	“There are no days to rest”; “We only sleep in the night”

7. Rural population below the poverty line: discourse with structural consequences for Q'eqchi' communities, Guatemala

Abstract

Poverty has many different dimensions, yet few reduction policies take an integrated approach to multidimensional poverty. Many continue to focus predominantly on income and employment issues, while others address different poverty aspects separately. This is also the case in rural Guatemala, where a series of development policies have pursued different targets, based on different narratives of poverty reduction. In this paper, we illustrate that while such policies may be effective to reach their particular objectives, they might be counterproductive among each others. In other words, while some policies improve some poverty dimensions, they can also lead to the deterioration of other poverty dimensions targeted by other policies. To do so, the article employs a multidimensional assessment framework and analyses household typologies of three rural communities, in order to address how they perform in relation to the contrasting goals of different rural development policies. While some household types indeed show increased performance of classic indicators such as monetary income and employment, a series of other issues targeted by other policies, like self-sufficiency, disposable time for community activities, or access to land, are worsening. Hence, the problem of focusing predominantly on one dimension, is not only that it is provides an incomplete picture. The real problem is rather that it can obscure the creation of new poverties in the life of rural dwellers

Keywords: Q'eqchi'; Guatemala; multidimensional poverty; rural development

7.1. Introduction

Poverty has been increasingly conceptualized as a multidimensional phenomenon that involves deprivation in many different dimensions of life (Kakwani and Silber, 2008; Laderchi et al., 2003). Well-known examples of multidimensional frameworks are Amartya Sen's capability approach (Sen, 1999), or Max-Neef's Human Scale Development approach that underlines the existence of different *poverties* (Max-Neef et al., 1989). However, when it comes to development practice, poverty reduction programs and projects are still often dominated by income/employment approaches (Sumner, 2007). These predominant approaches to poverty reduction can also be observed in rural development policies and programs of Guatemala, which is the focus of this paper. In particularly, this article illustrates that, while such policies indeed may serve formal employment and monetary income generation, they can also produce a series of adverse impacts on the lifes of rural communities.

Several empirical studies exist that show the importance of the use of different poverty definitions on poverty reduction efforts (e.g., Caizhen, 2010; Haveman and Wolff, 2005; Laderchi et al., 2003; Rojas, 2008). According to these authors, the approach used to define and measure poverty strongly determines who are the individuals and groups to be categorized as poor and the policies aimed at poverty eradication. For instance, OCDE (2006) proposes to foster agricultural development to reduce poverty by means of four different lines: by increasing farm incomes, by creating employment in farms, by fostering rural non-farms economy and by reducing prices of staple food. But the questions remains how far such policies can bring positive change across other, non-economic dimensions of poverty.

This paper sets out to demonstrate that the pre-analytical adoption of different narratives on poverty leads to the design and implementation of different policies for poverty alleviation and to non-equivalent assessments of the performance of rural households in terms of poverty reduction. In other words, it provides further empirical evidence that the choice of adopting certain poverty reduction narratives strongly matter for poverty studies, policies and the poor. To illustrate this, we (i) identify narratives about poverty on different rural development policies; (ii) identify the pertinent attributes needed to describe and represent poverty within the different narratives. Pertinent "attributes" are observable qualities used to characterize a system, which allow us to describe and evaluate its behavior and characteristics; and (iii) carry out an integrated assessment of households involved in different rural development policies from different perspectives (*i.e.*, adopting different coupling of narratives and attributes).

To do so, we conduct a multidimensional analysis of different rural Q'eqchi' communities located in the Polochich Valley, characterized by communities with different degrees of market participation. While we empirically illustrate that trade-offs between different poverty dimensions are evident (cf. Scheidel, 2013), we further show how these programs force fundamental structural changes in the cultural and productive system of rural Q'eqchi' communities. Hence, a central problem of focusing only on one poverty dimension is not that it just provides an incomplete picture of the situation, but rather that it may obscure the creation of other poverties due to a dominant focus on income poverty reduction.

The article proceeds as follows: Section 2 introduces our theoretical and methodological framework, on which basis the multidimensional assessment is conducted. Section 3 provides an overview of Guatemala's rural development policies and the case study area. Section 4 shows the multidimensional assessment of the three communities, characterized by different degrees of market participation, and discusses how different trade-offs across various poverty dimensions are produced, and how these relate to structural changes in the peasant economy and cosmovision. Section 5 discusses the implications that different poverty reduction narratives have for development policy and practice, while section 6 concludes.

7.2. Concepts and Methods

7.2.1. Multidimensional poverty: implications for rural studies and policies

Poverty may have different meaning for different social groups. Several theoretical and empirical studies have shown how important the choice of different poverty definitions is for the set of poverty reduction efforts to be developed (e.g., Caizhen 2010; Laderchi et al. 2003; Rojas 2008; Scheidel 2013; Haveman & Wolff 2005). According to these authors, the specific approach used to define and measure poverty strongly determines who are the individuals and groups to be categorized as poor and the policies aimed at poverty eradication

From an epistemological perspective, the interpretation of complex issues, such as poverty reduction in rural households and communities, is done through a set of narratives, expectations and goals delimiting the problem at hand (i.e. the issue definition). That is, the pre-analytical adoption of different narratives about poverty would lead to non-equivalent representations of the system under analysis. A rural household can be described and represented using different attributes and indicators (e.g. in terms of income per capita, in terms of literacy, in terms of access to health care or in terms of access to productive land), and the same household can be considered as poor under one perspective, but not poor under a different perspective. As a result, choosing different narratives of poverty would lead to different assessments of the performance of rural households and communities with regard to poverty reduction (Gamboa et al, 2015), arriving to different conclusions in terms of the level of poverty of households and communities, and the type of poverty alleviation policies to be designed and implemented (Laderchi et al. 2003),.

As the reader will see in the results section, different policies adopt different narratives about poverty and provide different sets of actions to deal with these different aspects of poverty. In general terms, some policies focus on the access to land to describe poverty and pursue to change the structure of land tenure to overcome the situation of poor rural households. Other policies focus on the access to food or the lack of income.

The objective of this article is to show how the the consequences that result from the adoption of different poverty narratives on the classification of households as poor and on the design and implementation of poverty alleviation policies. To reach this objective, we have performed the following steps:

1. Review of Guatemalan rural development policies in order to identify different narratives behind those policies and programs

2. Chose the policies with extreme narratives underlying their understanding of poverty

3. Define attributes relevant for each narrative to describe and represent poverty

4. Define different indicators to measure and represent attributes

5. Evaluate these indicators for the households of the case study

In the following sections, we present the main aspects of each of these steps

7.3. Case study approach

The success of poverty alleviation programs and policies is highly dependent on the specific context in which are implemented. Therefore, this study is based on a empirical analysis of a case study, allowing us to understand this issue (i.e. poverty reduction) and perform an in-depth analysis of a real context, rather than looking for statistical generalizations (Yin 2003, Ford et al 2010). The case study approach is also appropriate to analyse complex problems and systems, in which the main research questions start from a HOW (Robinson 2008). Our questions are: how does the pre-analytical choice of a given narrative about poverty determines policy design and implementation? And, how does the pre-analytical choice of a given narrative about poverty determines both the households considered poor and the policies aimed at poverty eradication?

7.3.1. Defining narratives, attributes and indicators

Narratives are understood here as stories identifying relations of causality used to structure the perception of the observed system (Kovacic and Giampietro, 2015, Magrini 1995, Allen and Giampietro 2006). In this way, narratives define the relevant attributes to be considered when dealing poverty eradication policies.

In this article, we particularly analyse the importance of the pre-analytical choice of narratives behind the definition of poverty and the problem structuring in the national strategies for poverty alleviation

To do so, we have first analysed the strategies, policies and programs dealing with rural development and poverty eradication in Guatemala. Then, we have chosen the two policy documents based on purposive sampling: a no probabilistic sampling of individuals holding some characteristics relevant to address the research questions. In this case, we have chosen two extreme policies defining poverty in very different ways, two clear-cut instances of the studied phenomenon (See Given, 2008). These are the Competitiveness Agenda (Government Agreement No. 306-2004) and the National Policy of Integrated Rural Development (Government Agreement No. 196-2009). In this way, we aim to contrast the official issue definition and problem structuring of poverty (Competitiveness Agenda) against the narratives and formal representation used by social and peasant movements (Integrated Rural Development).

Second, we have performed a content analysis of the chosen documents. The analysis consisted of codifying paragraphs (*i.e.*, create quotes) referring to observable qualities (*i.e.*, attributes) used

to characterize poverty. That is, to identify the main attributes used to perceive and describe poverty. Attributes are the essential elements used within the specific narrative to describe a system. For example, the assertion that "rural areas present low employment rate that are one of the main causes of poverty" contains a value-judgment, which is used to identify "rural employment" as an attribute within this document.

Third, we have defined formal categories in order to map these attributes and allowing the measurement of the state of the system according to this attribute: i.e., the definition of indicators used to perform a quantitative characterization of the system under study. Indicators are thus a means of representing an attribute of the system, an image of an attribute, formalized in terms of a specific measurement process (Galopin, 1997). For example, the number of people employed in agriculture can be used as the indicator for the attribute "rural employment".

In order to define and quantify indicators, we have used the accounting framework of the Multi-Scale Integrated Assessment of Societal and Ecosystem Metabolism (MuSIASEM) approach (Giampietro et al. 2009). The MuSIASEM approach uses the flow-fund model (Georgescu-Roegen. 1971), which distinguishes between *fund* elements as structural components of a system, and *flow* elements processed by the system and exchanged with its context. Fund elements analyzed in this study are human beings and Riparian land, measured in human time use and land use surface respectively. Human time and land are not only the main production factors, but are also important biophysical constrains for the production and reproduction of rural households (Grunbuhel and Schandl, 2005). Analyzed flows are income, expenditures, maize production and consumption.

Based on this approach, a large number of indicators have been developed, which are described in detail further in Chapters 5 and 6. For the purpose of this article, a set of six indicators was combined to assess the performance of rural households in terms of poverty reduction in relation to the two different policies.

7.3.2. Data collection

Data were collected between 2009 and 2011 in three non-consecutive fieldwork periods, using a mixed methodological approach encompassing in-depth interviews and questionnaires (Huntington 2000). In the first period (from March to June 2009), we conducted 12 semi-structured interviews with indigenous leaders, NGO members and representatives of peasant movements involved in the valley's land struggles. The aim of these interviews was to know the main characteristics of the communities of the valley: their production systems, forms of organization and participation in policies and programs.

In the second period (from July to November 2009), male and female leaders from the selected communities were interviewed. Interviews at community level were structured in five themes: (1) the main productive and reproductive activities of the households; (2) the agricultural season calendar; (3) the traditional and formal rules affecting natural resource management; (4) the socio-environmental history of the communities; and (5) the main constraints to fulfil their developmental needs and aspirations.

Interviews were used to understand the socio-economic and environmental context in which households and communities behave. Also, the questionnaire for the land and time use survey was designed according to the information gathered in these interviews. Furthermore, we use the

interviews to identify the main narratives regarding poverty alleviation and rural development from the point of view of communities.

Then, during the data analysis phase, we used the interviews to obtain detailed knowledge about the socio-economic context and their livelihoods and helped us to translate the attributes into indicators. Finally, the results and insights gained from our data analysis complemented the quantitative results of our surveys

In the third period (from May 2010 to February 2011), we conducted 10 intermittent field visits, each lasting 15 days, and deployed 196 questionnaires in the selected communities, with households selected randomly in both settings. The questionnaires were previously tested in both communities and structured in five sections: (1) demographic structure; (2) land uses; (3) income and income-generating activities; (4) household expenditure; and (5) the time use of individual household members. The basic unit of the time-land use survey was the household, since our observations confirmed that the household was the key institution of the *Q'eqchi'* communities where decision-making took place (Grandia 2006). We interviewed both female (*N*=98) and male household heads (*N*= 98), collecting information on all household members. Participant observation during the whole research process contributed to cross-checking and validating the surveys' approach and emerging results.

7.3.3. Data analysis

Q'eqchi' households shape and are shaped by the community, whereas a mutual dependency between these two levels exists. On the one level, and according to ours observations, households are the basic decision units on time and land allocation issues (See also Netting, 1995; Chapter 2). Also, the community imposes some constrains on the households, which adjust their behavior with a reduced degree of freedom. For example, when the community develops a collective project, the households are not completely free to decide how much time to allocate to these activities: there is a minimum requirement from the community. In most of these cases, the rest of the network (the community) is so strong that a significant restructuring of the community is very difficult to occur (Giampietro, 2003).

In this context, we consider the household as the unit of analysis. It is worth noticing that neither all the households of a community perform the same activities nor they have the same metabolic pattern. But the characteristics of the community heavily influence the different production and reproduction strategies (the activities) of the households (Mingorria, 2009; Mingorria and Gamboa, 2010). In order to simplify this complex reality, we base our analysis in households typologies. According to Giampietro (2003), a *type* is a simplification of real entities, a representation based on a set of expected relations between the components of the entity, which give rise to an expected behavior. The characteristics of a *type* are always associated with the possibility of performing a given and expected function.

The definition of household typologies is done by means of a cluster analysis process. This clustering process starts with the selection of a set of variables to classify the households. As mentioned before, human time and agricultural land are the main production factors of the peasant economies under study, in which productive capital is scarce. They also are the main constrains for the intensification of the agrarian practices (i.e. to increase yields by means of increasing the work load in agricultural activities). The selection of this preliminary set of variables is oriented by the objectives of the analysis and based upon the acquired knowledge of the

communities and their contexts. In this case, we choose twenty nine variables describing: ***a)*** the demographic structure of the households, ***b)*** the agricultural system developed by the households (land uses), and ***c)*** the participation in the labor and food market (see Mingorria et al. 2015, Table 4).

A Principal Component Analysis (PCA) was performed to identify the factors behind the socio-economic differences among households. Then, an agglomerative hierarchical cluster analysis (HCA) employing the Euclidean distance and Ward's method was implemented. The HCA was performed using those factors obtained from the PCA with an eigenvalue higher than 1 (Kaiser Criterion). The number of clusters (i.e. household typologies) has been determined to serve the purpose of the analysis (Köbrich et al., 2003) and based on the researcher's experience and the knowledge acquired through empirical observations (Garmendia and Gamboa, 2012). A nonparametric Kruskal–Wallis test, followed by Dunn's multiple comparison tests, were applied to test differences among the household types in each of the indicators considered.

7.3.4. Study area

The Polochic Valley

The Polochic Valley is allocated in the northeast of Guatemala in the Alta Verapaz and Izabal departments, which host a high level of poverty. About 220,000 people inhabit the valley and rely on subsistence agriculture (INE 2002). From this population, 89% per cent are indigenous Mayan *Q'eqchi'* and the rest are Mayan *Poq´omchi´* and *mestizos* (i.e. people with Spanish and indigenous origins) (ENCOVI 2006).

Since the 1890s, the agro-export model has dominated the valley. At that time, the liberal government granted large areas of land to German families who started growing export-oriented crops such as coffee, cotton and banana. Maya Q'eqchi' people were forced to migrate or become *mozoscolonos* (i.e. people who worked for the landowner in exchange for a small plot of land where they could cultivate subsistence crops). Since then, land claims by the Q'eqchi' have been ignored and often violently repressed (Grandia 2006). Coffee farms and livestock raising were affected by the coffee crisis of the early 2000s and thereafter by the decrease of meat prices (Wagner 2001). Nowadays, most of the valley is dominated by sugarcane and oil palm plantations and less so by cattle farms (Solano and Solís 2010). Since 1998, a descendant German family manages 8,500 ha of cultivated oil palm plantations, representing almost three quarters of the valley's most fertile land, and the sugarcane industry has expanded over more than 5,000 ha since 2005 (Alonso-Fradejas et al. 2008; 2011; Mingorría and Gamboa 2010).

During all this time, the Q'eqchi' people have maintained the moral economies[27] based on subsistence agriculture complemented with other sources of income (Grandia 2012). The majority of Q'eqchi' communities produce maize for subsistence (INE 2002), but they differ in

[27] According to Grandia (2006), "after saving enough for family food security, farmers can easily sell leftover corn to middlemen and use the proceeds to buy their basic household necessities, like medicines, shoes, clothes, tools, and daily comestibles (sugar, oil, coffee)". This would confirm that household security is prioritized over cash accumulation, following a "safety first" principle in their behaviour.

terms of the degree and the forms of market integration (Alonso-Fradejas et al. 2008, Mingorría and Gamboa 2010). The main income-generating activities developed in the higher part of the valley (mountain) are the cultivation of cardamom and coffee as traditional agro-exports crops. On the lower part of the valley, the communities produce and sell surplus maize to obtain an important part of their income and/or work either for other farmers and/or on cattle ranches and oil palm plantations (Molina-Loza et al 2009; Ronzon and Till 2004).

For this study we have worked with four communities that represent three different production systems available in the Polochic Valley: a) Subsistence agriculture complemented with either traditional export crops such as cardamom: two communities located in the mountains; b) production of maize surplus for the market: one community located in the lower part of the valley); c) and waged labor in plantations: one community located in the valley. The two most contrasting production systems are: a) mixed-traditional, on farm, and c) waged labor, off-farm.

7.4. Results

We present now how different household types within these communities perform in relation to the objectives of different poverty reduction policies. To do so, we first describe the two most contrasting policies for poverty eradication and present for both the set of related narratives, attributes and indicators that we have identified. The developed indicators are then used to evaluate household performance of different household types in terms of poverty alleviation.

7.4.1. Narratives, attributes and indicators of two contrasting rural development policies

As mentioned in the methodological section, we have chosen two policies with extreme and contrasting narratives about poverty and poverty alleviation. These are the Competitiveness Agenda and the National Policy of Integrated Rural Development presented in Table 1.

Table 1. Main characteristics of the analyzed policies for poverty alleviation

	PNDRI Government Agreement No. 196-2009	**PRONACOM** Government Agreement No. 306-2004
Objective	Overcome the situation of poverty, unequity, social and political marginalization	Improve the quality of life of the Guatemalan people and promote economic growth, by means of fostering competitiveness
Integral Rural Development	Advance towards a dignified and just life, in economic, social, political, cultural, environmental and spiritual terms	Reduce the lack of employment and oportunities to generate income, improve the precarious labor conditions, the access to credit, and the productive and basic service infrastructures (drinkable water, electricity, etc)
Priority sector	Indigenous or peasant communities with insufficient land or without land, seasonal or permanent paid workers	All the population, especially rural poors
Agriculture	Improve efficiency and equity, diversify and promote the production of basic grains	Increase competitivity by means of participating in national and international markets, facilitating access to credit and through public and private investment
Food	Food sovereignty (availability, access and consumption of food that is adequate in social and cultural terms)	Food security (availability, access and consumption of food)

Land	Transform the structure of land tenure and use, avoiding land concentration	Regulate access tol and through a market-led agrarian reform
Employment	Improve capabilities of rural population to increase employment and quality of jobs	Increase employment by means of promoting both participation in national and international markets, access to credit and public-private investment

From these policies, two main narratives have been identified that we call the *livelihood* and the *market* narratives. Both narrative aims at improving the quality of life of poor people. The former focuses on facilitating poor people's access to land by transforming the structure of land use and tenure. It further puts forward the concept of food sovereignty, by promoting the ability of small peasants to produce culturally adequate food by improving and diversifying production techniques. On the other side, the *market* narrative proposes the participation in national and international markets, access to credits and the promotion of public-private investment as a means to create jobs and incomes. In this way, poor families are argued to be able to improve their quality of life and to access food and land

Based on the content analysis of these contrasting policies, the following Table 2 presents a set of particular attributes and indicators which we used to evaluate the performance of different household typologies in terms of poverty.

Table 2. Attributes and indicators used to evaluate household performance according to different narratives (source: own elaboration)

Narrative	Attribute	Indicator	Description
Livelihood	Access to land	Land use maize	Surface land cultivated with maize
	Self-sufficiency	Self-supply of maize	Share of maize consumption from own production
	Workload	Saturation of work	Share of disposable human activity allocated to paid and unpaid work. disposable human activity is the total amount of hours in a day minus time allocated to physiological overhead (i.e. sleep, eat and personal care)
Market	Income	Net Income	Net income per capita
	Economic labor productivity	Return to labor	Net income per hour worked time
	Consumption of food	Maize consumption	Amount of maize consumed per equivalent consumer

7.4.2. Performance of households

Five household typologies were found in the sample. The Mix-traditional type groups households from the communities in the mountain. They perform subsistence agriculture, complemented with cardamom cultivation to obtain incomes. Then, we find two household typologies within each of the other two communities: two household typologies producing maize surplus for the market (Cash crop-Land and Cash crop-No land) and two household typologies

providing labor to the oil palm plantations (Oil palm-Land and Oil palm-No land). As their names reflect, in both cases land tenure is the main characteristic differentiating typologies.

Figure 1 presents the evaluation of these five household typologies according to the different indicators of the market and livelihoods narratives.

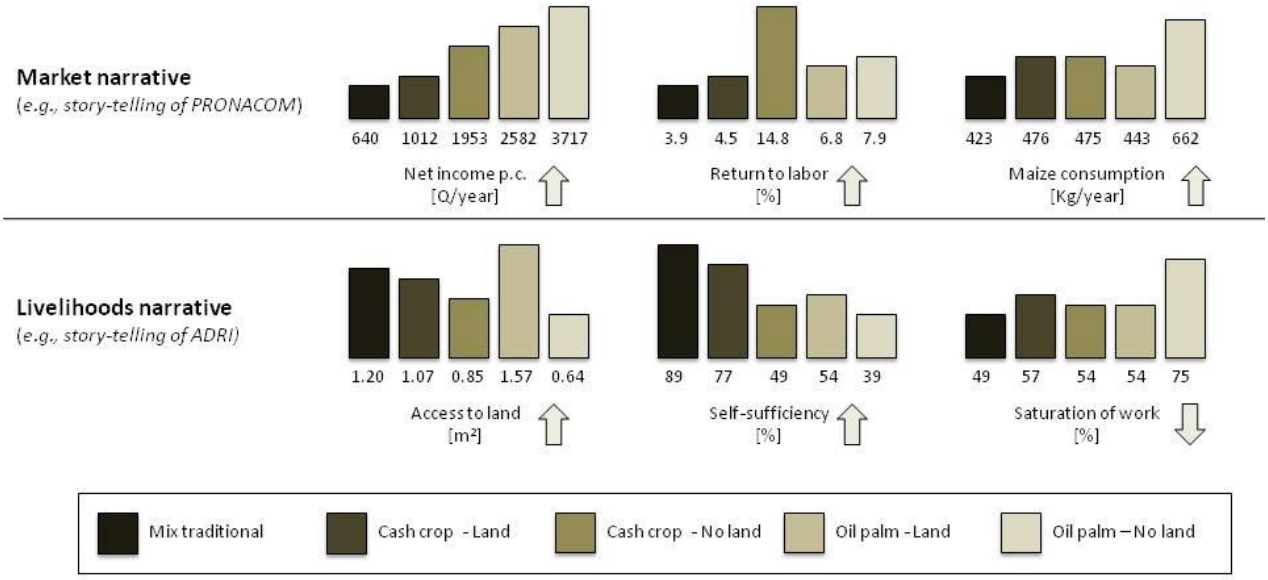

Figure 1. Performance of household typologies according to the market and livelihoods narratives. Note: Arrows next top indicators name indicate whether the indicator is for maximizing or for minimizing. Source: own elaboration based on Tabla 7.1, section 7.6 Annex.

According to the indicators selected in the story-telling *market*, the household typology "Oil palm-No land" presents higher income per capita, followed by households of "Oil palm-Land". The main differences between the two are that the former have no land and are smaller households made up of younger people. This allows these household to allocate a larger amount of time to work in oil palm plantations and obtain a higher monetary income per capita than the rest. They are followed by the households that focus on producing maize for the market. The same difference than the previous case applies here. Smaller households (i.e. "Cash crop-No land") are able to obtain a higher net income per capita by producing maize surplus for the market.

In terms of return to labor, the "Cash crop-No land" households almost double the income per hour of human activity allocated to paid work obtained by the households whose members work in oil palm plantations. This reflects the priority of these households in participating in the market by selling large proportion of their maize production to the market (see Self-sufficiency below).

Finally, under the *market* narrative, we can see that all household typologies, except the "Oil Palm-No land" type, consume more or less the same amount of maize per capita. As mentioned before, these households obtain higher income per capita than the rest, which enables them to buy larger amount of maize per capita in the market.

According to the indicators selected in the *livelihood* narrative, the results are somewhat the opposite. "Mix traditional" households have medium-high land use allocated to maize production compared to the rest of the household typologies. "Oil palm-Land" households show a larger amount of land use, but this is due to the larger amount of land in property they have. In fact, these households have lower productivities (about half and one third) than the Cash crop households, due to lower human time allocated to this activity.

Then, the prioritization of participating in the market is also reflected in the indicator self-sufficiency. "Mix traditional" perform better in this regard, followed by "Cash crop-Land" households. The latter are larger households with access to land: they try to find the balance between producing maize for the market and for their own consumption. Smaller households of younger people (i.e. "Cash crop-No Land" and "Oil palm-No land") present the lower figures of self-sufficiency, which reflects the lack of access to land and their priority to obtain income from the market to survive.

Finally, the saturation of work indicators shows that the members of the Mix traditional households have less workload than the others, which give them more time for communitarian work and organization (See Mingorria et al. 2015). "Oil palm-No land" households stand out in this regard, since they allocate three quarters of their available time to paid work activities. Furthermore, one can evaluate the degree of integration in the market by calculating the saturation of paid work, which is the share of disposable time allocated to paid work activities. On one extreme we have the "Mix traditional" households allocating 6% of their disposable time to market activities and on other extreme we have "Oil palm-No land" households allocating 21% of their disposable time to market activities.

In summary, we can say that households participating in policies aimed at incorporating peasants to the market (i.e. "Cash crop-No land", "Oil palm-Land" and "Oil palm-No land") obtain larger flows of money and food from the market. On the other hand, households trying to find a balance between subsistence agriculture and participation in the market are able to keep the workload at half of their disposable time (i.e. take care of themselves), self-supplying larger amount of maize thanks to having access to enough land.

7.4.3. Discussion

The previous section has shown that depending on which poverty narrative is taken, household types show a very different performance. In this final section we discuss two relevant implications that arise from conceptualizing poverty as multidimensional; first, the existence of trade-offs between different poverty dimensions, and second, the difference between weak and strong poverty reduction (Scheidel, 2013).

With regard to the first, we have seen that most household types that show positive performance under a *market* narrative to poverty reduction, as represented by the PRONACOM policy. However, from a *livelihood* narrative, as represented by the PNDRI policy the same households show a comparatively bad performance. For instance, "Oil palm-No land" households about double the poverty threshold of 234 US$/year per capita. However, these households allocate 75% of their disposable time to work (having few time for community activities and to produce food) and have very limited access to land, making them very dependent on maintaining their work in oil palm plantations to assure their access to food and other basic needs. Hence, trade-

offs between poverty dimensions exists and need to be carefully considered in the design of policies and programs, in order to avoid that they become counterproductive.

With regard to the second point, if we consider poverty reduction as an issue of sustainable development for the long-term, the distinction between weak and strong sustainability becomes relevant. According to Daly (1990), the paradigm of weak sustainability is based on the assumption of substitutability of different types of capital; which implies that maintaining the total stock of capital, no matter of which it is composed, is enough for sustainability. Strong sustainability is based on the assumption that different types of capital cannot be substituted, but rather are complementary. As such they have to be maintained independently for sustainability.

In this line it is also possible to distinguish between weak and strong poverty reduction (Scheidel, 2013). Weak poverty reduction is based on the assumption that improvements in one dimensions of well-being can compensate deprivation in other dimensions. For instance, food security would be reached by increasing income (a flow) through off-farm jobs that allow people to buy food, which in turn can compensate the loss of land (a fund, or asset) to produce food. However, there are situations in which improvements in one dimension cannot substitute for the deteriorations of other poverty dimensions. For instance, an increase in (short-term) flows (e.g. money, or food) to enhance deprived consumption cannot always substitute for the loss of underlying funds (e.g., fertile land, healthy labour conditions) that allow for the production of such flows in the long-term. Strong poverty reduction hence needs to focus on increasing access and control over productive funds necessary to make a dignified life in the long-term.

In the case presented in this chapter, we can say that PRONACOM is a weak poverty alleviation policy, whilst the PNDRI would be a strong poverty alleviation policy. The former focuses on increasing income of poor families by means of increasing their competitiveness, facilitating access to credit and fostering their participation in national and international markets. Higher incomes would allow them to access food and land. On the other side, the PNDRI aims at changing the structure of land tenure, avoiding land concentration processes and supporting access to land to poor families through land reform and land redistribution. Access to food would be fostered through diversification in agricultural production and improving productivities thanks to technical advice.

The participation in weak poverty alleviation policies has fostered structural changes in the cultural and productive systems of Q'eqchi' communities. Household typologies based on cash crop cultivation and on providing labour force to oil palm plantations have to allocate larger share of their time to the new economic activities compared to households practicing more traditional activities. This entails lack of time to maintain social and community structures, such as those mechanisms to face and solve conflicts, to manage the commons, to represent the community in front of official institutions, among other (see Chapters 5). These changes in social and community structures have also influenced in how these households have invested in additional funds. The communities with mainly “Mix traditional” households have largely invested cardamom drier as a community capital and on a communitarian stock breeding project. In this way, these communities are investing in productive funds to improve their quality of life. On the other side, “Oil palm” households have mainly invested in domestic appliances and motorbikes, and the community with “Cash crop” household typologies have not invested in any additional capital fund.

7.4.4. Conclusions

Nowadays, most scholars and development professionals would agree that poverty is a multidimensional phenomenon. Yet few policies and programs take an integrated approach to multidimensional poverty reduction, but rather focus on different aspects separately, based on different understandings and narratives to poverty. This however has important implications for the design of rural development policies, as well as for the related actions that affect rural communities.

Based on an empirical case study of Q'eqchi' communities in Guatemala, this paper has illustrated how two policies with the same broad aim of "poverty reduction" can lead not only to very different assessments of how rural communities perform, but are also related to differences in how they organize their livelihood systems. While these policies may achieve their particular goals, they also have produced a series of trade-offs across other poverty dimensions. Some trade-offs may be acceptable for rural communities. Some trade-offs, however, need to be carefully considered; particularly when communities may lose access to important funds (such as fertile land) that would allow making up a dignified life in the long-term.

Hence, the pre-analytical choices for defining a narrative on poverty, adopted during the process of policy making, thus have crucial implications on rural communities. In order to take multidimensional poverty reduction seriously, it is not only necessary to set up several programs targeting different dimensions, but furthermore to seek integration of these by carefully considering the possible trade-offs and new poverties that may be created

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7.6. Annex

Tabla 7.1. Mean values and statistical differences of calculated indicators based on Kruskal Wallis test

	(2) Mix-traditional		**(1) Cashcrop-land**		**(3) Cash crop-No Land**		**(4) Oil palm-Land**		**(5) Oil palm-No Land**		***Kruskal Wallis test***	
	Mean	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	**Mean**	**Std.dev.**	χ^2	***p-valor***
Net income	3839,25 ^{A}	2315,20	6127,56 ^{A}	3874,55	8014,45 ^{A,B}	6050,47	18477,15 ^{B,C}	19283,39	16100,90 ^{C}	5985,27	45,407	< 0,001
Net income p.c	639,33 ^{A}	432,57	1011,94 ^{A,B}	613,30	1953,45 ^{B,C}	1327,75	2581,69 ^{B,C}	3037,88	3716,91 ^{C}	1662,00	45,02	< 0,001
Returns to labour	3,91 ^{A}	2,77	4,51 ^{A,B}	3,54	14,81 ^{A,B}	29,769	6,75 ^{B}	2,19	7,93 ^{B}	4,44	18,58	0,001
Self-sufficiency	0,894 ^{C}	0,180	0,77 ^{B,C}	0,239	0,492 ^{A,B}	0,483	0,541 ^{A,B}	0,206	0,393 ^{A}	0,139	37,27	< 0,001
Consumption of maize (eq.c)	422,64	246,96	476,002	261,17	474,59	334,83	443,14	255,96	662,11	338,02	6,11	0,191
Productivity of maize in dry season	989,97 ^{A,B}	501,43	1793,02 ^{C}	810,39	1523,17 ^{B,C}	552,66	631,82 ^{A}	528,54	602,87 ^{A}	330,87	35,41	< 0,001
Saturation of work	0,49 ^{A}	0,11	0,57 ^{A,B}	0,14	0,54 ^{A}	0,17	0,54 ^{A}	0,15	0,75 ^{B}	0,14	18,16	0,001
Land used of maize in dry season	1,20 ^{A,B}	0,68	1,07 ^{A,B}	0,37	0,85 ^{A}	0,58	1,57 ^{B}	0,46	0,64 ^{A}	0,37	25,109	<0,001

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8. Discusión

Existe movimiento de justica ambiental y agraria que se manifiestan mayormente en la escala territorial del Valle del Polochic, a partir proteger la tierra y defenderla formas alternativas al sistema capitalista. A escala nacional e internacional también se dan protestas y reclamos en contra de la violación a los derechos humanos, el acaparamiento de tierras y los agrocombistibles.

En esta tesis se muestra evidencias empíricas de cómo las aproximaciones interdisciplinares y multiescalares son necesarias para entender las implicaciones y las resistencias del actual modelos extractivista agrario.

La expansión de los monocultivos de múltiples y flexibles usos como la palma aceitera y caña de azúcar generan acentúa la desigualdad y la injusticia ambiental ya que, a escala territorial exacerban las disputas históricas de acceso a tierra entre comunidades indígenas y las élites empresariales y genera nuevos conflictos ambientales.

A escala de comunidad, los procesos de privatización y mercantilización de la tierra ligada a la expansión de estos monocultivos inhabilitan las instituciones tradicionales comunitarias que servían para mediar las relaciones de poder intracomunitarias. La falta de esas instituciones agudizan las desigualdades creadas por diferencias en el acceso a tierra e ingresos.

A escala de hogar, el trabajo en las plantaciones de palma aceitera junto con la falta de tierra ha incrementado los ingresos en los hogares en detrimento de otras dimensiones del bienestar humano, tales como la seguridad alimentaria, la libertad de elección, y las relaciones sociales, especialmente de las mujeres. La diferenciación entre "obreros del campo" y "campesinos que venden excedentes de maíz" crea desigualdades entre hogares de distinta comunidad; El trabajo en las plantaciones de palma genera desigualdades a partir de diferencias de género y generación. Las mujeres de los hogares que trabajan en las plantaciones ven afectadas especialmente sus libertades de elección y sus relaciones de sociales al tener que incrementar su jornada laboral. Al mismo tiempo sólo son los jóvenes los que trabajan en las plantaciones.

La visibilidad de estos conflictos a escala nacional e internacional ha sido condicionada por la violencia ejercida por el gobierno y las élites empresariales, el rol del Estado en mediar para "resolver" los conflictos y la naturaleza, las formas de movilización y los tipos de alianzas entre ONGs internacionales, nacionales y locales. Específicamente, los comunes agrarios situados en áreas más aisladas (que han mantenido cierta autonomía y cohesión social) son los que han preservado instituciones tradicionales y desarrollado nuevos mecanismos para contrarrestar los efectos de las actuales dinámicas de acaparamiento de tierras.

Desde un punto de vista metodológico, para construir indicadores que analicen y midan la pobreza a nivel de hogar, es necesario determinar las narrativas que definen la pobreza. En Guatemala, las políticas nacionales destinadas a reducir la pobreza rural definen pobreza de manera diferente; por un lado el Programa de Competitividad propone reducir la pobreza residual (provocada por la falta de flujos monetarios) y la Política de Desarrollo Rural, la pobreza estructural (falta de fondos como tierra o estructuras) que permitan reproducir los flujos. De acuerdo a esto, dos tipos de interpretaciones son posibles en función de la narrativa elegida: 1) que la promoción de trabajo asalariado en las plantaciones de palma disminuye la pobreza (residual) de los hogares, al aumentar los flujos monetarios; o 2) que el acceso a tierra a favor de comunidades indígenas y estructuras productivas comunitarias reducen la pobreza estructural al tener acceso a los fondos que permiten producir flujos monetarios (ingresos) y materiales (alimento) a lo largo del tiempo.

Los resultados de esta tesis me han inspirado para generarme nuevas preguntas y retos de análisis:

Desde los resultados del Capítulo 4 y 6 sobre el conflicto y las implicaciones socio-economicas:

A escala global

Profundizar en el conocimiento de las consecuencias y las formas de resistencia y movilización en los conflictos ambientales relacionados con la expansión de los flex-crops y abrirlo más ampliamente a conflictos de biomasa (incluyendo plantaciones de eucalipto, hule). Aplicar la estadística en la Ecología política.

Comparar este caso con otros casos de conflictos ambientales generados por los cultivos flexibles de la palma aceitera y la caña de azúcar, para entender qué diferencia las implicaciones y la formación o no de movimientos o formas de resistencia en relación a los procesos de cercamiento y acaparamiento de tierras.

Comparar conflictos en Latino Ameérica y con otros contientes como África, Asía para ver las relaciones de superficie de tierra, o densidad de población se relacionan con las implicaciones sociales y ambientales.

Específicamente entender cómo influye el Estado (comparando conflictos ambientales de diferentes países), la dimensión étnica o la violencia en las formas de movilización.

Entender las diferencias y similitudes con otras actividades extractivas como la minería o conflictos energéticos para contribuir a la reflexión interna dentro del movimiento de justicia ambiental. Analizar qué estrategias de son aplicables a qué tipo de conflictos y donde existen posibles alianzas al compartirse actores, argumentos, lenguajes y formas de movilización.

A escala comunitaria y territorial Q'eqchi'

Desde los resultados del capítulo 5, explorar la aproximación de los comunes

En todos ellos, y desde el caso de estudio, comparar estos resultados en el tiempo y analizar las diferencias en movilización a partir de una aproximación de clase social. Como muestra Soroya a través de una subdivisión capesina, la teoría de clases puede estar explicando porqué no existe un movimiento en contra de las plantaicones de palma a escala territorial.

Comparar estos resultados con otras regiones del Polochic.

Analizar las implicaciones ambientales (contaminación de ríos, suelos) en relación a la percepción de esos daños. Especialmente es importante esta investigación en el marco de la investigación-acción por los últimos acontecimientos ocurridos, contaminación y desvío de ríos junto con las movilizaciones y denuncias.

A partir de esta tesis me doy cuenta de lo importante que es nuestro "everyday politics" (la política cotidiana). Es decir nuestras (mis) acciones de nuestro (mi) día a día, como individuos, y como colectivo. Entendiendo "política" como el control, gestión, producción y el uso de recursos (tierra, dinero, agua, poder, educación, salud) y los valores e ideales que subyacen esas acciones.

9. Conclusiones

- Los resultados muestran como la actividad extractiva por la expansión de las plantaciones de palma aceitera y caña de azúcar incrementan las desigualdades de género, clase y generación así como los conflictos ambientales a diferentes escalas.

- A escala territorial, exacerban los conflictos históricos entre hogares Q'eqchi' y las élites nacionales del país relacionados con el acceso a tierra y a otros recursos como el agua.

- La visibilidad de estos conflictos a escala nacional e internacional ha sido condicionada por la violencia ejercida por el gobierno y las élites empresariales, el rol del Estado en mediar para "resolver" los conflictos y la naturaleza, las formas de movilización y los tipos de alianzas entre ONGs internacionales, nacionales y locales.

- A escala comunitaria, debido a los procesos acaparamiento de tierras, las instituciones tradicionales Q'eqchi' de las comunidades que se encuentran en el área de expansión de estos monocultivos se inhabilitan incrementándose las desigualdades de clase y generación entre los hogares.

- La ausencia de parte de las instituciones tradicionales Q'eqchi' la distribución de la tierra y el trabajo en las comunidades situadas en la región de expansión de los monocultivos que regulen hace que se diferencien socialmente los hogares más antiguos que tienen tierra y obtienen más ingresos y los hogares jóvenes que no tienen acceso a tierra y obtienen menos ingresos.

- A escala de hogar, el trabajo en las plantaciones de palma aceitera ha incrementado los ingresos en los hogares en detrimento de otras dimensiones del bienestar humano, tales como la seguridad alimentaria, la libertad de elección, y las relaciones sociales, especialmente de las mujeres.

- Por lo que los procesos de expansión de palma aceitera crean diferenciación social entre hogares trabajadores rurales, campesinos integrados en el mercado y campesinos que viven del cultivo de la tierra para alimento. A su vez, el trabajo rural aumentan las desigualdades de género, donde las mujeres doblan su jornada laboral y renuncian a actividades sociales en los hogares donde el hombre trabaja asalariadamente en las plantaciones de palma aceitera, y desigualdades entre generaciones de hombres a los que la empresa les compra su mano de obra (hombres menores de 30 años) y a los que no (hombres mayores de 30 años)

- Ante las desigualdades distintos grupos de actores se oponen a la expansión de esta actividad agraria extractiva; por un lado comunidades Q'eqchi' resisten de manera diaria y cotidiana a través de la práctica del común; y a escala territorial, del Valle del Polochic, las comunidades resisten y se movilizan a través de ocupaciones de tierras a favor de la justicia ambiental y agraria.

- El movimiento de justica ambiental se manifiestan mayormente en la escala territorial del Valle del Polochic, a través de prácticas cotidianas basadas en relaciones sociales de reciprocidad, cohesión social y distribución equitativo de los recursos como la tierra y las ocupaciones de tierras del ambientalismo de los pobres. A escala nacional e internacional también se dan protestas y reclamos en contra de la violación a los derechos humanos, el acaparamiento de tierras y los agrocombistibles.

- Es a escala comunitaria y cotidianamente es donde la población indígena del Polochic desarrolla sus principales formas de resistencia. Específicamente, los comunes agrarios situados en áreas más aisladas (que han mantenido cierta autonomía y cohesión social) son los

que han preservado instituciones tradicionales y han desarrollado nuevos mecanismos para contrarrestar los efectos de las actuales dinámicas de acaparamiento de tierras.

- Es a partir de examinar los cambios institucionales en diferentes comunidades que es posible analizar como el común agrario ha sido afectado por las dinámicas externas, en este caso la expansión de cultivos flexibles y los procesos de enclosure y como su vez, y al mismo tiempo como éste reacciona de manera diferente en función de su ubicación espacial (zona de la expansión o región más aislada) y su proceso de conformación.

- Estas formas de resistencia silenciosa a través del común agrario se explican a través del paradigma de Nuevos Movimientos Sociales. La identidad Q'eqchi' es imprescindible para entender sus instituciones tradicionales y su forma de resistir desde común agrario.

- A escala territorial grupos de hogares Q'eqchi' apoyados por ONGs diversas (de desarrollo, campesinas, institutos de investigación, donadoras), se movilizan para ocupar tierras que habían sido sembradas de caña de azúcar. Esta forma de movilización ha sido una de las más utilizadas por el movimiento campesino en la historia de Guatemala.

- Las ocupaciones de tierra de un grupo de hogares campesinos y trabajadores rurales diverso se explica desde el paradigma de la laucha de clases y el de la Movilización de Recursos y Oportunidad Política. Los hogares luchan por acceder a los medios de producción que controlan las élites nacionales, aprovechando la subasta de parte de las fincas fértiles del valle, ante la quiebra del ingenio de caña de azúcar.

- Otros actores con grandes ONGs "eco-eficientes reformistas" se movilizan a favor de un grupo de comunidades y su acceso a tierra; pero sin mostrar una posición visible en contra de las actividades extractivas.

- Alianzas entre eco-eficientes reformistas y ONGs del movimiento de justicia ambiental transformador se dieron con el incremento de la violencia por el desalojo de 12 comunidades Q'eqchi' que ocupaban tierras donde se iba a expandir las plantaciones de caña de azúcar.

- Desde un punto de vista metodológico, el análisis de cualquier concepto como bienestar, pobreza a partir de indicadores, es necesario definir previamente desde qué narrativa se analizan.

- En Guatemala, las políticas nacionales destinadas a reducir la pobreza rural definen pobreza de manera diferente; por un lado el Programa de Competitividad propone reducir la pobreza residual (provocada por la falta de flujos monetarios) y la Política de Desarrollo Rural, la pobreza estructural (falta de fondos como tierra o estructuras) que permitan reproducir los flujos.

- Dos tipos de interpretaciones sobre la pobreza de los hogares son posibles en función de la narrativa elegida: 1) que la promoción de trabajo asalariado en las plantaciones de palma disminuye la pobreza (residual) de los hogares, al aumentar los flujos monetarios; o 2) que el acceso a tierra a favor de comunidades indígenas y estructuras productivas comunitarias reducen la pobreza estructural al tener acceso a los fondos que permiten producir flujos monetarios (ingresos) y materiales (alimento) a lo largo del tiempo.

- A partir del análisis de los modos de vida Q'eqchi', es inevitable darse cuenta lo lo importante que es nuestro "everyday politics" (la política cotidiana). Es decir nuestras acciones de nuestro día a día, como individuos, y como colectivo. Entendiendo "política" como el control, gestión, producción y el uso de recursos (tierra, dinero, agua, poder, educación, salud) y los valores e ideales que subyacen esas acciones.

10. Conclusions

- The results show that the extractive activity by the expansion of oil palm and sugar cane plantations increase gender, class and generation inequalities and environmental conflicts at different scales.

- At the territorial scale, they exacerbate historical conflicts related to land access and other resources such as water between Q'eqchi' households and the country's national elites.

- The visibility of these conflicts at national and international scales has been conditioned by the violence exercised by the government and business elites, the state's role in mediating to "solve" conflicts and nature, forms of mobilization and types of partnerships between international, national and local NGOs.

- At the community level, traditional Q'eqchi'institutions present in the communities found in the area of expansion of these monocultures are disabled due to land grabbing processes, increasing class and generation inequalities among households.

- The absence of part of the traditional Q'eqchi' institutions that govern land and work distribution in the communities located in the region of monoculture expansion socially increases the differences among older homes which have land and obtain more income and young households which do not have access to land and earn less income.

- At the household level, work in oil palm plantations has increased household incomes at the expense of other dimensions of human wellbeing, such as food security, freedom of choice and social relations, especially women's.

- Oil palm expansion creates social differentiation among households integrated into the market and subsistence farmers. In turn, rural work increases gender inequalities where women double their workday and renounce to social activities in households where men work in oil palm plantations, and inequalities between generations of men whom the company buys their labor (men under 30 years) and those without (men over 30 years old).

- Different stakeholder groups oppose the expansion of this type of extractive farming. On the one hand, Q'eqchi' communities resist on a daily basis through commoning practices. On the other hand, at a territorial scale communities in the Polochic Valley resist and mobilize through land occupations in favor of environmental and agrarian justice.

- The environmental justice movement manifests mainly at the territorial scale in the Polochic Valley, through everyday practices based on social relations of reciprocity, social cohesion and equitable distribution of resources such as land and land occupations. At national and international levels protests and claims also take place against the violation of human rights, land grabbing and agrofuels.

- It at the community level and in the everyday realm that the indigenous population from the Polochic develops their main forms of resistance. Specifically, the agrarian commons located in isolated areas (which have maintained some autonomy and social cohesion) are those who have preserved traditional institutions and have developed new mechanisms to counter the effects of the current dynamics of land grabbing.

- It is from examining institutional changes in different communities that it is possible to analyze how agrarian commons have been affected by external dynamics, in this case the expansion of flexible crops and processes of enclosure, and at the same time how they react differently depending on their spatial location (expansion areas or most isolated regions) and their origin.

- These forms of silent resistance through agrarian commons are explained through the paradigm of New Social Movements. The Q'eqchi' identity is essential to understand their traditional institutions and their way of resisting through agrarian common.

- At the territorial level, groups of Q'eqchi' households supported by various NGOs (development, peasant, research institutes, donors), are mobilized to occupy land that had been planted with sugar cane. This form of mobilization has been one of the most used by the peasant movement in the history of Guatemala.

- Land occupations by groups of peasant households and rural workers are explained from the paradigm of class struggle and the Resource Mobilization and Political Opportunity. Households struggle to access the means of production controlled by national elites, taking advantage of the auction of the fertile lands of the valley due to the collapse of sugar cane mill.

- Other actors like large "eco-efficient reformers" NGOs are mobilized for a group of communities and their access to land; but without showing a visible position against extractiveactivities.

- Alliances between eco-efficient reformists and NGOs from the transformative environmental justice movement occurred when there was increasing violence by the eviction of 12 Q'eqchi' communities that were occupying land in an area of sugar cane expansion.

- From a methodological point of view, the analysis of any concept as wellbeing or poverty indicators requires an explanation of which narratives are being used.

- In Guatemala, national policies aimed at reducing rural poverty define poverty differently. On the one hand the Competitiveness Programme aims to reduce residual poverty (caused by lack of cash flows) and Rural Development Policy, structural poverty (lack of funds as land or structures) that allow flows to reproduce.

- Two types of interpretations of household poverty are possible depending on the chosen narrative: 1) the promotion of wage labor in palm plantations reduces (residual) poverty of households, increasing monetary flows; or 2) land access for indigenous communities and productive community structures reduce structural poverty to have access to funds that allow produce cash flows (income) and materials (food) over time.

- From the analysis of the Q'eqchi' livelihoods, it is inevitable to realize how important it is our "everyday politics" (daily politics), our actions in our daily lives as individuals and as a collective. Understanding "politics" as the control, management, production and use of resources (land, money, water, power, education, health) and the values and ideals that underlie those actions.

11. Conceptos Claves/Key concepts

Acaparamiento de tierras/land grabbing: apropiación del control relativo de grandes extensiones de tierra y otros recursos naturales a través de una variedad de mecanismos que involucran inversiones de grandes cantidades de capital para extraer más cantidades de materiales que son destinadas tanto para consumo doméstico como para exportación.

Campesinado/peasant: Clase social cuyo medio de producción básico es la tierra. Cultivan la tierra básicamente para alimentarse.

Cultivos flexibles/flex crops: cultivos con múltiples usos (comida, combustible, uso industrial) que puede ser intercambiable, mientras que la falta de un tipo de suministro puede ser sustituido por otro cultivo flexible (Borras et al 2012).

Commons: mechanism tactical repertoire of resistance, as they can be spaces of alternatives to capital through the opening of counter-enclosures, that pose a limit to accumulation through practises and reinvent communities (De Angelis 2004). By re-working the environment the community shapes itself through collective institutions, shared territorial practices and languages (Sevilla-Buitrago, 2015)

Commoning: process of doing and being in common

Common property: formal or informal property regime that allocates a bundle of rights to a group. Such rights may include ownership, management, use, exclusion, access of a shared resource (Hess 2006,

Common pool resource: a common-pool resource (CPR), is categorized by two attributes: non-excludability and subtractability, meaning that exclusion (or control of access) to the resources is problematic and individual use of it is capable of subtracting from the welfare of other users (Berkes, 1989).Consumption is rival, exclusion is not feasible (Ostrom 2005). Resources or other assets that members of a group of people have direct access to and some degree of control over by virtue of their membership in a community, without such relationships necessarily being mediated through the legal and economic structures of states or formal markets (McCarthy 2009).

Community: organic whole, a spatial unit (small area and number of individuals), as a homogeneous social structure, and as a set of shared norms or common interested (see critical point of view in Agrawal and Gibson 1999). This study particularly supports the need to expect and explore social heterogeneity and multiple interests, rather than equating community with place (e.g., Bray 2009). However, as resource use and conservation outcomes also depend on past and present links between social groups, we suggest a focus on relationships is necessary to achieve a sufficiently nuanced understanding of community for conservation (Waylen et al. 2013).

Institutions: are the conventions, norms and formally sanctioned rules of a society. They provide expectations, stability and meaning essential to human existence and coordination. Institutions regularize life, support values and produce and protect interests.

Propertyright:social relationships among people, which contain enforceable claims to ri ght in sth (Fortmann, 2000)

Enclouser: procesos que refieren a la privatización o la apropiación de recursos naturales (tierra, agua, bosques) tanto por élites sociales o empresariales y/o el estado. Originariamente este concepto se ha referido a las privatizaciones de las tierras comunales en el siglo XIX en inglaterra a favor de grandes propietarios. Para Marx, enclouser y los consiguentes procesos de desposesión fueron las características “primarias” del sistema capitalista. Entos procesos hacen referencia tanto a la

mercantilización de los recursos como a la desposesión de los medios productivos. Actualmente, Harvey (2003) argumenta que estos procesos no han finalizado a pesar de estar ya en un sistema capitalista, sino que son recurrentes (no es un modelo lineal). Por lo que Harvey a los procesos de "acumulación primitiva" acuñados por Marx, los denomina procesos de "acumulación por desposesión" refiriéndose también a procesos de privatización de los bienes comunales (e.g., agua, bosques, tierra) o ampliando las fronteras del mercado (e.g los organismos modificados genéticamente).

Agrarian commons: land and other natural resources as productive factors that have come degree of control in the direct access and the use and management by peasant communities.

Pueblo de indios o "reducciones": fueron pueblos de indígenas en las cercanías de las haciendas creados para que la población no estuviera dispersa y poder someterla así al cobro de tributos y a trabajos forzados. La población no podía ausentarse sin previa autorización. "Era una cárcel con régimen de municipio". Fueron creados a partir de una Ley dictada por la Corona española en 1542 con la finalidad de controlar a la población desde la monarquía. En Guatemala fue a partir de una Cédula Real en 1601 que se ordenaron su creación. (Martín Peláez 1971).

Comunal Land in Guatemala: The 2005 Law for the Registry of Cadastral Information (*Registro de Información Catrastal RIC*) recognize communal lands in national law for the first time; it is specifically established that communal lands "are lands in property, possession or tenure of indigenous and peasant communities as collective entities, with or without legal standing (Ar 33). Article 65 of the RIC law establishes that "if commnal owneship, possesion or tenure of lands is determined during the process of the cadastral establishment, the RIC shall recognize and make the administrative declaration of communal land and issue the certifications" Nevertheless, communities are often no aware of this provision, nor are such legal provisions, in and of themselves, "sufficient to ensure collective right to communal lands" (Elías 2010).

CAP: Collective Agrarian Patrimony: A form of collective propiedad under state tutelage (PAC)

12. Apéndices

12.1. Entrevista semi-estructurada: Nivel comunidad

1.- Datos de la entrevista y entrevistados

Nombre comunidad	
Nombres entrevistados	
Posición en la comunidad	
Lugar de la entrevista	
Fecha	

2.- Historia y estructura de la comunidad:

¿Podría hacer un resumen de la historia de la comunidad? ¿cuándo se formó? ¿De dónde vienen? ¿cuánta gente eran y cuántos son ahora?

¿Cuándo se formó la comunidad?	
¿Cuándo llegaron a vivir aquí?	
¿De dónde venían?	
¿Dónde viven y dónde trabajan la tierra?	
¿Cuántos casas había al inicio?	
¿Cuántos casas hay ahora?	
Número de personas al inicio	
Número de personas ahora	
¿Hay tierra disponible para más casas?	

3.- Situación general de la comunidad

¿Cuál es la situación actual de la comunidad? *¿qué problemas legales tienen? ¿qué problemas a nivel organizativo? ¿otros problemas?*
¿Qué acontecimientos han marcado un antes y un después en la comunidad? ¿Cómo ha cambiado la

comunidad?
¿Cómo te imaginas la comunidad en un futuro (10 años)? *En términos prácticos, reales*

4.- Ubicación de la comunidad

Distancia desde el centro de la comunidad a... *Las distancias en tiempo deben indicar si es a pie o en pick-up*	Cabecera municipal	min	km
	Mercado de bienes de consumo	min	km
	Mercado donde se venden productos agrícolas	min	km
	Mercado donde se venden productos forestales	min	km
	Camino principal	min	km

5.- Organización de la comunidad

¿Qué asambleas realizan?	¿Para qué?	¿Cuándo? O ¿cada cuánto?	¿Quiénes participan?	¿Cuánto duran?

¿Cuál es el rol de los líderes comunitarios?
¿Cuál es el rol de los ajk´in o principales en la comunidad? ¿Cuál es la importancia de éstos en las comunidades?

6.- Gestión de la tierra y el agua

¿Cuánta tierra tiene la comunidad?	
¿En qué régimen de tenencia?	
¿Cómo deciden la distribución de lotes para casas y parcelas para cultivos?	
¿Cuánta tierra toca a cada casa/familia?	
¿Hay tierra disponible para más parcelas?	
¿Cómo gestionan el agua de riego?	
¿Cómo gestionan el agua de consumo domiciliar?	

7.- ¿Qué tareas comunitarias se realizan en la comunidad?

¿Qué cultivos se manejan como comunidad? *¿Cuánta superficie le dedican?* *¿Cuál fue la producción e ingresos del año pasado?*	Cultivo	Superficie	Producción	Ingresos
¿Qué otras actividades productivas se manejan comunitariamente?	Actividad	Producción	Ingresos	Observaciones

8.- ¿Tienen bosque comunitario? En caso que sí tengan ¿qué productos sacan de él?

Producto	**Normas de acceso**	**Cada cuánto**	**Cuánto**

9.- Animales comunitarios

Animales comunitarios	**Quién los alimenta**	**De qué se alimentan**	**Destino de animales**	**Cuánta gente alimentan**

10.- Otras tareas comunitarias

Tareas comunitarias	**¿Quiçen las hace? (***rango edades, sexo...***)**	**Frecuencia**	**Duración**

11.- Otras observaciones

12.2. Entrevista padres de familia

a) Datos Cuestionario

Número de cuestionario:	Fecha:
Lugar:	
Coordinadas: UTM: X: Y:	
Distancia al centro del pueblo más cercano Min Km	

b) Información del encuestado

Si el encuestado no recuerda la fecha exacta, aproximar a un acontecimineot relevante: acuerdos de paz, a poco de nacer, creación de la carretera...

Nombre:	Edad:
Posición en el hogar: Padre Madre	¿Es miembro de alguna Asociación, Cooperativa o Comité? ¿Cuál?
¿Dónde nació?	¿Cuando llegó a la comunidad?(*fecha, o acontecimiento)*
¿De dónde venía?*Nombre del lugar y Comunidad o hacienda*	¿Porqué vino a ésta comunidad?

c) Estructura demográfica del hogar y actividades de los miembros: ¿Quién vive en el hogar? ¿Qué actividades hace cada miembro de la familia? (Hombres)

ID Cód	**¿Cuáles son los miembros de su familia?** *(hacer una lista completa de todos/as las personas antes de seguir con las preguntas)*	**Relación con cada miembro** 1= Esposa/Esposo 2= Hijo/hija 3= Nieto/nieta 4= Sobrino/sobrina 5= Padre/madre 6= Hermana/hermano 7= Yerno/nuera 9= Abuela/ abuelo 10= Suegro/suegra 11= Otra relación (especificar)	**¿Vive en la misma casa?**
1			
2			
3			
4			
5			

ID Cód	**¿Cuáles son los miembros de su familia?** *(hacer una lista completa de todos/as las personas antes de seguir con las preguntas)*	**Relación con cada miembro** 1= Esposa/Esposo 2= Hijo/hija 3= Nieto/nieta 4= Sobrino/sobrina 5= Padre/madre 6= Hermana/hermano 7= Yerno/nuera 9= Abuela/ abuelo 10= Suegro/suegra 11= Otra relación (especificar)	**¿Vive en la misma casa?**
6			
7			
8			
9			

d) Agricultura

Tenencia de la tierra y producción

¿Cuánta tierra tiene? _____

¿Cuánta tierra presta a otros? _____

¿Cuánta tierra arrienda a otros? _____ ¿a cuánto? _____

¿Cuánto bosque tiene? _____

¿Qué productos cutiva?	**¿cuántas manzanas/cuerdas cultiva con [PRODUC-TO] en [SIEMBRA]?**	**¿Deja descansar esta tierra después de la cosecha? ¿cuánto tiempo?** 0= No Años= Sí	**Tierra en propiedad** [Cuerdas]	**Tierra prestada** [Cuerdas]	**Tierra arrendada** [Cuerdas]	**Precio arri-endo** [Q]	**¿Cuál es la inclinación de la parcela?** 1= Plano 2= Mod. inclinado 3= Muy inclinado	**¿Cuánto has cosechado de [PRO-DUCTO] en la [SIEM-BRA]?** QQ/Tarea Lb/Tarea Plantas/Tarea	**¿Cuánto vende?** QQ/Cosecha Unidades/Año	**¿A qué precio?** Q/QQ Q/Un.	**¿Dónde lo vender o a quién?** 1:Coyote 2:Comunidad 3:Mercado local 4: Mercado municipal 5: Otros_____
1 Maiz 1a siembra											
2 Maiz 2a siembra											
3 Frijol 1a siembra											
4 Frijol 2a siembra											
5 Frijol 3a siembra											
6 Cardamomo											
7 Chile											
8 Banano											
9 Yuca											
10 Piña											
11 Arroz											

¿Qué productos cutiva?	¿cuántas manzanas/cuerdas cultiva con [PRODUCTO] en [SIEMBRA]?	¿Deja descansar esta tierra después de la cosecha? ¿cuánto tiempo? 0= No Años= Sí	Tierra en propiedad [Cuerdas]	Tierra prestada [Cuerdas]	Tierra arrendada [Cuerdas]	Precio arri-endo [Q]	¿Cuál es la inclinación de la parcela? 1= Plano 2= Mod. inclinado 3= Muy inclinado	¿Cuánto has cosechado de [PRODUCTO] en la [SIEMBRA]? QQ/Tarea Lb/Tarea Plantas/Tarea	¿Cuánto vende? QQ/Cosecha Unidades/Año	¿A qué precio? Q/QQ Q/Un.	¿Dónde lo vender o a quién? 1:Coyote 2:Comunidad 3:Mercado local 4: Mercado municipal 5: Otros_____
12											
13											
14											
15											

Semillas

Cultivo	¿Dónde consiguió las semillas? 1= Compra 2= Intercambio 3= Guardadas 4= Regalada	Tipo de semillas 1= Criolla 2= Mejorada (híbrida)	¿Cuánta libras de semilla guardó/compró/intercambió?		¿A qué precio?	¿A quién le compró las semillas?
			1ªsiembra	2ªsiembra		
1 Maiz						
2 Frijol						
3 Frijol 3a siembra						
4						
5						
6						
7						

Cultivo	**¿Dónde consiguió las semillas?** 1= Compra 2= Intercambio 3= Guardadas 4= Regalada	**Tipo de semillas** 1= Criolla 2= Mejorada (híbrida)	**¿Cuánta libras de semilla guardó/compró/intercambió?**		**¿A qué precio?**	**¿A quién le compró las semillas?**
			1ªsiembra	**2ªsiembra**		
8						
9						
10 Descanso						
11 Bosque						

e) Uso de agroquímicos.

¿Cuál de estos agroquimícos ha aplicado este último año?

Tipo	¿A qué cultivo?	¿En qué parcela?
UREA		
TRIPLE 15		
20-20		
GRAMOXONE		
EDONAL		
GESAPRIN		
TAMARON		
FOLIDOL		

f) Usos del tiempo

Agicultura Usar calendario de la comunidad (Hombres)

Actividad	Siembra	¿Cuántos días tarda en [Activi-dad]?	¿A qué hora sale?	¿A qué hora regre-sa?	¿Cuánto tiempo tardas en llegar al lugar?	¿Cuántas personas van a [Actividad] ?			¿Cuánto pagan? ¿Incluye comida?		¿Cúantos días tienes ayuda en el trabajo?			De dónde son los mozos que contrata 1= de la comunidad 2= de otra comunidad
						Mozos (jornal)	Inter-cambio	familiar ¿Quién?	Sala-rio	1:Sí 0:No	Mozos (jornal)	Inter-cambio	Familiar	
Roza Maiz	1st siembra													
	2nd siembra													
Siembra Maiz	1st siembra													
	2nd siembra													
Limpia Maiz	1st siembra													
	2nd siembra													
Cosecha Maiz	1st siembra													
	2nd siembra													
Roza Frijol	1st siembra													
	2nd siembra													
Siembra Friijol	1st siembra													
	2nd siembra													
Limpia Frijol	1st siembra													
	2nd siembra													
Cosecha Frijol	1st siembra													
	2nd siembra													
Limpia Cardamomo														

Actividad	Siembra	¿Cuántos días tarda en [Activi-dad]?	¿A qué hora sale?	¿A qué hora regre-sa?	¿Cuánto tiempo tardas en llegar al lugar?	¿Cuántas personas van a [Actividad] ?			¿Cuánto pagan? ¿Incluye comida?		¿Cúantos días tienes ayuda en el trabajo?			De dónde son los mozos que contrata 1= de la comunidad 2= de otra comunidad
						Mozos (jornal)	Inter-cambio	familiar ¿Quién?	Sala-rio	1:Sí 0:No	Mozos (jornal)	Inter-cambio	Familiar	
Cosecha Cardamomo														
Preparación Arroz														
Siembra Arroz														
Cosecha Arroz														
Banano			Frec.:						[redacted]					[redacted]
Piña			Frec.:											
Yuca														

Otras actividades

Actividad	Con cuanta frecuencia [ACTIVIDAD]?		A qué hora comienzas?	A qué hora terminas?	Quién [ACTIVIDAD] contigo?
	Días	1= a la Semana 2= al mes 3= al año 4= Otro			
Dormir baja carga de trabajo	[redacted]				[redacted]
Dormir alta carga de trabajo					
Acarrear agua					
Recoger leña					

Limpieza de la casa					
Ir al mercado municipal					
Ir al mercado local					
Ir a la tienda comunidad					
Asambleas comunitarias					
Asambleas de comsiones o comités					
Ir a la iglesia					
Ayudar a otra gente					
Tareas comunitarias:					
1.-					
2.-					
3.-					

Carga de trabajo

¿Cuál es el/los meses de mayor carga de trabajo?	
¿Cuál es el/los meses de menor carga de trabajo?	

Trabajo asalariado

¿Alguien del hogar trabaja para alguienque no sea del hogar? En la misma comunidad en trabajaderos de otros, en otra comunidad en la caña, la	**¿Para quién trabajas? ¿Y dónde?** 1= Otro de la comunidad 2= En Otra comunidad (Cúal) 3= Empresa (Especificar) 4= Gobierno 5= Institución	**¿Cuándo trabaja?**		**¿En qué consiste el trabajo?**	**¿Cuánto te pagan?**	**¿Cuanto ganaste por el último trabajo? O ¿Cuánto esperas recibir?**	**¿Qué está incluido en el salario?** 1= Comida 2= Viaje 3= Prestaciones	**¿Cuánto tardas en llegar al trabajo?**
		¿Qué meses trabajas? 1= Enero 2=Febrero 3=Marzo 4=Abril 5=Mayo 6=Junio 7=Julio	**¿Cuánto tiempo trabajas?**					

palma, bananos... ¿Miembro?	(Especificar)	8=Agosto 9=Septiembre 10=Octubre 11=Noviembre 12=Diciembre			1= Q/jornal 2= Q/Ton 3=Q/mes		4=Nada 5=Otros	

g) Entretenimiento

Cuándo no estás trabajando ¿Qué te gusta hacer? Por ejemplo: Jugar fútbol, descansar, coser, visitar vecinos/familiares	Cada cuánto lo haces?	Cuánto tiempo dedicas a esta actividad?

h) Productos que recibe

¿Qué productos que da y/o recibe?	¿Con quién?	**¿Qué cantidad?**	**¿Cada cuánto tiempo?**

12.3. Entrevista madres de familia

a) Datos Cuestionario

Número de cuestionario:	Fecha:
Lugar:	
Coordinadas: UTM: X: Y:	
Distancia al centro del pueblo más cercano Min Km	

b) Información del encuestado

Si el encuestado no recuerda la fecha exacta, aproximar a un acontecimineot relevante: acuerdos de paz, a poco de nacer, creación de la carretera...

Nombre:	Edad:
Posición en el hogar: Padre Madre	¿Es miembro de alguna Asociación, Cooperativa o Comité? ¿Cuál?
¿Dónde nació?	¿Cuando llegó a la comunidad?(*fecha, o acontecimiento)*
¿De dónde venía?*Nombre del lugar y Comunidad o hacienda*	¿Porqué vino a ésta comunidad?

c) **Estructura demográfica del hogar y actividades de los miembros: ¿**Quién vive en el hogar? ¿Qué actividades hace cada miembro de la familia?

ID Cód	Nombres de los miembros del hogar *(hacer una lista completa de todos/as las personas antes de seguir con las preguntas)*	Edad	Sexo 1=mujer 0=hombre	Relación con cada miembro 1= Esposa/Esposo 2= Hijo/hija 3= Nieto/nieta 4= Sobrino/sobrina 5= Padre/madre 6= Hermana/hermano 7= Yerno/nuera 9= Abuela/ abuelo 10= Suegro/suegra 11= Otra relación (especificar)	Estado Civil 1=Soltero 2=casado 3=Viudo 4=Otro (especificar)	Si está casado. ¿Su marido/esposa vive en la misma casa?¿Quién es?		¿Va a la escuela/básico?	
						1:SI 0:NO	ID Code	1= Escuela 2= Básico 0=No	
1									
2									
3									
4									
5									
6									
7									
8									
9									

d) Usos del tiempo

Agicultura Usar calendario de la comunidad

Actividad	Siembra	¿Cuántos días trabajas [Actividad]?	¿A qué hora sale?	¿A qué hora regresa?	¿Cuánto tiempo tardas en llegar al lugar?	¿Cuántas personas van a [Actividad]?		¿Tiene que cocinar para los mozos? 1:SI 0:NO	¿Tienes que llevar la comida a los mozos? O comen en casa?
						Intercambio	familiar ¿Quién?		
Roza Maiz	1st siembra								
	2nd siembra								
Siembra Maiz	1st siembra								
	2nd siembra								
Limpia Maiz	1st siembra								
	2nd siembra								
Cosecha Maiz	1st siembra								
	2nd siembra								
Roza Frijol	1st siembra								
	2nd siembra								
Siembra Friijol	1st siembra								
	2nd siembra								
Limpia Frijol	1st siembra								
	2nd siembra								
Cosecha Frijol	1st siembra								
	2nd siembra								
Limpia Cardamomo									
Cosecha Cardamomo									
Preparación Arroz									
Siembra Arroz									
Cosecha Arroz									
Banano									
Piña									
Yuca									

Actividad	Siembra	¿Cuántos días trabajas [Actividad]?	¿A qué hora sale?	¿A qué hora regresa?	¿Cuánto tiempo tardas en llegar al lugar?	¿Cuántas personas van a [Actividad]?		¿Tiene que cocinar para los mozos? 1:SI 0:NO	¿Tienes que llevar la comida a los mozos? O comen en casa?
						Intercambio	familiar ¿Quién?		

Otras actividades

Actividad	**Con cuanta frecuencia [ACTIVIDAD]?**		**A qué hora comienzas?**	**A qué hora terminas?**	**Quién [ACTIVIDAD] contigo?**
	Días	**1= a la Semana** **2= al mes** **3= al año** **4= Otro**			
Dormir baja carga de trabajo					
Dormir alta carga de trabajo					
Acarrear agua					
Recoger leña					
Limpieza de la casa					
Ir al mercado municipal					
Ir al mercado local					
Ir a la tienda comunidad					
Asambleas comunitarias					
Asambleas de comsiones o comités					

Ir a la iglesia					
Ayudar a otra gente					
Tareas comunitarias:					
1.-					
2.-					
3.-					

Carga de trabajo

¿Cuál es el/los meses de mayor carga de trabajo?	
¿Cuál es el/los meses de menor carga de trabajo?	

Entretenimiento

Cuándo no estás trabajando ¿Qué te gusta hacer? Por ejemplo: Jugar fútbol, descansar, coser, visitar vecinos/familiares	Cada cuánto lo haces?	Cuánto tiempo dedicas a esta actividad?

Animales de traspatio

¿Qué animales tiene?	¿Cuántos?	¿Cuánto le costaron?	¿Cada cuánto y De qué les alimenta?		¿Cuántos son para consumo familiar?	¿Cuántos vende ?	¿A qué precio? *Q/unidad*	Frecuencia venta 1: mensual 2: trimestral 3: semestral 4: anual	¿Dónde lo vendes? 1:Coyote 2:Comunidad 3: otra comunidad 4:Mercado local 5:Mercado municipal 6: Otros (Especificar)	¿Cuánto es el tiempo de crianza? *meses*
			Frecuencia	Alimento						

Venta de otros productos (Mujeres)

¿Qué otros productos vendes? Por ejemplo: Bananos, Hamacas, Morrales.	**¿Cuánto vendes?**	**¿A qué precio?**	**¿Cada cuánto lo vende?**	**¿Dónde lo vende?** 1:Coyote 2:Comunidad 3: otra comunidad 4:Mercado local 5:Mercado municipal 6: Otros (Especificar)

e) Gastos del hogar

	¿Ha comprado [ITEM] en el último año?	**¿Con qué frecuencia ha comprado [ITEM]?** 1= cada semana 2= dos veces al mes 3= cada mes 4= cada 3 meses 5= cada seis meses 6= entre 6 y 12 meses 7= una vez al año 8= otro	**¿Cuánto gasta cada vez ?**
Productos del hogar			
Maíz			
Frijoles			
Chile			
Ropa			
Concentrado de animales			
Diezmo			

f) Productos que recibe

¿Productos que da y/o recibe?	¿Con quién?	¿Qué cantidad?	¿Cada cuánto tiempo?

12.4. Entrevistas abiertas ONGs

Análisis de la conflictividad en el Valle del Polochic, estrategias y criterios para alcanzar los objetivos de la resistencia campesina

Instituto de Ciencia y Tecnología Ambientales (ICTA)

Universidad Autónoma de Barcelona (UAB)

Gidhs/Edpac

Soy estudiante de la Universidad Autónoma de Barcelona y estamos analizando las estrategias y resistencias del conflicto en el Valle del Polochic; así como los criterios para alcanzar los objetivos de las resistencia campesina, por cada colectivo u organización.

Antes de comenzar quería preguntarle si es posible que le grabe y si tiene algún inconveniente en que sea publicado el nombre de la organización.

A.- Entrevista

Número de entrevista		*Fecha*		/	/
Entrevistador		*Nombre organización*			
Lugar de entrevista		*Grabación (si/no)*			
Hora de comienzo		*Hora de finalización*			

B.- Entrevistado/a

Nombre		*Género*	V		M	
Cargo/responsabilidad		¿Conocedor del caso del Valle del Polochic?	SI		NO	

C.- Organización/Institución

Año de su fundación		*Número de trabajadores*	
Sedes y oficinas en Guatemala		*Sedes y oficinas fuera de Guatemala*	
Zonas de trabajo en el país		*Tipo de proyectos o trabajo*	
Tiempo trabajando en el Polochic		*Periodos de mayor presencia*	

Fuentes principales de financiamiento	

D.- Conflictividad en el Valle del Polochic

D.1.- ¿Podría explicarme qué es lo que ocurre en el Valle del Polochic, porqué es un área de tanta conflictividad?

D.2.- ¿Desde cuándo se está dando esta conflictividad? ¿Siempre ha sido igual?

D.3.- Si no, cómo ha ido variando en el tiempo? ¿Podría separarme en fases/periodos de conflictividad que considere remarcables en el Valle del Polochic?

D.4.- ¿Qué ocurrió para que hubiera estos cambios de periodos?

D.5 .- ¿Qué actores considera importantes para entender la conflictividad en el Polochic, y por qué? ¿Qué actores son causantes del conflicto?

D.6.- ¿Qué actores considera importantes para apaciguar o disminuir la intensidad del conflicto?

D.7 ¿Cuándo y porqué su organización decide involucrarse y trabajar en el área?

E.- Objetivos y Estrategia de la organización/Institución en el Valle del Polochic

E.1.- ¿Podría explicarme los objetivos y lineamientos básicos de esta organización/colectivo o institución en el contexto del Valle del Polochic?

E.2 .-¿Cuáles han sido los principales actores locales con los que su organización ha estado trabajando? (líderes, comunidades y organizaciones comunitarias (de la sociedad civil local), municipalidades, representantes de las micro-regiones, instituciones del gobierno central)

E.3.-¿Cuáles han sido las acciones o proyectos que han venido realizando?

E.4.- ¿Qué periodos o momentos han sido los de mayor incidencia? ¿por qué?

E.5.- ¿Han trabajado o trabajan en coordinación o colaboración con otras organizaciones, o instituciones sobre la conflictividad en el Valle? ¿Cuáles?

E.6.- ¿Habían colaborado con esas organizaciones anteriormente en otros contextos o áreas del país? ¿en qué ocasiones?

E.7.- ¿Para qué les han servido esas alianzas?

E.8.- ¿Han realizado negociaciones o reuniones con el gobierno o con alguna de las instituciones gubernamentales? ¿en qué ocasiones?

E.9.- ¿Cómo valora usted los logros de las negociaciones con instituciones del gobierno central?

Ahora le voy a preguntar por el papel de su organización en tres etapas diferentes del conflicto del Valle del Polochic que me parecen importantes: durante los desalojos, después de los desalojos, durante la marcha campesina.

(Módulo para organizaciones que han trabajado en el Valle antes de 2011).

F.- Papel específico antes de los desalojos

F.1.- ¿Cuál fue el papel de su organización antes de los desalojos?

F.2.- ¿Qué acciones, medidas y estrategias tenían para mejorar la calidad de vida de las comunidades?

F.3.- ¿Tenían alianzas con otras organizaciones? ¿Y con comunidades locales?

F.4.- ¿Qué organizaciones cree que fueron claves en el apoyo a las comunidades?

F.6.- ¿Qué actores considera que fueron instigadores de la conflictividad?

G.- Papel específico durante los desalojos

G.1.- ¿Cuál fue el papel de su organización durante los desalojos?

G.2.- ¿Qué acciones, medidas y estrategias tomaron durante los desalojos?

G.3.- ¿Cuál era el principal objetivo de esas acciones?

G.4.- ¿Realizaron nuevas alianzas con organizaciones? ¿Y con comunidades locales?

G.5.- ¿Qué organizaciones cree que fueron claves en el apoyo a las comunidades durante los desalojos?

G.6.- ¿Qué actores considera que fueron instigadores de la conflictividad durante los desalojos?

H.- Post-desalojos

H.1.- ¿Cuál fue el rol de la organización después de los desalojos?

H.2.- ¿Qué acciones, medidas y estrategias tomaron después de los desalojos?

H.3.- ¿Cuál era el principal objetivo de esas acciones?

H.4.- ¿Realizaron nuevas alianzas con organizaciones? ¿y con comunidades locales?

H.5.- ¿Qué organizaciones cree que fueron claves en el apoyo a las comunidades después de los desalojo?

I.- 2012 la marcha campesina

I.1.- ¿Qué participación tuvieron durante la marcha campesina?

I.2.- ¿Porqué quisieron participar en la marcha, cuál era la expectativa de la marcha?

I.3.- ¿Qué reclamaron o pidieron con la marcha campesina?

I.4.- ¿Hubo nuevas alianzas con organizaciones? ¿Y con la población local?

I.5.- ¿Qué cree que se consiguió gracias a la marcha?

I.6.- ¿Desde su organización consideran que se cumplieron las expectativas?

J.- Percepción de éxito- entrega de tierras

J.1.- ¿En qué situación está ahora el conflicto del Polochic?

J.2.- ¿Cree que la situación de ahora es mejor que en las épocas anteriores? ¿Por qué? ¿Qué ha cambiado?

J.3.- ¿Desde la visión de su organización cree que se ha logrado algo en el tiempo que llevan trabajando en Valle del Polochic? ¿Qué?

J.4.- ¿Consideran la entrega de tierras a algunas familias del Valle del Polochic como uno de los logros conseguidos por el trabajo de su organización junto con otras organizaciones?

J.5.- Sino es así, ¿Qué sería para su organización un éxito? Y ¿por qué eso sería un éxito?.

¿Qué tendría que pasar para que se pueda celebrar un paso hacia delante?

K.- Futuro

K.1.- ¿Cómo ve el futuro en 25 años respecto la conflictividad en el Valle del Polochic?

K.2.- ¿Cómo ve el futuro de las comunidades en relación a la mejora o el empeoramiento de su calidad de vida en 25 años?

K.3.- ¿Como ve el futuro en 25 años de la resistencia del valle del Polochic?

K.4.- ¿Qué cree que tiene que cambiar en la estrategia de las organizaciones y las comunidades para que se solucione la conflictividad en el Valle? O por lo menos que disminuya la conflictividad?

K.5.- ¿Podría decirme qué cuatro cosas priorizaría cambiar para que mejorase la calidad de vida de los hogares indígenas campesinos que viven en el Valle?

12.5. Curriculum Vitae

Durante el doctorado fue autora de otras publicaciones académicas, de difusión científica a través de informes, video documentales, notas de prensa y radio y un informe de derechos humanos presentado ante las Naciones Unidas. Estas publicaciones son sobre la conflictividad agraria y ambiental en Guatemala; pero también sobre el sistema alimentario catalán, análisis de sistemas rurales, el Acaparamiento de tierras en Europa, mujeres y soberanía alimentaria.

Sistema alimentario Catalán

Gamboa, G. Kovacic, Z. Di Masso, M. **Mingorría, S.** Gomiero, T. Rivera-Ferré, M, and Giampietro, M. 2016. The complexity of food systems: Defining relevant attributes and indicators for the evaluation of food supply chains in the Spanish context. *Sustainability*, 8(6), 515

Abstract

The wide-ranging literature on food systems provides multiple perspectives and world views. Various stakeholders define food and food systems in non equivalent ways. The perception of the performance of food systems is determined by these specific perspectives, and a wide variety of policies responding to different aims are proposed and implemented accordingly. This paper sets out to demonstrate that the pre-analytical adoption of different narratives about the food system leads to non-equivalent assessments of the performance of food supply chains. In order to do so, we (i) identify a set of relevant narratives on food supply chains in Spanish and Catalan contexts; (ii) identify the pertinent attributes needed to describe and represent food supply chains within the different perspectives or narratives; and (iii) carry out an integrated assessment of three organic tomato supply chains from the different perspectives. In doing so, the paper proposes an analysis of narratives to enable the analyst to characterize the performance of food supply chains from different perspectives and to identify the expected trade-offs of integrated assessment, associating them with the legitimate but-contrasting views found among the social actors involved.

Análisis sistemas rurales

Ravera, F. Scheidel, A. Dell'Angelo, J. Gamboa, G. Serrano, T. **Mingorría, S.** Cabello, V. Arizpe, N. Ariza, P. 2014. Pathways of rural change: An integrated assessment of metabolic patterns in emerging ruralities**.** *Environment, development and sustainability, 16(4), 811-820.*

Abstract

While rural transformations are nothing new in human history, current pro-cesses of rural change occur under multiple forces at an unprecedented pace, involving profound and unexpected changes in land use and users, and rapid transformations in the metabolic patterns of rural systems. The present special section aims to shed light on current drivers and pathways of rural change by analyzing, under a common conceptual and theoretical framework, examples of new ruralities that are emerging as responses across different world regions. Within this context, this introduction presents: (1)

common research questions of the six presented cases of rural change; (2) the general theoretical and methodological framework of integrated assessment of societal metabolism adopted to analyze rural systems and (3) the main contributions and conclusions that could be drawn from six context-specific case studies from Asia, Latin America and Europe.

Acaparamiento de Tierras Europa

Aparicio, M. Flores, M. Laderos, A. **Mingorría, S,** Ortega, D. and Tudela, E. 2013. Land Access and struggles in Andalusia, Spain. Land concentration, land grabbing and people's struggles in Europe. *Transnational Institute (TNI).*

http://www.tni.org/sites/www.tni.org/files/download/land_in_europe_1.pdf

Abstract

Land concentration and land grabbing do not occur only in developing countries in the South; in fact, both are underway in Europe today, argues a new report by European Coordination Via Campesina and Hands off the Land network. It essay shows how the Common Agricultural Policy (CAP) subsidy scheme and other national policies are driving this dynamic an analysis of recent land issues in Andalusia, and their connection with rural poverty, as well as a description of an attempted land reform, the presentation of the Farmworkers'Union (SOC) and its role in land struggles in Andalusia, and the description of three land occupations, organised by the SOC, which have enabled daily labourers and farm workers to claim access to land and make a living out of previously abandonned or under-used land.

Guatemala- Derechos humanos

Aparicio, M. Bartlett, P. Cortada, N. Espinola, D. Giedraitytė I. Gironés, M. Haurie, L Laderos, A. Martínez, C. Mingorría, S. 2013. Situación de los derechos humanos en Guatemala 2011-2012. Conflictos agrarios, energéticos y extractivos Departamentos de Alta Verapaz, El Quiché y San Marcos. **Educación para la Acción Crítica (Edpac), Catedra UNESCO de la Universidad Politécnica de Cataluña, Grupo de Investigación en Derechos Humanos y Sostenibilidad (GIDHS) (Editores).**

Resumen

El presente informe recaba la información necesaria para verificar el grado de implicación del Estado guatemalteco en el cumplimiento de sus obligaciones adquiridas en materia de derecho internacional con las ratificaciones del Pacto Internacional de Derechos Económicos, Sociales y Culturales, el Pacto Internacional de Derechos Civiles y Políticos y el Convenio 169 de la Organización Internacional del Trabajo (OIT) respecto al estado de la población rural guatemalteca en el entorno de los proyectos de inversión en regiones relacionados con el agronegocio, la minería a gran escala y los proyectos hidroeléctricos. El informe centra la atención en las comunidades campesinas e indígenas por ser quienes se hallan en una situación de riesgo y vulnerabilidad mayores. La Misión obtuvo el máximo de información posible a partir de

entrevistas a actores institucionales y a testimonios de violaciones de derechos humanos, denuncias y noticias de prensa, para elaborar las conclusiones y recomendaciones con el fin de ser presentadas ante el Consejo de Derechos Humanos de NNUU en Ginebra, Suiza. Acción que fue realizada en abril de 2012 como aportación al Examen Permanente Universal realizado a Guatemala en septiembre y octubre de 2012. En Ginebra se contó con la colaboración de la organización internacional Food First Information and Action Network (FIAN).

Mujeres y soberanía alimentaria, Valle del Polochic

Mingorría, S. Gamboa, G y Alonso-Fradejas, A. 2011. "Mak'a kutan re hilank'" No hay días sin descanso. Postales de Centroamérica. Red de Solidaridad por la Transformación Social (REDS).

Alonso-Fradejas, A. y Mingorría, S. 2010. Mujeres Maya-Q`eqchi` en la ruta de la soberanía alimentaria: sosteniendo las economías campesinas ante el capitalismo agrario flexible en el Valle del Polochic, Guatemala. International Land Coalition Latin America (ILC).

Resumen

Desde el periodo colonial, América Latina (Indígena y Afro-descendiente) fue insertada en la economía mundial como proveedor de materias primas para sostener los patrones de producción y consumo de las metrópolis, primero, de los países "centrales" posteriormente y en la actualidad de éstos y de potencias emergentes del sur global (especialmente asiáticas). Un mecanismo de integración internacional subordinada, que contribuye a explicar el hecho de que la región haya venido siendo escenario de severos conflictos por la colisión entre diversos derechos , reivindicados y/o ejercidos, sobre el acceso, uso, tenencia y propiedad de la tierra y los bienes naturales. Conflictos cuyo abordaje se complejiza en el contexto de una economía global crecientemente deslocalizada e interdependiente al mismo tiempo. Entre las implicaciones de este modo de inserción internacional para los Estados subalternos destaca su creciente dificultad para proteger, respetar y facilitar la realización efectiva del Derecho Humano a la Alimentación «DHA» de sus ciudadanas y ciudadanos. Un derecho que tiene, como el conjunto de los Derechos Humanos, una dimensión internacional referida a la obligación de los Estados de no interferir en el disfrute del DHA de nacionales de terceros países, incluyendo la responsabilidad de los Estados en acuerdos sobre energía, agricultura, comercio, etc. Y es sobre esta dimensión internacional en tiempos de Globalización, que haremos hincapié en este trabajo.

Valle del Polochic

Mingorría, S y Gamboa, G. 2010. Metabolismo socio-ecológico de comunidades Q'eqchi' y la expansión de la agroindustria de caña de azúcar y palma africana: Valle del Polochic. Magnaterra Editores.

Resumen

El valle del río Polochic es un territorio en disputa. La expansión explosiva de los monocultivos de caña de azúcar y palma africana convergen con intereses mineros, hidroeléctricos, conservacionistas, finqueros-ganaderos, de explotación turística y, en

menor medida, con huleros, madereros, bananeros y de plantaciones de teca. Esto trae consigo un clima de agitación y conflicto entre comunidades, empresas y finqueros. Así como el aumento de la dificultad de las comunidades indígenas-campesinas del valle para acceder al derecho de acceso y tenencia de la tierra. En el presente estudio se analizan los actuales sistemas de afrontamiento llevados a cabo por comunidades Q'eqchi' para adaptarse/enfrentarse a las dinámicas agrarias y la conflictividad que se vive en el territorio.

Gamboa, G. y Mingorría, S. 2010. Políticas de desarrollo rural y relaciones de dependencia en hogares y comunidades campesinas Q'eqchi' del Valle del Polochic (Guatemala). Revista Territorios V. Instituto de Estudios Agrarios y Rurales de la Coordinación de ONGs y Cooperativas (Editores).

Resumen

El capitalismo agrario flexible, cuya vanguardia son los monocultivos extensivos de la caña de azúcar y la palma africana, junto con la explotación de minería de metales e hidrocarburos, el turismo de masas, y el control territorial del narcotráfico conducen los procesos de re-estructuración territorial. Procesos que permiten la apropiación de los recursos por parte de élites nacionales y empresas multi-nacionales, apoyadas por el capital financiero internacional. Todo ello deriva en una creciente conflictividad agraria, que en 2009 se tradujeron en alrededor de 1,500 casos, que involucraban a alrededor de 1 millón 200 mil personas, atendidos por la Secretaría de Asuntos Agrarios. La gran mayoría de estos casos son por temas de acceso a la tierra: disputa de derechos, ocupación de tierras tanto privadas, nacionales o municipales, conflictos por límites territoriales, y regularización. En el presente artículo presenta la situación del valle del río Polochic, Alta Verapaz (el segundo departamento con mayor número de conflictos registrados por la SAA). Y muestra desde la cotidianidad de hogares y comunidades, diversas estrategias desarrolladas para hacer frente a un contexto de creciente dificultad en el acceso y tenencia de la tierra. Además, se muestra cómo algunas de estas estrategias, fuertemente influenciadas por políticas gubernamentales de desarrollo rural, devienen y se reproducen altamente dependientes del mercado de trabajo y de alimentos.

Video-documental: conflictos palma aceitera, caña de azúcar y minería de oro en Guatemala

Documental sobre el impacto de los agrocombustibles y las luchas del pueblo Q'eqchi'. Aj Ral Ch'och (hijos de la tierra). Despojo y resistencia en la Guatemala del siglo XXI. Caracolproducciones e IDEAR-CONGCOOP. 2012.

Reportaje sobre el conflicto de la tierra. Desalojos en el Valle del Polochic. Guatemala. Caracolproducciones e IDEAR-COONGCOOP. 2011.

Documental sobre la minería de oro en El Salvador, Honduras y Guatemala. El oro o la vida. Recolonización y Resistencia en Centro América. Caracolproducciones. 2011. Premio *Survaival* en la X Edición del Festival de Cine y Derechos Humanos de Barcelona 2013.

Artículos en Prensa escrita, radio y otros:

Daniela Del Bene, Federico de María, Sara Mingorría, Sofía Ávila, Beatriz Saez y Grettel Navas. 2016. Las Diez Heridas del planeta. La Vanguardia (Antonio Cerrillo).http://www.lavanguardia.com/natural

Mingorría, S. 2014. Alta Verapaz: lágrimas de desarraigo con sabor agridulce. Traslado indigno de 110 familias desalojadas del Valle del Polochic a la finca Sactelá de Cobán. Prensa Comunitaria, Guatemala. https://comunitariapress.wordpress.com

Carmen Díaz (Pseudónomo). 2011. Placz dumnych Indian (El lloro de indígenas orgullosos). Angora. Traducción Marta Kulis.

Mingorría, S. 2010. Més de 600.000 persones ja han votat en contra dels megaprojectes miners. Setmanari de Comunicació. Directa Nº 204 pág 16.

Desalojos y tierra quemada por el agronegocio. Interview in Radio El Rincón del Sur. 2011.

Calendario Q'eqchi' 2011

Mapa mundial de conflictos EJatlas: https://ejatlas.org/conflict/sugarcane-cultivation-and-oil-palm-plantation-in-polochic-valley-guatemala