

## **Illich in the valley**

Applying conviviality as a lens for development in tribal India

*Colin McDonald*

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## **Abstract**

Sustainability has long been serving dominant political and economic interests under the guise of sustainable development. This political and economic co-option of sustainable development has given rise to a new slogan: “system change, not climate change”. Our crisis is no longer just an environmental one, but a structural one, in which our means of living have outdistanced the ends for which we live. One intellect who recognised this structural crisis was Ivan Illich, a radical thinker whose work was concerned with the structure of *tools* in our society. He believed that many of our tools today are manipulated by an industrial agenda that shape our meanings and expectations. Recognising this structural corruption, Illich provided conviviality as an alternative structure for society. A convivial society is one which maximises autonomy and fosters learning, sociality and community, while bound by responsibly limited tools. Although far from our current reality, the growing urgency of our environmental crisis beckons the need for more radical thoughts and approaches for sustainability. As such, this research applied conviviality as a lens to assess development, with a focus on development in the Apatani valley of northeast India. The Apatanis were a secluded and self-contained tribe in northeast India up until 1944, when colonial influences established a preliminary government outpost. Since that time, their society has undergone rapid state-led transformation towards a capitalist economy. By applying conviviality as a lens for development, this research has highlighted deep structural challenges for sustainability, not only in the Apatani valley, but the world at large. By looking beyond the surface of our tools and questioning their underlying structures, conviviality inspires the radical thought and hope we need for a truly sustainable world.

**Keywords:** Apatani, conviviality, development, Illich, sustainability, values

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# Table of Contents

- List of figures ..... i
- List of tables ..... ii
- Key Illich terminology ..... iii
- Key Apatani terminology ..... iii
- 1 Introduction ..... 1**
- 2 Understanding Illich..... 2**
  - 2.1 Conviviality ..... 3
  - 2.2 Industrial productivity..... 3
  - 2.3 Tools ..... 4
  - 2.4 Two watersheds ..... 5
  - 2.5 Framework for analysing conviviality ..... 6
- 3 Methodology ..... 7**
  - 3.1 Research approach..... 7
  - 3.2 Data collection ..... 8
    - 3.2.1 Primary data ..... 9*
      - Ethnographic interviews ..... 9*
      - Participant observations ..... 10*
    - 3.2.2 Secondary data ..... 10*
  - 3.3 Data analysis..... 10
    - 3.3.1 Analysing values ..... 11*

3.3.2 <i>Analysing tools</i> .....	12
<b>4 Development in the Apatani valley</b> .....	<b>14</b>
4.1 Situating the Apatani .....	14
4.2 Local Values .....	18
4.3 Transitioning society .....	20
<b>4.3.1 Learning tools</b> .....	<b>21</b>
<i>Traditional society</i> .....	21
<i>Current society</i> .....	21
<i>Convivial gains and losses</i> .....	22
<b>4.3.2 Health tools</b> .....	<b>24</b>
<i>Traditional society</i> .....	24
<i>Current society</i> .....	25
<i>Convivial gains and losses</i> .....	26
<b>4.3.3 Governance tools</b> .....	<b>28</b>
<i>Traditional society</i> .....	28
<i>Current society</i> .....	28
<i>Convivial gains and losses</i> .....	30
<b>4.3.4 Economic tools</b> .....	<b>31</b>
<i>Traditional society</i> .....	31
<i>Current society</i> .....	32
<i>Convivial gains and losses</i> .....	34
<b>4.3.5 Mobility tools</b> .....	<b>35</b>
<i>Traditional society</i> .....	35

<i>Current society</i> .....	35
<i>Convivial gains and losses</i> .....	36
<b>4.4 Summary of gains and losses</b> .....	<b>38</b>
<b>5 Implications for sustainability</b> .....	<b>41</b>
<b>6 Reflections and conclusions</b> .....	<b>42</b>
<b>7 References</b> .....	<b>44</b>



## List of figures

(All photographs taken by author)

Figure 1. Visual representation of the research approach .....	8
Figure 2. Map of Arunachal Pradesh with study location of Ziro (source: Zephyretta, 2011) .....	14
Figure 3. Wet-rice plots in the Apatani valley surrounded by forests and hills.....	15
Figure 4. Typical Apatani village home, blending the traditional with the modern .....	16
Figure 5. An elderly Apatani woman with facial tattoos and nose plugs .....	17
Figure 6. A <i>nyibu</i> performing a ritual at the altar of a fellow clan member’s home .....	24
Figure 7. A female <i>patang</i> cultivating a rice field.....	33
Figure 8. Dams of the rice fields serve as footpaths throughout the valley.....	36
Figure 9. Summary of the traditional and modern tool structures in Apatani society.....	38
Figure 10. Summary of past and present conviviality in the four realms of Apatani society .....	40

**List of tables**

Table 1. Examples of convivial and industrial tools, based on Illich (1973) .....4

Table 2. Framework for identifying convivial and industrial tools in society, based on Illich (1973).....7

Table 3. Example of comparing the structure of tools between past and present society.....12

Table 4. Summary of emergent values within different generational groups .....19

Table 5. Summary of convivial gains and losses for Apatani learning tools .....23

Table 6. Summary of convivial gains and losses for Apatani health tools.....27

Table 7. Summary of convivial gains and losses for Apatani governance tools .....31

Table 8. Summary of convivial gains and losses for Apatani economic tools .....35

Table 9. Summary of convivial gains and losses for Apatani mobility tools .....37

## Key Illich terminology

<b>Conviviality</b>	Autonomous and creative interaction between people and their environments
<b>Industrial productivity</b>	The conditioned response of people to the demands made upon them by others and man-made environments
<b>Tools</b>	Any rationally designed device; mostly in reference to societal structures and institutions throughout this paper
<b>Structure of tools</b>	The underlying means or purpose of tools; mostly denoted as convivial or industrial throughout this paper
<b>Convivial tools</b>	Tools guided by political process, which foster autonomous learning, sociality and community
<b>Industrial tools</b>	Tools controlled by experts or an elite, which shape personal values
<b>Manipulative tools</b>	Same as industrial tools; they shape personal values
<b>Values</b>	Ideals that give significance to our lives, which are reflected through the priorities of our choices
<b>Watersheds</b>	Significant historical turning points

## Key Apatani terminology

<b>Apatani</b>	Distinct tribal group of Arunachal Pradesh
<b>Ziro</b>	Administrative name of the Apatani valley
<b><i>Donyi-Polo</i></b>	Traditional animist belief of the Apatani
<b><i>Nyibu</i></b>	Traditional Apatani priest/shaman
<b><i>Gaunbora</i></b>	Government appointed village headman
<b><i>Buliang</i></b>	Traditional Apatani village council
<b><i>Patang</i></b>	Traditional Apatani labour group

# 1 Introduction

“The means by which we live have outdistanced the ends for which we live. Our scientific power has outrun our spiritual power. We have guided missiles and misguided men.” – Martin Luther King, Jr., 1963

As a normative concept about what to develop, what to sustain, and for how long (Parris & Kates, 2003), sustainability has long been serving dominant political and economic interests under the guise of sustainable development (Brown, 2016). Instead of guiding progress towards a more equal and just world, sustainable development only further reinforced and justified the very paradigm of economic growth that it had set out to deconstruct (Hove, 2004). This political and economic co-option of sustainable development has given rise to a new slogan: “system change, not climate change” (Climate Justice Action, 2010). Our crisis is no longer just an environmental one, but a structural one, in which our means of living have outdistanced the ends for which we live.

One intellect who recognised these underlying structural manipulations was Ivan Illich, a radical and courageous intellectual with a deep concern for our unfolding (Fromm, 1971). Much of Illich’s work was concerned with the structures or *tools* in our society and how they enable or restrict our ability to create meaning in the world. He believed that manipulative or *industrial* tools inevitably lead to the institutionalisation of values; a process by which the structures in society come to shape our meanings and expectations (Illich, 1973). Moving beyond critique, Illich (1973) outlined a methodology by which to recognise this structural corruption of values and provided conviviality as an alternative structure for society. A convivial society is one which maximises autonomy and fosters learning, sociality and community, while bound by responsibly limited tools (Illich, 1973).

The growing urgency of our current environmental crisis beckons the need for more radical thoughts and approaches for sustainability (Brown, 2016). Illich’s radical conception of a convivial society is one such idea that stands to challenge the manipulative and unsustainable structures in society today. As such, this research aims to apply conviviality as a lens for assessing development, with a focus on development in the Apatani valley of northeast India. The rationale behind selecting this study location is based on the significant pace and depth of change experienced in the Apatani valley over the past seventy years (Blackburn, 2008). The Apatanis were a secluded and self-contained tribe in northeast India up until 1944, when colonial influences established a preliminary government outpost (Fürer-Haimendorf, 1955). Since that time, their society has undergone rapid state-led transformation towards a capitalist economy (Harris-White, Mishra & Upadhyay, 2009). While culture is dynamic and change is inevitable, the dramatic pace of development in the Apatani

valley makes it an exceptional case to study. Through this case, I aim to address the following two research questions:

- I. What have been the convivial gains and losses of development in Apatani society since the establishment of state authority in the Apatani valley?
- II. What are the implications of these gains and losses for sustainability?

## 2 Understanding Illich

In order to understand my research, we must first understand Illich. This section serves as a conceptual framework with the purpose to provide an understanding of the ideas and assumptions of Ivan Illich. After introducing Illich, I will go on to explain some of the key ideas explored in his 1973 publication, *Tools for Conviviality*, namely: conviviality, industrial productivity, tools, and watersheds. The final section presents my comparative framework for analysing conviviality.

Ivan Illich was a courageous and radical intellectual whose whole thinking was concerned with the unfolding of humanity; physically, spiritually and intellectually (Fromm, 1971). Born in Vienna in 1926, he studied theology and philosophy in Rome and obtained a PhD in history in Salzburg before moving to New York City to work as an assistant pastor (Illich, 1973, p.vi). In 1956 he was appointed vice-rector to the Catholic University of Puerto Rico and by 1961 he co-founded the controversial Centre for Intercultural Documentation (CIDOC) in Cuernavaca, Mexico (Illich, 1973, p.vi). The centre closed in 1976, as Illich feared that its growing institutionalisation would eventually lead to its corruption (Illich, 2002, p.236). It was during this period that Illich published four of his most widely known books: *Deschooling Society* (1971), *Tools for Conviviality* (1973), *Energy and Equity* (1974), and *Medical Nemesis* (1976). In the wake of the CIDOC, Illich lived his life between Mexico, Asia, and a number of visiting professorships in the United States and Europe (Mitcham, 2002, p.9). He passed away in 2002, but his ideas continue to inspire radical thought around the world. His conception of conviviality has been considered a key characteristic for a degrowth society (Kallis, Demaria & D'Alisa, 2015).

## **2.1 Conviviality**

Coviviality, as defined by the online English Oxford Dictionary is, “the quality of being friendly and lively”. However, Illich goes beyond this definition to describe it as “autonomous and creative intercourse among persons, and the intercourse of persons with their environment” (1973, p.11). There lies an important distinction between these two definitions, where the first is concerned with jolliness, and the latter is more concerned with the enjoyment of personal energy and freedom – freedom which is only limited by the equal freedom of another (Illich, 1973, p.12).

Conviviality does not only denote a desirable state of being for the individual, but also a desirable state of being for society as a whole. In this sense, Illich uses the term ‘convivial’ to describe a modern society that places responsible limits on their tools, where “modern technologies serve politically interrelated individuals rather than managers” (1973, p.xii). Here, it is important to note that conviviality does not imply a regression to former times and a rejection of all machinery, but rather a progressive step toward a more social and autonomous world, where technology is designed for people, rather than “enslaving man to the machine” (Illich, 1973, p.33). The convivial society is one where political arrangements guarantee the protection of survival, justice and self-defined work (Illich, 1973).

## **2.2 Industrial productivity**

Throughout *Tools for Conviviality*, Illich constantly contrasts conviviality with industrial productivity, and considers this as the dominant backdrop of modern society. Illich denotes industrial productivity as the opposite of conviviality, describing it as “the conditioned response of persons to the demands made upon them by others, and by a man-made environment” (1973, p.11). This definition broadens the scope for understanding industrial productivity as not just related to the processing and manufacture of goods, but rather to a structure which shapes the expectations of people. In its essence, industrial productivity denotes the structure of the “Western tool” (Hoinacki & Mitcham, 2002).

### 2.3 Tools

“Tools are intrinsic to social relationships. An individual relates himself in action to his society through the use of tools that he actively masters, or by which he is passively acted upon. To the degree that he masters his tools, he can invest the world with his meaning; to the degree that he is mastered by his tools, the shape of the tool determines his own self-image.” (Illich, 1973, p.21)

The quote above conveys an important ontological assumption: tools shape the way we relate to the world. As such, Illich focuses his analysis on the *structure of tools* and not on the character of their users (Illich, 1973, p.15). The structure of tools refers to the underlying *means* or *purpose* of the tool, rather than the surface form or function. In the case of Illich, these structures are often classified as either convivial or industrial. For example, when referring to an institution such as education, Illich (1973) is not as interested in the architectural design of school buildings or how a teacher engages their students, but rather in its industrial structure, which prepares people for life in a man-made world.

It can be difficult to imagine how one might recognise and understand the structure of tools within society. Illich used the term ‘tool’ broadly to denote all rationally designed devices, from physical hardwares like brooms and hammers to invisible institutions like education and medicine (1973, pp.20-21). Illich’s broad and non-specific definition of tools makes them often difficult to grasp (Nowicka & Vertovec, 2013). As Illich never provided any explicit categories of tools, I have made a preliminary attempt to identify the most prominent societal tools types based on my reading of *Tools for Conviviality*. From this process, five major tool types emerged (presented in Table 1 below), which serve as the structure for my analysis in section 4.3. These tools listed below should not be considered as exhaustive.

**Table 1. Examples of convivial and industrial tools, based on Illich (1973)**

<b>Tool types</b>	<b>Convivial tool</b>	<b>Industrial tool</b>
Learning tools	Voluntary workshop	Compulsory schooling
Health tools	Natural remedy	Prescribed medicine
Governance tools	Participatory politics	Exclusionary politics
Economic tools	Local market	Stock market
Mobility tools	Footpath	Highway

Table 1 above provides examples of convivial and industrial tool types. Convivial tools are guided by political process and foster autonomous learning, sociality and community. They can be easily used or accessed by anybody, as often as desired, for their own self-defined purposes (Illich, 1973). For example, a footpath is convivial as it enables the use and enjoyment of the one resource that is almost equally distributed amongst all people: “personal energy under personal control” (Illich, 1973, pp.11-12). Although the footpath can be used in manipulative ways, such as for motor-vehicle travel, the primary structure of the footpath remains convivial. On the other hand, industrial tools are generally controlled by a few and shape the meanings and expectations of a majority. Illich terms this manipulation “the institutionalisation of values”, a process whereby institutions come to define the purpose (1973, pp.19-20). The highway is an industrial tool as it drives a wedge between environmental landscapes and social classes, granting access and dependency to those who can afford it, and degrading the mobility of those who cannot.

## **2.4 Two watersheds**

In order to understand what Illich intends with *means* and *ends*, it is useful to understand the two watersheds that the tools in our society are subject to. A watershed is an event that marks a major historical turning point and Illich refers to two watersheds that many institutions have passed through since the industrial revolution. A first watershed is passed when personal autonomy over a tool is replaced by dependency on a more effective or efficient procedure for the tool. For example, modern medicine passed its first watershed around 1913 when, for the first time in history, patients started having more than a fifty percent chance of receiving effective treatment from a medical school graduate (Illich, 1973, p.1). A second watershed is passed when the rationale that guided a tool through its first watershed is then used to justify more of the same. It is during this period of transition from the first to the second watershed that *means* turn into *ends*. The first watershed creates a class of experts or elites, who then determine and constantly revise the value of the tool. To use the same example, modern medicine passed its second watershed around the mid 1950’s when it shifted from a *means* for healing into an *ends* for ‘providing health’ as determined by a self-certifying medical elite:



“Huge amounts of money were spent to stem immeasurable damage caused by medical treatments. The cost of healing was dwarfed by the cost of extending sick life; more people survived longer months with their lives hanging on a plastic tube, imprisoned in iron lungs, or hooked onto kidney machines. New sickness was defined and institutionalized; the cost of enabling people to survive in unhealthy cities and in sickening jobs skyrocketed. The monopoly of the medical profession was extended over an increasing range of everyday occurrences in every man’s life.” (Illich, 1973, pp.2-3)

## **2.5 Framework for analysing conviviality**

Since Illich never provided an explicit framework to analyse conviviality in society, I have made a first attempt to develop such a framework for the purposes of this research. Although Illich avoided the reduction of society down into separate spheres, I have had to do this in order to operationalise his ideas in my analysis. The framework is laid out as a table for comparative analysis of convivial and industrial tools within the social, political, economic and environmental realms of society (see Table 2). Illich talks extensively about ecological limits, and as such, I have decided to include the environmental realm as part of society as it moves beyond the human-nature dichotomy and helps to integrate environmental and social sustainability. The decision to base this framework around a comparison of convivial and industrial tools is based on Illich’s distinction of conviviality as the opposite of industrial productivity (1973, p.11). However, it should be noted that these are two extremes, and that most tools lie somewhere in between the two or exhibit both convivial and industrial elements. The focus of *Tools for Conviviality* is on the structure of the tools, hence I have chosen to develop a framework which contrasts between the general structure of convivial and industrial tools, based on my reading of the book. The framework in Table 2 below serves as my basis for analysing conviviality in society, which I apply later in section 4.3.

**Table 2. Framework for identifying convivial and industrial tools in society, based on Illich (1973)**

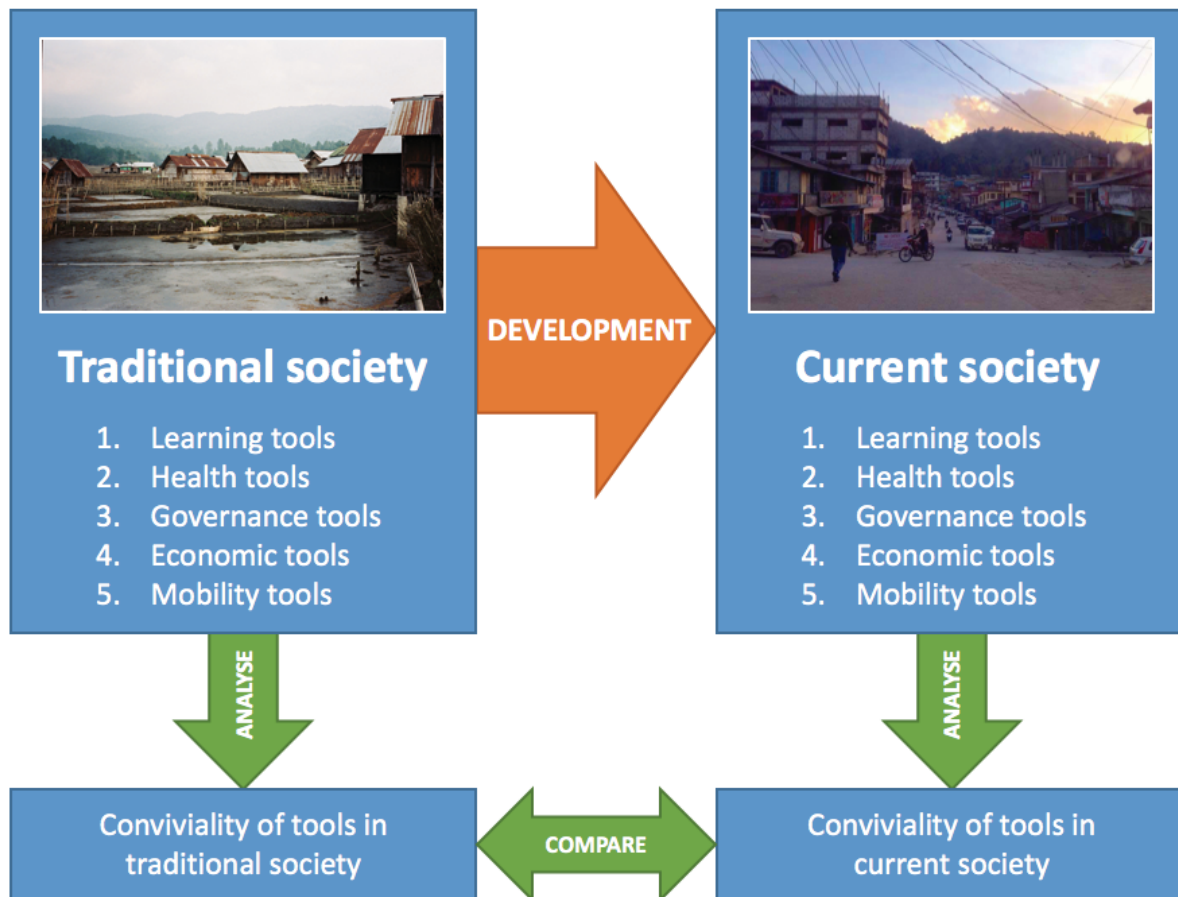
Realm	Structure of tools	
	Convivial	Industrial
Social	<u>Autonomous and creative interaction:</u> Tools promote autonomous and creative intercourse among persons, with each other and their environment	<u>Conditioned response:</u> Tools promote conditioned response of persons with the demands made upon them by others, and a man-made environment
Political	<u>Governed by political process:</u> Tools are established and governed by political process, under public control	<u>Governed by experts/professional elite:</u> Tools are established and governed by experts/professional elites
Economic	<u>Equal and just access/distribution:</u> Tools prioritise equal and just access to resources for all members of society	<u>Unequal and unjust access/distribution:</u> Tools restrict equal and just access to resources for all members of society
Environmental	<u>Responsible limits to growth:</u> Tools are bound by ecological limits	<u>Unlimited growth:</u> Tools are not bound by ecological limits

### 3 Methodology

The steps taken to carry out this research involved: (1) establishing an approach, (2) collecting data, and (3) analysing data. This section will outline the processes involved during each of these steps.

#### 3.1 Research approach

Applying conviviality as a lens for assessing development in Apatani society required me to: (1) construct two temporal-specific overviews of Apatani society, (2) analyse both overviews through Illich’s lens of conviviality, and (3) compare conviviality between the two overviews. The first overview is of traditional Apatani society prior to the arrival of external authority in 1944, while the second overview is of the current state of their society. These two overviews were then analysed according to five societal tools presented in section 2.3 of my conceptual framework. The analysed overviews were then compared to determine convivial gains and losses as a result of development.



**Figure 1. Visual representation of the research approach**

Society is dynamic and always changing, but in order to compare the conviviality of past and present tools in the Apatani valley, static overviews of their society had to be constructed. Prior to the arrival of external authority in 1944, Apatani society had been characterised by a high degree of stability (Fürer-Haimendorf, 1962, p.61). For purposes of analysis, I define this period of stability as “traditional society”, which includes the general characteristics of their social, political, economic and environmental spheres prior to 1944. On the other hand, I refer to “current society” as the general characteristics of their social, political, economic and environmental spheres that exist today.

### **3.2 Data collection**

The purpose of my data collection was to gather relevant material to construct overviews of past and present society in the Apatani valley. Data was collected through both primary and secondary means. Primary data was collected over the course of a week in the Apatani valley. Secondary data was sourced through relevant books and online publications.

### ***3.2.1 Primary data***

Primary data was sourced from field interviews and observations. Due to the ethnographic nature of my fieldwork, there was no possibility to arrange fixed interviews as I had limited local contacts in the Apatani valley. As such, these opportunities always arose spontaneously, typically whilst passing through fields and villages with a local guide. This limited the data to the people that were in the fields (typically adult women) and villages (typically elderly women) during the daytime. Men generally worked in the town or the surrounding forests during the day, while most children were in school. However, efforts were made during the fieldwork to achieve a gender balance amongst the interviews.

#### ***Ethnographic interviews***

Due to the informal nature of ethnographic interviews, it is best to think of them as friendly conversations – rather than formal interviews – between researcher and informant (Spradley, 1979). These conversations were centred around the question, “What is the good life for you?”. This central question was chosen based on its subjective and value-laden nature, as the purpose of the interviews was to reveal individual values and perspectives. Beside this central question, the rest of the conversation generally revolved around family, work and memories of bygone times, which revealed implicit values and insights into Apatani life, both past and present. Having just one central question gave me the freedom to conduct the interviews in a non-bureaucratic manner, allowing for the sharing of open and contextual information (Hopf, 1978).

Five women and five men were interviewed and their ages ranged from 26 to around 80, in order to get an understanding of individual values across different generational groups. Of the ten interviews conducted, two were in the form of narrative walks with local guides, whilst the other eight interviews were typically situated in or near the home of the participant. Narrative walks are a multi-purpose method in which the spatial, physical, temporal and social conditions of an area are explored by walking through a landscape together with a local knowledge-bearer (Jerneck & Olsson, 2013). Three of the interviews were translated with the help of a local guide, while the remaining five interviews were conducted independently with English-speaking Apatanis. One of the translated interviews was conducted as a group interview with three women working in the fields, for which the same open interview structure was used. Although the individual voice was replaced by a collective one, their collective response still reflected common individual values and perspectives, as the three women were childhood friends and worked together every day.

### ***Participant observations***

Fieldwork involved daily narrative walks through the surrounding rice fields and villages together with a local guide. Two different Apatani guides provided their expertise during fieldwork period, both of whom were had grown up in the valley and lived there for most of their lives. My primary guide (Mama) was a 47-year-old father and university-graduate who had been working as a guide for around sixteen years. Due to a family issue, Mama was not available on my last day of fieldwork and so I received assistance from another guide (Tago), a young 26-year-old man who had been working as a guide for the past three years. Both guides shared their local knowledge about the social and environmental landscape during each narrative walk, which I was able to verify through continuous interaction with them and the surrounding landscape (Jerneck & Olsson, 2013). These walks enabled rich documentation of Apatani life in the form of recorded interviews, notes, drawings and photos.

### ***3.2.2 Secondary data***

Secondary data was made up of a variety of books and online publications relevant to Apatani history and society. Most physical texts were sourced through various university libraries, while some were collected during the fieldwork. Online texts were sourced through databases such as Scopus and Google Scholar. The most useful texts for this task were generally anthropological in nature, particularly those of (but not limited to): Christoph Furer-Haimendorf (colonial anthropologist), Stuart Blackburn (post-colonial anthropologist), and Takhe Kani (Apatani writer).

### ***3.3 Data analysis***

The purpose of my data analysis included all three steps of my research approach: (1) construct two temporally-spaced overviews of the tools within Apatani society, (2) analyse both overviews through Illich's lens of conviviality, and (3) compare conviviality between the two overviews. Each of these steps was done with reference to the ideas and tables presented in my conceptual framework (section 2). The field interviews had to first be analysed before they could meaningfully contribute to the overview of current Apatani society (step 1). This process is described below under the sub-heading "Analysing values". Steps 2 and 3 of my research approach are described below under the sub-heading "Analysing tools".

### **3.3.1 Analysing values**

The purpose of analysing values was to (1) identify individual values amongst various generational groups, and (2) connect trends in values within and between the different generational groups. The interviews were analysed through a process of inductive category formation (Mayring, 2014) and individual values were identified following Hall's (2006) definition of values. Connecting trends in values was done by categorising common values within each group and then comparing them between the other groups. I distinguished three different generational groups based on age: young adults, adults, and elders (presented later in Table 4). The analysed individual values were eventually used to complement the analysis of societal tools.

Values researcher, Brian Hall, states that values are "the ideals that give significance to our lives, that are reflected through the priorities that we choose, and that we act on consistently and repeatedly" (2006, p.21). Following on from Hall, I identified individual values based on what the participants chose to give priority to during our conversations. The interviews were centred around the deeply subjective and open question, "What is the good life for you?", which allowed participants to choose a number of priorities (values) which they held to be important.

The recorded interviews were selectively transcribed to include all conversation relevant to the research. The transcriptions were coded line-by-line and values emerged through a process of inductive category formation. This process involved summarising categories directly from the transcriptions and not from theoretical considerations (Mayring, 2014). My inductive category formation focused on identifying both explicit and implicit values.

Explicit values were openly stated priorities related to what people considered important for a good life, typically in response to the "good life" question. However, explicit values were also expressed throughout other stages of the open conversation. For example, one father expressed that his dream for his children was for them to have a good education. Here, I identified formal education as an explicit value, even though it was not included in his response to the "good life" question.

Implicit values arose through a deeper analysis of the selective transcriptions based on contextual factors such as age, gender, family, occupation and lifestyle. For example, two of the women interviewed were both school teachers and all of their children had received relatively high levels of tertiary education, which implied that formal education for them was an important value. Through casual conversations about family, work and daily life, implicit values could be extracted from the interview data.

### 3.3.2 Analysing tools

The purpose of analysing tools was to (1) identify the structure (convivial/industrial) of various tools in both past and present society, and (2) compare these past and present structures to determine whether conviviality has been gained or lost over time. Identifying the structure of various tools in both past and present Apatani society was done according to the criteria in Table 2 of my conceptual framework (section 2). Once the structures of the tools were identified, they were filled into a comparative table for analysis and colour-coded as either green if the tool was *more* convivial, or orange if the tool was *more* industrial.

Due to the nuances and complexities of societal structures, determining a tool as convivial or industrial in absolute terms was not possible. Rather, tools were identified *relatively*; either as *more* convivial or *more* industrial (but not both), based on the available data. For example, access to a health centre in every village may be convivial, but if the cost of an appointment or treatment is privately determined and only affordable for the rich, then the presence of health centres is *relatively more* industrial, even though it contains convivial elements. Furthermore, if health centres did not exist in the past, then their presence in current society would constitute a developmental loss of conviviality in the *economic realm*, as this example was in relation to the *access and distribution* of health centres.

Table 3 below outlines the structure of the comparative table used and provides an example of how it was colour-coded. This process was applied to all five tools analysed in this research, which resulted in five comparative tables. These tables then enabled me to assess the development trends between the five tools and across the four realms.

**Table 3. Example of comparing the structure of tools between past and present society**

Realm	Past society		Present society	
	Convivial tool	Industrial tool	Convivial tool	Industrial tool
Social (1)	Autonomous and creative interaction	Conditioned response	Autonomous and creative interaction	Conditioned response
Political (2)	Governed by political process	Governed by experts/ professional elite	Governed by political process	Governed by experts/ professional elite
Economic (3)	Equal and just access/ distribution	Unequal and unjust access/distribution	Equal and just access/ distribution	Unequal and unjust access/distribution
Environmental (4)	Responsible limits to growth	Unlimited growth	Responsible limits to growth	Unlimited growth

In order to grasp the analysis process, I will refer to the example shown in Table 3 above. A green box denotes a convivial tool, whilst an orange box denotes an industrial tool. As can be seen, the past society exhibited conviviality in the social and political realms, while its economic and environmental spheres were shaped by industrial tools. On the other hand, present society exhibits industrial tools within the social, political and economic realms, but is convivial in its environmental sphere. Therefore, it can be said that the society experienced a loss of conviviality in its social and political spheres, but gained conviviality within its environmental realm, while the structure of the tools in its economic sphere remained relatively unchanged. For more tangible examples, see my analysis in section 4.3.



## 4 Development in the Apatani valley

In order to apply conviviality as a lens for development in the Apatani valley, it is important to establish overviews of a past and present state of Apatani society. Therefore, this section will (1) situate the Apatani tribe within a global context, (2) present field data on local values, (3) provide an overview of the tools in past and present Apatani society and assess their conviviality, and (4) summarise their convivial gains and losses since modern development.

### 4.1 Situating the Apatani

The Apatani are one of 26 major tribes in Arunachal Pradesh (Pandey, Durah & Sarkar, 1999). Arunachal Pradesh is one of the largest states in northeast India and shares an international border with China, Myanmar and Bhutan (see Figure 2). As well as its vast cultural diversity, Arunachal Pradesh is also rich in biodiversity and has been labelled a global “biological hotspot” (Myers et al., 2000). Most of the state lies within the Eastern Himalayan region and is dominated by hills and mountains. Amongst this hilly landscape lies Ziro (red dot in Figure 2), a tranquil valley that has been home to the Apatani people for some thousand years (Kani, 2012). The Apatani population has risen from around 8,000 in the 1940’s (Blackburn, 2010) to approximately 35,000 today (Blackburn, 2012).

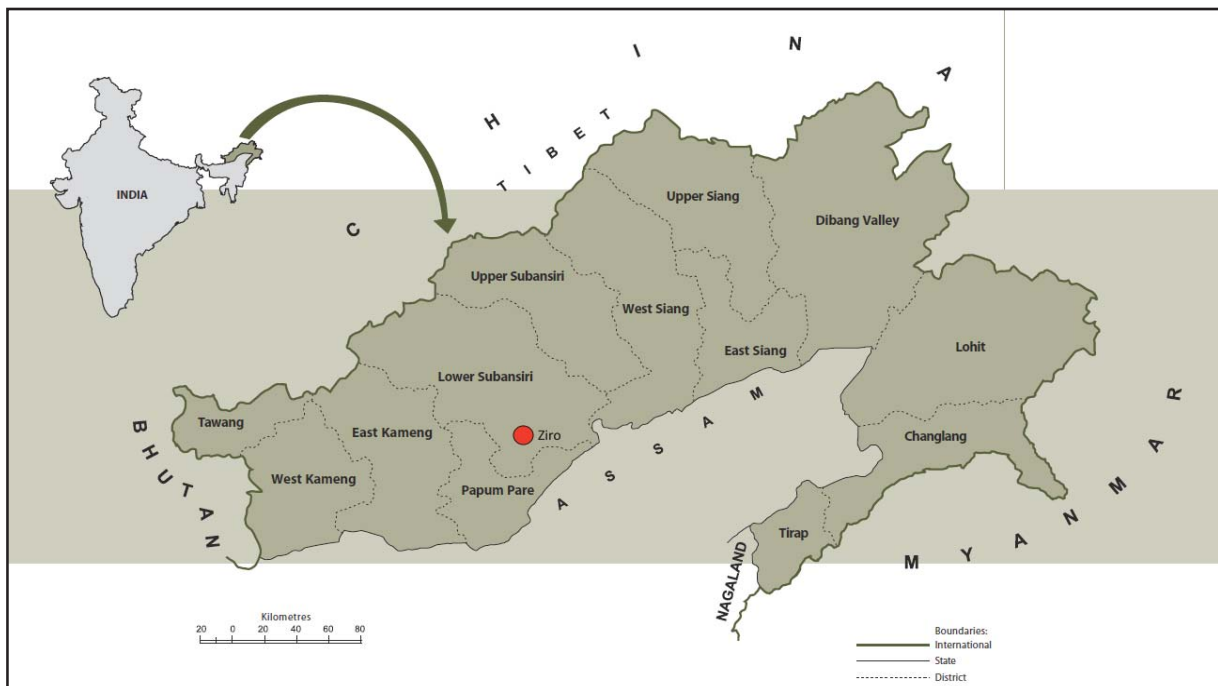


Figure 2. Map of Arunachal Pradesh with study location of Ziro (source: Zephyretta, 2011)

The relatively flat plateau within the Ziro valley has given rise to a form of agriculture that sets the Apatani apart from the rest of the tribes in the state. While *jhum*<sup>1</sup> cultivation is the dominant agricultural practice amongst the tribal peoples of Arunachal Pradesh (Mitra, 1998), the Apatani practice wet-rice<sup>2</sup> cultivation in combination with pisciculture<sup>3</sup>, and have been noted for their traditional ecological knowledge and sustainable practices (Dollo, Samal, Sundriyal & Kumar, 2009). The unique and sustainable livelihood practices of the Apatani have placed their valley on the tentative list for world heritage status (UNESCO, 2014). Figure 3 depicts the typical Apatani landscape; intensive rice plots on the plateau and abundant forests towards the hills.



**Figure 3. Wet-rice plots in the Apatani valley surrounded by forests and hills**

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<sup>1</sup> *Jhum* is an agricultural practice of shifting cultivation in which an area of forest is cleared and cultivated typically for 2-3 years before being abandoned for 10-20 years to allow for natural restoration of the vegetation and soil fertility (Harris-White, Mishra & Upadhyay, 2009).

<sup>2</sup> Wet-rice cultivation involves growing rice in flooded fields. In Ziro, the rice fields are irrigated by small mountain streams, which are channelled into well-drained terraces (Sundriyal & Dollo, 2013).

<sup>3</sup> Pisciculture is the farming of fish and can be integrated with wet-rice cultivation. Pisciculture was introduced in Ziro in the mid-1960's and significantly increased the productivity of the rice fields (Sundriyal & Dollo, 2013).

Historically, the Apatani valley consisted of seven traditional villages, which have since been extended, along with the development of a bazaar called Ziro (now Old Ziro) and a district headquarters called Hapoli (or New Ziro), which serves as the administrative and commercial centre of the valley (Blackburn, 2008). Although many Apatanis now live in Hapoli, every member has a family home in a village, which is still the exclusive site for all customary rituals and ceremonies (Blackburn, 2010). The anthropologist Stuart Blackburn likens the divide between the village and town to the traditional-modern dichotomy, although not absolute (2008, p.43). Figure 4 below depicts a typical home in an Apatani village today, exhibiting both traditional and modern elements.



**Figure 4. Typical Apatani village home, blending the traditional with the modern**

Relative to the other tribes in the state, the Apatani have been described as peaceful, hardworking, practical and proud people (Fürer-Haimendorf, 1962; Blackburn, 2003; Kani, 2012). The word Apatani is derived from *Apa* – a means of affectionately addressing someone – and *Tani* – the name given to the descendants of their great forefather *Abotani* (Bamin & Gajurel, 2015). The story of *Abotani* is one of the best-known narratives amongst the Apatani and forms part of their creation story, which explains their world through a common source or shared ancestry (Blackburn, 2012). With *Abotani* as their common ancestor, Apatani people then differentiate themselves by clan, sub-clan and eventually the family unit, which forms the cornerstone of Apatani society (Kani, 2012). This

relational ontology and epistemology constructs traditional Apatani identity as interconnected and collective. Up until the 1970's, the Apatani used to tattoo their faces and women also wore wooden nose and ear plugs (see Figure 5 below), but the practice has since been banned (Blackburn, 2003). Their unique location, practices and culture make the Apatani aware and proud of their identity (Blackburn, 2003), and this was noted during the fieldwork.



**Figure 5. An elderly Apatani woman with facial tattoos and nose plugs**

The Apatani valley had remained relatively secluded from any colonial influences until 1944, when anthropologist Christoph von Fürer-Haimendorf set up the first preliminary government outpost (Fürer-Haimendorf, 1955). Following their independence in 1947, the Indian government replaced the British administration in Ziro and have since been the key agent of economic transformation in the Apatani valley (Harris-White, Mishra & Upadhyay, 2009). Following the Indo-China border conflict in 1962, Arunachal Pradesh experienced a rapid expansion of administrative, military and road development (Planning Commission, 2009; Chaudhuri, 2013). During that time, Arunachal Pradesh was still known by its colonial division as the North-East Frontier Agency (NEFA) and did not become a state until 1987 (Planning Commission, 2009). These political-economic developments since 1944 have played a major role in the transformation of Apatani society.

## 4.2 Local Values

Before going on to analyse the tools in Apatani society, I will first present some findings from the field related to local values. Through Illich's lens, understanding local values can shed light on the shape of the tools within that society. The field interviews revealed subjective perceptions of the good life and underlying values of the Apatani people, which complement the analysis of their societal tools and provide interesting points for discussion.

There is a strong link between tools and values, highlighted throughout *Tools for Conviviality* (Illich, 1973). Values can be defined as "the ideals that give significance to our lives, that are reflected through the priorities that we choose, and that we act on consistently and repeatedly" (Hall, 2006, p.21). Illich believed that our values are largely shaped by the tools in society, and that our values are currently aligned to serve industrial ends (1973). He termed this manipulation "the institutionalisation of values", whereby institutions come to define the purpose (1973, pp.19-20). For example, Illich explains how the institutionalisation of education has redefined the value of "learning" into "schooling", which then makes schooling necessary and creates an "educated" population that then go on to accept a whole range of institutionally defined values, as illustrated in the quote below:

"People who have climbed up the ladder of schooling know where they dropped out and how uneducated they are. Once they accept the authority of an agency to define and measure their level of knowledge, they easily go on to accept the authority of other agencies to define for them their level of appropriate health or mobility." (Illich, 1973, p.19)

By asking local people about their perceptions of the good life, I was able to gain insights into their personal values. Some values remained traditional, while the data and theory suggested that some new values had emerged since 1944. These values are summarised in Table 4 below and are presented according to various generational groups. I distinguished the generational groups based on age. Although the young adults could have been classified as adults, I chose to keep them in their own group, as they did not have children, while the rest of the adults did.

**Table 4. Summary of emergent values within different generational groups**

<b>Generational group</b>	<b>Source of data</b>	<b>Age range</b>	<b>Group size</b>	<b>Values (&amp; no. sharing that value)</b>
Young adults (not parents)	Interviews	26 - 27	2	Locality (2) Knowledge (2) Career (2) Family (1) Education (1)
Adults (parents)	Interviews	30 - 49	6	Locality (6) Family (5) Education (5) Community (4) Health (3) Christianity (2)
Elders (grandparents)	Interviews	~80 <sup>4</sup>	2	Family (2) Health (2) Christianity (2) Modernity (2) Locality (1)
<b>Collective</b>	<b>Interviews</b>	<b>26 - 80</b>	<b>10</b>	<b>Locality (9)</b> <b>Family (8)</b> <b>Education (6)</b> <b>Health (5)</b> <b>Christianity (4)</b>

The interviews provided me with a variety of values, some which were common amongst all and others that diverged. Overall, two values emerged as the most commonly shared amongst all the interviewees; locality and family. Nine out of the ten interviewees generally reflected a great sense of pride for their valley, with many commenting on the unique landscape and way of life relative to the rest of Arunachal Pradesh. Many of the informants also expressed their keen desire to spend their retirement in the Apatani valley, as many of them had spent some time living elsewhere and agreed that life in Ziro was better. Eight of the ten interviewees also expressed family as an essential part of the good life, with one participant stating, “Having a family. A healthy family. Being with your family. That is the good life.”

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<sup>4</sup> Many of the older generations (including adults) did not know their age or which year they were born in. Prior to the establishment of the government administration there was no linear tracking of time in the modern sense. Instead, time was perceived as cyclical, according to the seasons for agriculture.

Beside the commonly held values were also divergent ones, some of which were particularly distinct between generational groups. Through Illich's lens, differing values between generational groups may suggest that societal tools have been changing. In the case of the Apatani, I argue that new industrial tools have been redefining individual values. Although the sample size is small, the fieldwork data still offers a preliminary overview of potential value shifts occurring in Apatani society, as seen in Table 4. These values only represent those expressed during the interviews and therefore present some major limitations. However, as the participants had the freedom to express the values of their choosing, these values still provide useful preliminary insights for this research.

The most interesting differences between the generational groups were the values of education/knowledge, career and health/religion. Education and knowledge were valued by adults and young adults, but not the elders. Only the young adults mentioned career as being part of the good life. Health was only mentioned by the older interviewees, which is not a major surprise. However, what was surprising was that both elderly women had converted from *Donyi-Polo*<sup>5</sup>, to Christianity in pursuit of better health. These divergences will be used to complement the analysis of tools in the following section and their implications will be discussed later in the paper.

### 4.3 Transitioning society

This section gives a general overview of past and present society in the Apatani valley and analyses the conviviality of the developments that have taken place. Analysis is based on the comparison of traditional and current Apatani society as outlined in the methods section of this paper. As mentioned earlier, "traditional society" is defined by the characteristics of Apatani society prior to the establishment of government administration in 1944 (Fürer-Haimendorf, 1955). This overview is structured based on the five tool types presented in section 2.4 of my conceptual framework: (1) learning tools, (2) health tools, (3) governance tools, (4) economic tools, and (5) mobility tools. Under each of these sub-sections, I describe the structure of the tools in both traditional and current society, and then determine whether they are *more* convivial or *more* industrial. Each tool is analysed according to the four societal realms: (1) social, (2) political, (3) economic, and (4) environmental.

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<sup>5</sup> *Donyi-Polo* is an animistic religion with no organised form (Kani, 2012). The religion guides the traditional Apatani belief that everything around them, including the sun, moon, stars, trees and rocks, are all divine manifestations (Kani, 2012). Ill-health was often attributed to malevolent spirits (Blackburn, 2008).

### 4.3.1 Learning tools

#### *Traditional society*

Education was never a defined or formal institution within traditional Apatani society, but rather an organic exchange of knowledge passed on from parents, elders and the *nyibu*<sup>6</sup> (Kani, 2012). Knowledge, memory and storytelling were primarily oral in the traditional society (Blackburn, 2008). Children always accompanied their parents and elders during everyday activities in the fields and forests, where they learnt practical knowledge and skills (Kani, 2012). Oral stories that transmit knowledge are known as *miji-migung* (Blackburn, 2008), and cover everything from the history of the universe and humans, to societal morals, norms and laws (Kani, 2012). Through these stories, children were taught the art of living within their community and surrounding environments (Kani, 2012). *Miji-migung* is often told during ritual chants by the *nyibu* during customary ceremonies and festivals (Blackburn, 2012). Although mostly limited to the *nyibu*, some other men and women were also able to orate this traditional knowledge depending on their storytelling abilities (Blackburn, 2008). However, the telling of female-centred stories by women was not favoured in traditional Apatani society, where the power to narrate traditional knowledge remained firmly embedded within the patriarchal structure of their society (Blackburn, 2008).

#### *Current society*

Since the establishment of the first school in 1948, the Apatani valley has experienced a steady growth in formal education institutions (Blackburn, 2008). During the same year that it was built, the first school in the valley was burnt down as an act of protest against the presence of external authority (Kani, 2012; Blackburn, 2008). The government eventually overcame this opposition, partially due to the introduction of *gaunboras*<sup>7</sup>, who sat on traditional village councils and generated support for the development of government schools, which soon appeared in each of the seven original Apatani villages during the 1950's (Blackburn, 2008). By 2008, a total of fourteen government schools had been established within the valley, together with twenty-one other formal education

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<sup>6</sup> *Nyibu* are traditional male priests that act as intermediaries between spirits and humans (Kani, 2012), and are generally held in high regard within Apatani society (Blackburn, 2008). Their role is clan-based, performing rituals and healing primarily for members of their clan (Blackburn, 2008).

<sup>7</sup> *Gaunboras* are government appointed village headmen (Blackburn, 2008).



institutions including Christian and Hindu schools (Blackburn, 2008). Today, many Apatani youth leave Ziro to pursue tertiary studies in the state capital of Itanagar, or in other major Indian cities (Blackburn, 2012).

The change in education structures within Apatani society correlates with my impressions and data from the field. Although the interview sample size was small, it was apparent that education was highly valued amongst the adults and young adults, with almost all of them regarding education and knowledge as essential for a good life. Many of the adults were part of the first Apatani generation to go to school. On the other hand, neither of the two elders that I interviewed mentioned education in their descriptions of the good life. This suggests that education may have only recently emerged as an Apatani value since the establishment and expansion of schools, although further research would be needed to confirm this.

### ***Convivial gains and losses***

“The transformation of learning into education paralyses man’s poetic ability, his power to endow the world with his personal meaning. Man will wither away just as much if he is deprived of nature, of his own work, or of his deep need to learn what he wants and not what others have planned that he should learn.” (Illich, 1973, p.60)

Through Illich’s lens, the learning tools in Apatani society have experienced an overall loss of conviviality. Traditional forms of learning have largely been replaced by formal systems of schooling in the Apatani valley. My following analysis can be read in relation to Table 5 below, according to the four societal realms: (1) social, (2) political, (3) economic, and (4) environmental.

(1) Socially, the emergence of schools constitutes a loss of conviviality. Autonomous and creative exchange of everyday knowledge has been degraded by the conditioned responses demanded by schools. This “conditioned response” is perfectly illustrated by an example from anthropologist Jules Henry, who studied American classrooms where “most students [were] willing to believe anything and to care not whether what they are told is true or false” in order not to fail (1963, p.297).

(2) Politically, the replacement of the *nyibu* by the school represents no major convivial loss or gain. In the traditional society, the power to transfer knowledge (*miji-migung*) was held almost exclusively by the *nyibu*, while today, the power has shifted to into the hands of the school teacher (Illich, 1973).

(3) Economically, the establishment of schools indicates a convivial loss. Access to learning and knowledge tools was equal amongst all Apatanis in traditional society, whilst today, access to these tools is riddled with inequality. Although government schools are accessible to all Apatani children, higher levels of education are only available to those who can afford it; creating divisions in society according to levels of education. Those who consume more education are granted more privileges, whilst the under-educated come to accept their lower place in society (Illich, 1973). This is perfectly illustrated by a female field worker who stated that, “We did not study well, that is why we are in the fields. The people working for the government have a good job.”

(4) Environmentally, the modern school constitutes a loss of conviviality. Traditional Apatani learning created a society that learnt to live self-sufficiently within its natural limits for a millennium, whilst modern schools now prepare children for life in a man-made world that operates beyond its ecological limits (Illich, 1973).

**Table 5. Summary of convivial gains and losses for Apatani learning tools**

Realm	Traditional society		Current society	
	Convivial tool	Industrial tool	Convivial tool	Industrial tool
Social (1)	Autonomous and creative interaction	Conditioned response	Autonomous and creative interaction	Conditioned response
Political (2)	Governed by political process	Governed by experts/ professional elite	Governed by political process	Governed by experts/ professional elite
Economic (3)	Equal and just access/ distribution	Unequal and unjust access/ distribution	Equal and just access/ distribution	Unequal and unjust access/ distribution
Environmental (4)	Responsible limits to growth	Unlimited growth	Responsible limits to growth	Unlimited growth

### 4.3.2 Health tools

#### *Traditional society*

The traditional health tools of the Apatani were intimately linked to their spirit-world. Deities and spirits were thought to affect the welfare and health of a person (Fürer-Haimendorf, 1962), and when a person fell ill, their soul was said to be inflicted by malevolent spirits (Blackburn, 2008). As intermediaries between the spirit- and human-worlds, the *nyibu* were called upon in times of illness and would receive honours and gifts for their work (Blackburn, 2008). Through ritual chants, *nyibu* leave their body and travel to the land of the spirits, where they negotiate with the malevolent spirits of the ill-possessed (Blackburn, 2008). Negotiations involve offering animal sacrifice (see Figure 6) in exchange for the health of the patient; if the ransom is accepted, the harmful spirit leaves the body and the patient regains their health (Fürer-Haimendorf, 1962). It is interesting to note that there is no formal training to become a *nyibu*, rather, young men can learn the profession through exposure, absorption and guidance (Blackburn, 2010). By conducting successful minor healing rituals when no *nyibu* is available, young men can gain informal public recognition as type of *nyibu* ‘apprentice’, who may then assist *nyibu* with other healing and ceremonial rituals, until they eventually gain formal recognition as a *nyibu* (Blackburn, 2010).



Figure 6. A *nyibu* performing a ritual at the altar of a fellow clan member’s home

As well as their spiritual approach to healing, the Apatani have always had a rich ethnobotanical knowledge. Their traditional knowledge of medicinal plants was always used for healing smaller ailments related to stomach aches, colds, coughs, cuts and wounds (Kala, 2005), while the *nyibu* were sought in cases of more serious illness. A study by Kala (2005) revealed that the Apatani used at least 158 varieties of plant species to heal 52 different ailments, with most people having access to these plants from the surrounding environment. As this ethnobotanical knowledge appears to have remained unchanged for now (Kala, 2005), it has not been included in the analysis as it constitutes no gain or loss in conviviality.

### ***Current society***

Today, the role of the *nyibu* as a healer in Apatani society has sharply declined due to a range of societal changes. As of 2010, there are an estimated 90 *nyibu* left amongst an Apatani population of around 35,000 (Blackburn, 2010), and this number continues to decline as less young men are learning the profession (Blackburn, 2008). The transforming economy has resulted in the average wage of a *nyibu* being around half that of a primary school teacher (Blackburn, 2010), and presumably much lower than that of a medical doctor. On top of this devaluation of traditional healing, modern medicines have generally become cheaper than a healing ritual, which has only further diminished the role of the *nyibu* in Apatani society (Blackburn, 2008).

In 1962, Fürer-Haimendorf noted that the establishment of medical facilities around the valley, including a hospital in Hapoli, would likely see a population increase. The result has been an approximate threefold<sup>8</sup> of the population since that time. The state Planning Commission (2009) points out that public health services grew steadily until the 1990's, when they began being overtaken by health services in an expanding private sector. The extensive number of medical shops in Hapoli was hard to ignore during the fieldwork. However, despite the influences of these new health tools in the valley, Blackburn (2008) noted that most Apatanis still see a *nyibu* before going to a hospital.

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<sup>8</sup> Approximation based on the 1961 population of 10,793 (Kala, 2005) and the 2012 estimated population of 35,000 (Blackburn, 2012).

One other major reason for the shift in health tools in Apatani society has been the influx of new religions. Hinduism gained political support in Arunachal Pradesh after colonial independence, while Christianity has only started expanding in the state during the last two decades (Chauduri, 2013), with nine churches standing in the Apatani valley as of 2008 (Blackburn, 2008). These changes correlate with my impressions from the field. Although many interviewees mentioned health as being part of a good life, this was neither surprising nor revealing. What was more interesting however, was that both the elderly women that I interviewed had been lifelong followers of *Donyi-Polo* and converted to Christianity in recent times for health reasons. In both cases, the women had fallen quite ill and after failed healing attempts with a *nyibu*, they went to the church where they regained their health. One of the women was married to a *nyibu*, who also converted to Christianity after seeing that his wife had been healed by the church.

### ***Convivial gains and losses***

“False expectations of better health corrupt society, but they do so in only one particular sense. They foster a declining concern with healthful environments, healthy life styles, and competence in the personal care of one’s neighbour.” (Illich, 1973, p.85)

Through Illich’s lens, the health tools in Apatani society have experienced an overall loss of conviviality. In *Tools for Conviviality* (1973), Illich did not discuss religious institutions as tools in any great length, and therefore, this analysis will focus on the influence of newly established medical institutions rather than the religious ones. While schooling and new economic incentives have deterred many young men from pursuing traditional *nyibu* professions, new medical centres have come to redefine measures and expectations of “better” health. My following analysis can be read in relation to Table 6 below, according to the four societal realms: (1) social, (2) political, (3) economic, and (4) environmental.

(1) Socially, Apatani health tools have experienced a convivial loss. In the Apatani valley, accessing health has shifted from a social means of autonomous clan and village interactions, to a more conditioned response of visiting a medical centre in order to access “better” health.

(2) Politically, there have been no major convivial gains or losses for Apatani health tools. Although the monopoly over healing in traditional society was primarily held by the *nyibu*, modern

development has not shifted this monopoly into the hands of a wider public, but instead to another professional elite: medical school graduates.

(3) Economically, the establishment of medical centres poses a loss of conviviality. Access to healing was available to all Apatani people in their traditional society through their clan-based system, while today, access to doctors and medical centres benefit those living in the urban centre of Hapoli, rather than the villages. In addition, the shift of modern health tools from the public to private sector has meant that “better” health can be bought by the wealthy, whilst earlier, everyone had access to more or less the same quality of healing, regardless of social or economic status.

(4) Environmentally, the introduction of modern health tools indicates a convivial loss. Although modern health tools may improve the chances of survival at birth and increase life expectancy, the outcomes of these tools also expand populations beyond their ecological limits. This has become apparent in the Apatani valley, where the population has now outgrown the capacity of the valley to produce sufficient food for all (Blackburn, 2010).

**Table 6. Summary of convivial gains and losses for Apatani health tools**

Realm	Traditional society		Current society	
	Convivial tool	Industrial tool	Convivial tool	Industrial tool
Social (1)	Autonomous and creative interaction	Conditioned response	Autonomous and creative interaction	Conditioned response
Political (2)	Governed by political process	Governed by experts/ professional elite	Governed by political process	Governed by experts/ professional elite
Economic (3)	Equal and just access/ distribution	Unequal and unjust access/ distribution	Equal and just access/ distribution	Unequal and unjust access/ distribution
Environmental (4)	Responsible limits to growth	Unlimited growth	Responsible limits to growth	Unlimited growth

### **4.3.3 Governance tools**

#### ***Traditional society***

Apatani life was traditionally spread over seven villages within the valley, all of which were self-governed by their own village council, or *buliang* (Kani 2012; Sohkhlet & Lalyang, 2013). The village council is guided by unwritten codes of customary laws that govern the social, political, religious and judicial matters within the village (Kani 2012; Sohkhlet & Lalyang, 2013). Although each *buliang* primarily serves the needs of their own village, they also provide leadership when dealing with matters between other villages or neighbouring tribes (Sohkhlet & Lalyang, 2013). A village council consists of male representatives (*buliangs*) from every clan within the village (Sohkhlet & Lalyang, 2013). Strong loyalty and trust within clans (Dubey, 1998) ensures that every member of society is represented through their respective clan representative and any decision made by the village council is considered to be public opinion (Sohkhlet & Lalyang, 2013). The number of representatives from each clan is dependent on clan size, and their selection is typically hereditary, but also takes into account characteristics such as integrity and reputation (Sohkhlet & Lalyang, 2013). It is important to note that however representative this traditional *buliang* system may appear, its patriarchal structure has by and large excluded women from the political front (Mishra & Mishra, 2016)

Law and order was governed through various traditional mechanisms such as festivals and customary pacts. The annual Apatani festivals of *Myoko* and *Murung* were (and still are) celebrated amongst all members of Apatani society, regardless of village, clan or family, which fostered peace and solidarity within the valley (Fürer-Haimendorf, 1962). During the *Myoko* festival, individuals are encouraged to establish new friendships within and between villages, which go on to serve as moral and material support during times of social, economic and political crisis (Kani, 2012). Alongside the annual festivals are the more formal *dapo* pacts, which are treaties of friendship between the villages, which have been established since time immemorial (Fürer-Haimendorf, 1962). The *buliang* and village elders put the pacts into effect when feuds between individuals, clans, villages or neighbouring tribes threaten the overall peace of Apatani society (Kani, 2012; Fürer-Haimendorf, 1962).

#### ***Current society***

Since the establishment of the first provisional government outpost in 1944, traditional Apatani governance tools have largely replaced by new tools of the state. Initially, there was much hostility

towards the establishment of a government administration as it threatened the traditional way of life (Kani, 2012). As well as the burning down of the first school in the valley, the Apatani had also raided the early government outpost (Kani, 2012). However, this resistance was met with even greater violence from the government, which eventually led the Apatani to surrender in order to bring peace back to the valley (Blackburn, 2003). In 1945, the Assam Frontier Administration of Justice Regulation was enacted, which formally recognised the authority of the *buliang* on the village level, yet undermined it on a broader level by providing jurisdiction over the Apatani valley (Seema, 2016). During the 1950's *gaunboras* (headmen) were appointed by the new administration to sit on the *buliang* in each village (Blackburn, 2008), which further undermined the power of the *buliang* (Sohkhlet & Lalyang, 2013). By the end of the 1970's, the political authority of the *buliang* had been completely replaced by new state governance tools (Blackburn, 2008). However, the *buliang* continue to play an important role in the governance of cultural events and festivals like *Myoko* (Seema, 2016).

Constitutional acts and reforms during the last fifty years appear to have broadened the scope for democracy in the Apatani valley, although its inclusiveness has been questionable. In 1969, the Panchayati Raj<sup>9</sup> system was established in the state, which saw the introduction of popularly elected representative members such as Members of the Legislative Assembly (MLAs) and Panchayat leaders (Seema, 2016; Sohkhlet & Lalyang, 2013). However, representation of women in local and state politics remained negligible until the enactment of the Arunachal Pradesh Panchayati Raj Act 1997, which guaranteed women 33 percent seat reservations amongst the three Panchayati tiers (Seema, 2016). Although these reservations have increased the visibility of women in grassroots politics, prevailing patriarchal structures on the village level continue to undermine inclusive politics in the state (Mishra & Mishra, 2016). As well as having to navigate traditional patriarchal politics, women representatives have found themselves even further marginalised in the new sphere of electoral politics, afflicted by financial power, patronage networks and pilferage of public assets (Mishra & Mishra, 2016).

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<sup>9</sup> The Panchayati Raj system was a traditional form of decentralised governance in India since time immemorial (Kaushik & Shaktawat, 2010). However, since colonial and post-colonial reform, the system has come under more centralised state power, with the establishment of a three-tier Panchayati Raj system at the village, block and district level (Kaushik & Shaktawat, 2010).



### ***Convivial gains and losses***

“[W]e can no longer live and work effectively without public controls over tools and institutions that curtail or negate any person’s right to the creative use of his or her energy. For this purpose, we need procedures to ensure that controls over the tools of society are established and governed by political process rather than by decisions by experts.” (Illich, 1973, p.12)

Through Illich’s lens, the governance tools in Apatani society have experienced an overall loss of conviviality, although the potential for a more representative polity stands as a convivial gain. Traditional forms of governance have largely been replaced by state-led authority, although traditional patriarchal structures continue to influence the new political sphere. My following analysis can be read in relation to Table 7 below, according to the four societal realms: (1) social, (2) political, (3) economic, and (4) environmental.

(1) Socially, the shift of power from the *buliang* to the state indicates a loss of conviviality. The *buliang* operated as a community of autonomous yet interrelated councils, while the state represents a body of conditioned bureaucracy.

(2) Politically, the new governance tools have effected no major gain or loss of conviviality. Traditional governance tools were controlled by an elite (*buliangs*), and this control has simply shifted into the hands of another elite: state bureaucrats.

(3) Economically, the establishment of a potentially more inclusive political structure denotes a convivial gain. Access to the governance tools in traditional society was limited to the men in Apatani society, while today the political infrastructure of the state has created the potential for more equal access to the governance tools. However, traditional patriarchal structures continue to undermine women in politics (Mishra & Mishra, 2016).

(4) Environmentally, the establishment of the new state governance represents a loss of conviviality. For as long as the *buliang* had control over the governance tools, the Apatani valley had remained a highly self-sufficient society, living within the limits of their physical surroundings. Today, state governance has assumed control over the development activities within the valley (Seema, 2016). These developments are placing increased pressure on the surrounding environment, particularly resource depletion and environmental pollution (field observations).

**Table 7. Summary of convivial gains and losses for Apatani governance tools**

Realm	Traditional society		Current society	
	Convivial tool	Industrial tool	Convivial tool	Industrial tool
Social (1)	Autonomous and creative interaction	Conditioned response	Autonomous and creative interaction	Conditioned response
Political (2)	Governed by political process	Governed by experts/ professional elite	Governed by political process	Governed by experts/ professional elite
Economic (3)	Equal and just access/ distribution	Unequal and unjust access/distribution	Equal and just access/ distribution	Unequal and unjust access/distribution
Environmental (4)	Responsible limits to growth	Unlimited growth	Responsible limits to growth	Unlimited growth

#### **4.3.4 Economic tools**

##### ***Traditional society***

The traditional economy of the Apatani revolved around wet-rice cultivation in combination with animal husbandry (Kumar & Ramakrishnan, 1990). Typically, their production of rice always was always in excess of food requirements and its surplus was used for trading (Fürer-Haimendorf-1962). Although highly self-sufficient in their production of grains and vegetables, the Apatani relied on the exchange of goods with neighbouring tribes to meet the rest of their needs, particularly the trading for salt (Blackburn, 2010). Traditional animal husbandry is composed of pisciculture, mithun<sup>10</sup>, cattle, swine and poultry (Kumar & Ramakrishnan, 1990). Crop residues and organic waste from the villages were always recycled back into the fields to restore and maintain soil nutrients, making their practices highly energy efficient (Kumar & Ramakrishnan, 1990). Additional economic activities in the Apatani valley included forestry, fishing, hunting, handicrafts and handlooms (Kani, 2012). Forest resources included individually-owned bamboo and pine groves on the periphery of the fields, while clan- and village-owned forests existed on the higher slopes (Blackburn, 2008). Wood from the groves and forests were used primarily for fuel and construction (Kumar & Ramakrishnan, 1990).

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<sup>10</sup> Mithun or *bos frontalis* are a bovine species found predominantly in Arunachal Pradesh and are known as the ‘cattle of the hilly region’. In tribal societies they are eaten, gifted, traded or sacrificed during traditional rituals, ceremonies and festivals, and their ownership is a sign of prosperity and status (Shisode, 2009).

With wet-rice cultivation at the core of their economy, work in the Apatani valley was labour-intensive. A day in the life of an average Apatani was typically spent in their family-owned fields and gardens, together with husband, wife, children and any other members of the household such as relatives or slaves<sup>11</sup> (Fürer-Haimendorf, 1962). Although gendered division of labour existed, men and women often worked together (Fürer-Haimendorf, 1962). At a young age, every Apatani child becomes part of a *patang*<sup>12</sup>, which they spend most of their working days with until they have a household of their own (Fürer-Haimendorf, 1962). The labour of the *patang* is shared across each member's family fields, and so parents gain regular access to the labour of their child's *patang* on a rotational basis (Fürer-Haimendorf, 1962). These labour services were free and reciprocal, except in the cases when a rich man would hire the *patang* in exchange for wages, typically in the form of grain (Fürer-Haimendorf, 1962). Rich men depended on wage-labour workers to cultivate their large plots, and for the poorer Apatani people with little or no land of their own, wage labour was the way of daily life (Fürer-Haimendorf, 1962). Almost all Apatani men own some degree of land through patrilineal inheritance (Blackburn, 2008).

### **Current society**

The traditional economy remained largely unchanged up until the post-colonial period, when the Indian government began establishing its administrative structures (Harris-White, Mishra & Upadhyay, 2009). Since the development of Hapoli in the late 1960's, many new opportunities have emerged in the growing infrastructure, public administration and service sectors (Harris-White, Mishra & Upadhyay, 2009). This rapid transformation has led to an influx of migrant workers in the Apatani valley, with 8,000 foreigners estimated to be living in Hapoli as of 2010 (Blackburn, 2010). On a state level, Harris-White and colleagues (2009) found that the emergence of the new economy has enabled tribal elites to gain economic and political power by capitalising on their access to traditional land and resources, as legitimised through state bureaucracy.

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<sup>11</sup> Slaves were typically neighbouring tribespeople that had been captured during raids or poorer Apatanis that were sold by their relatives (Fürer-Haimendorf, 1962). Slaves were assured food, shelter and clothing in exchange for their service, typically field labour (Fürer-Haimendorf, 1962).

<sup>12</sup> A *patang* was typically a mixed gender labour gang, with all members being of similar age and often from the same clan (Fürer-Haimendorf, 1962). However, during the fieldwork it was noted that these *patangs* have become much more gendered, with all-female *patangs* dominating the valley landscape (see Figure 7).



**Figure 7. A female *patang* cultivating a rice field**

The Planning Commission found that the gender gap in work-participation is much higher in urban areas than in rural areas of the state (2009). This gendered division of work in the changing state economy correlates with impressions from the field, where the majority of urban workers were males, whilst most of the field labourers were female *patangs* (see Figure 7 above). Although wage labour has become more common, *patang* exchange labour still continues in the Apatani valley, and their female dominance has been noted in more recent years (Blackburn, 2010, p.21; Kumar & Ramakrishnan, 1990, p.322). Many men that I spoke with casually explained that their mothers and wives still worked in the fields, with one young male interviewee stating that “they [women] are very addicted to these things [field labour]”. Such impressions suggest that prevailing patriarchal structures may be contributing to a more gendered landscape as the new Apatani economy continues to diversify.

### ***Convivial gains and losses***

“The *conditions for convivial work* are structural arrangements that make possible the just distribution of unprecedented power. A post-industrial society must and can be so constructed that no one person’s ability to express him- or herself in work will require as a condition the enforced labour or the enforced learning or the enforced consumption of another.”  
(Illich, 1973, p.13)

Through Illich’s lens, the economic tools in Apatani society have experienced an overall loss of conviviality. State-led development has dramatically transformed the economic landscape in the Apatani valley. Traditional economic tools have largely been replaced by new capitalist ones, although some continue to function alongside the new tools. My following analysis can be read in relation to Table 8 below, according to the four societal realms: (1) social, (2) political, (3) economic, and (4) environmental.

(1) Socially, the shift from the traditional to the new economy represents no major loss or gain of conviviality. Although the collective nature of the *patang* fostered sociality and community, it was also an obligation to labour, and therefore restricted one’s autonomy and right to self-defined work (Illich, 1973, p.13). New economic tools in the Apatani valley have broadened the scope for self-defined work, although this scope remains within industrially defined limits.

(2) Politically, conviviality has been lost in the shift to a new economy. Traditionally, labour and development activities were governed by cultural norms, whilst today, control over these activities has largely shifted to the state.

(3) Economically, there appears to have been both gains and losses in conviviality. The institution of slavery guaranteed inequality, although on the whole, most Apatanis had access to collective labour, family land and communal forest resources. On the other hand, new economic tools abolished slavery, but have polarised other existing social and economic inequalities. Labour appears to have become more gendered, whilst tribal elites have been able to expand their wealth and accumulation (Harris-White, Mishra & Upadhyay, 2009).

(4) Environmentally, the shift in economic tools indicates a convivial loss. Before 1944, the Apatani economy existed through self-sufficient agricultural practices which ensured “the fertility of the soil was preserved indefinitely for the benefit of future generations” (Fürer-Haimendorf, 1955,

p.63). Today, unsurprisingly, development processes have integrated Apatani society into a broader economy of capitalism and market dependency.

**Table 8. Summary of convivial gains and losses for Apatani economic tools**

Realm	Traditional society		Current society	
	Convivial tool	Industrial tool	Convivial tool	Industrial tool
Social (1)	Autonomous and creative interaction	Conditioned response	Autonomous and creative interaction	Conditioned response
Political (2)	Governed by political process	Governed by experts/ professional elite	Governed by political process	Governed by experts/ professional elite
Economic (3)	Equal and just access/ distribution	Unequal and unjust access/distribution	Equal and just access/ distribution	Unequal and unjust access/distribution
Environmental (4)	Responsible limits to growth	Unlimited growth	Responsible limits to growth	Unlimited growth

#### **4.3.5 Mobility tools**

##### ***Traditional society***

Before the arrival of the modern administration, foot-travel was the sole means of mobility in the Apatani valley. The valley was characterised by a well maintained network of footpaths that connected all of the villages within an hour’s walking distance from one another (Fürer-Haimendorf, 1962). As seen in Figure 8, these footpaths ran along the dams of the rice fields, while streams and rivers were bridged by wood and bamboo structures (Fürer-Haimendorf, 1962). Christoph Fürer-Haimendorf described the villages, “like small mediaeval towns with winding streets” (1962, p.16). During this time, every able-bodied Apatani enjoyed equal mobility. Apatani traders that moved beyond the valley, travelled via foot through densely wooded terrain (Fürer-Haimendorf, 1962).

##### ***Current society***

Since the establishment of external administration, mobility in the Apatani valley has been transformed. After the 1962 border conflict with China, road expansion in Arunachal Pradesh became a development imperative for the state (Chaudhuri, 2013). The Apatani valley was soon connected to the outside world by motor-road that ran down to the plains of Assam, which

dramatically reduced the journey from six days by foot, to a few hours by motor vehicle (Fürer-Haimendorf, 1962). Today, a paved road between Old Ziro and Hapoli serves as the primary transport route in the valley, with mini-vans providing the means for public transport between the two towns. Additionally, a number of secondary paved and unpaved roads have been constructed to expand the motor-vehicle network. Despite the expansion of motor-roads in the valley, the Apatani have continued to maintain their traditional footpath network, which still serve as a primary means of transportation for much of the population. The majority of my fieldwork was carried out whilst walking along these footpaths, as seen in Figure 8 below.



**Figure 8. Dams of the rice fields serve as footpaths throughout the valley**

### *Convivial gains and losses*

“The road degrades the subsistence farmer and artisan, integrates the village into time money economy, and swallows much of the available cash. It is true that modern transportation does incorporate a region into the world market. It also trains the inhabitants for the consumption of foreign goods and the acceptance of foreign values.” (Illich, 1973, p.38)

Through Illich’s lens, the tools of mobility in Apatani society have experienced an overall loss of conviviality. Equal levels of mobility have been replaced by the development of roads for better transport and higher speed. My following analysis can be read in relation to Table 9 below, according to the four societal realms: (1) social, (2) political, (3) economic, and (4) environmental.

(1) Socially, the development of roads constitutes no major gain or loss of conviviality. The traditional footpaths fostered personal autonomy within one’s environment, whilst today, roads have expanded one’s autonomy, but at the cost of a more man-made environment.

(2) Politically, the development and maintenance of roads as determined by the state (rather than the people) is clearly a convivial loss within Apatani society. Harris-White and colleagues (2009) noted that the expansion of road networks by the state had played a critical role in undermining traditional institutions.

(3) Economically, road expansion has come at loss of conviviality. Although the new road networks have enabled people to travel further, they have also created new class distinctions between those who can and cannot access public and private transport. In the words of Illich, “the particular speed at which you travel puts you into your class and company” (1973, p.38).

(4) Environmentally, the construction of roads is an unsurprising convivial loss; not only because they demand the felling of forests and encourage the use of motor-vehicles, but also because they integrate the Apatani valley into a world market unbound by growth.

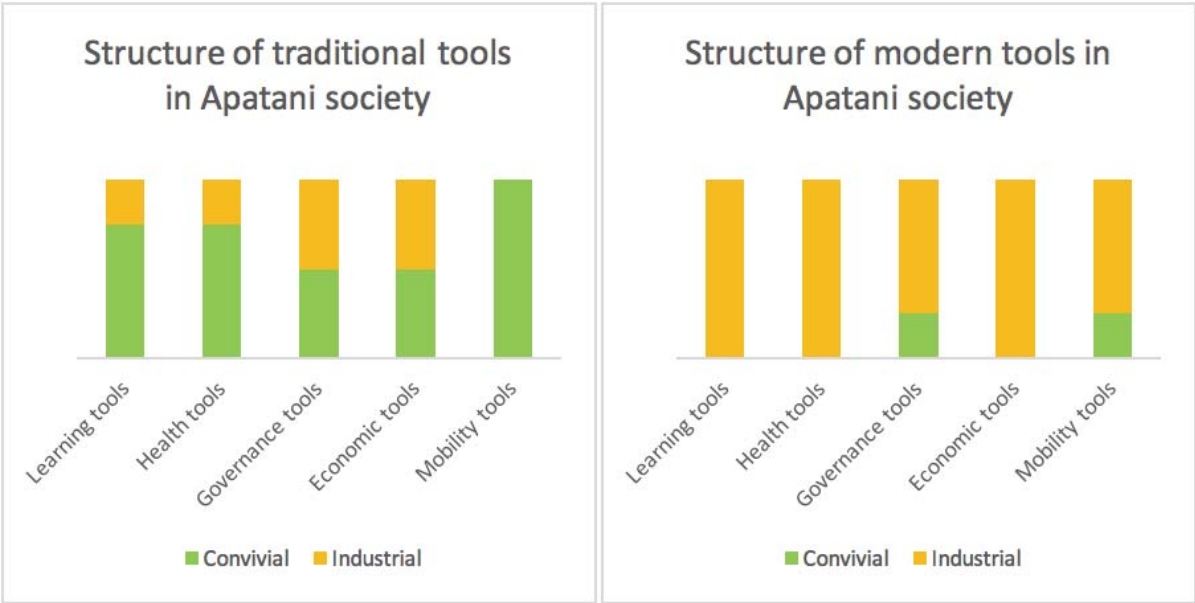
**Table 9. Summary of convivial gains and losses for Apatani mobility tools**

Realm	Traditional society		Current society	
	Convivial tool	Industrial tool	Convivial tool	Industrial tool
Social (1)	Autonomous and creative interaction	Conditioned response	Autonomous and creative interaction	Conditioned response
Political (2)	Governed by political process	Governed by experts/ professional elite	Governed by political process	Governed by experts/ professional elite
Economic (3)	Equal and just access/ distribution	Unequal and unjust access/distribution	Equal and just access/ distribution	Unequal and unjust access/distribution
Environmental (4)	Responsible limits to growth	Unlimited growth	Responsible limits to growth	Unlimited growth



### 4.4 Summary of gains and losses

This section presents a summary of the convivial gains and losses of development in Apatani society according to the findings presented in section 4.3 above. The transformation of the Apatani valley from a secluded and self-contained society to an administrative and commercial hub has been dramatic. It is within the context of this dramatic transformation that the results of my analysis are based. These results revealed convivial losses amongst all of the five tools analysed, as seen in Figure 9 below.



**Figure 9. Summary of the traditional and modern tool structures in Apatani society**

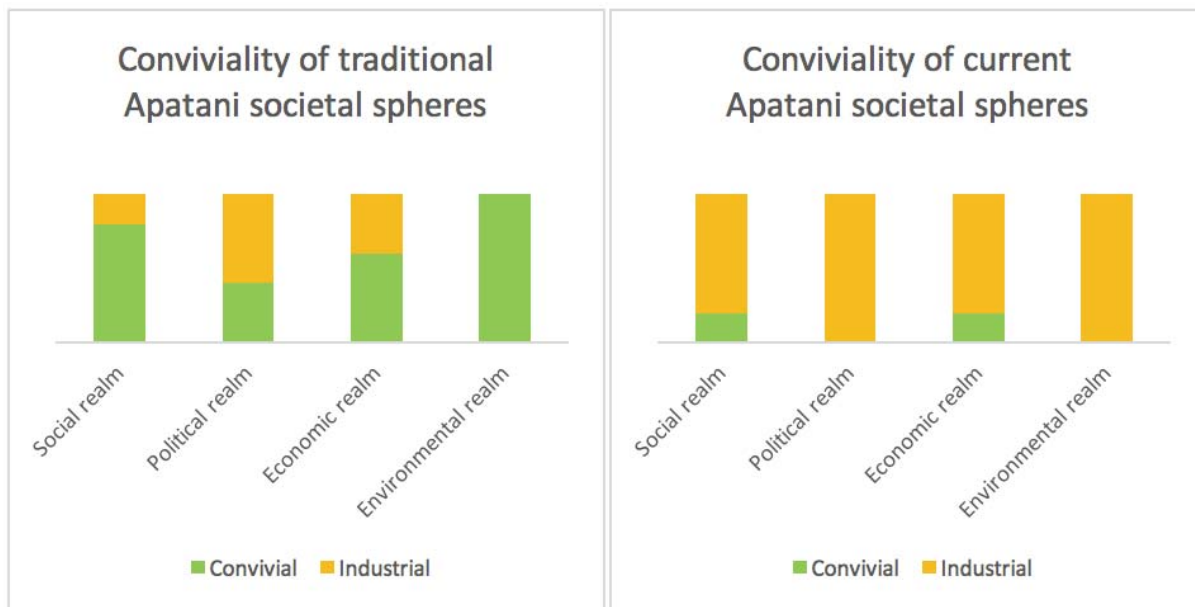
From Figure 9 we can see that the greatest losses of conviviality were experienced by the learning, health and mobility tools, whilst their governance and economic tools experienced less dramatic losses. All of these losses can be attributed to the following broad development shifts identified in the analysis:

1. Learning tools: Organic learning → formal schooling
2. Health tools: Ritual healing → medical services
3. Governance tools: Village council → state government
4. Economic tools: Agrarian → capitalist
5. Mobility tools: Footpaths → motor-roads

In each of these cases, the structures of tools became more industrial/manipulative. Industrial tools reorient personal values toward the “better” life rather than the *good* life (Illich, 1973). This became very apparent throughout the interviews: “we have better [education] institutions now”, education for “a better job”, and “I will let [my children] focus on their studies so that in the future they can have better lives”. This apparent redefinition of learning as education has made schools seem essential (Illich, 1973). “Once they accept the authority of an agency to define and measure their level of knowledge, they easily go on to accept the authority of other agencies to define for them their level of appropriate health or mobility” (Illich, 1973, p.19).

Institutionally defined measures of “better” health prompt people to seek modern medical expertise and strips the common person of the ability to care for and heal themselves and others. Although the *nyibu* was the “expert” healer in traditional society, everybody still had access to ethnobotanical knowledge and plants, which now stands to lose legitimacy next to the “better” modern medicines. Similarly, motor-roads redefine measures of speed and mobility, which degrades the relative mobility of those who cannot afford its services and further marginalises them within society (Illich, 1973). The replacement of the village council with state bureaucracy disconnects people from the political process, whilst further centralising the power of decision-making tools. Equipped with new governance tools, the state has gone on to dramatically transform the economic tools in Apatani society with industrial productivity. New capitalist tools, that benefit the rich and the highly educated, are replacing traditional agrarian tools that served to benefit a majority.

As well as restructuring the tools, development processes since 1944 have had dramatic effects on every sphere of Apatani society. Based on the outcomes of the analysis, conviviality was lost across all four societal realms. The convivial gains and losses across the societal spheres can be compared in Figure 10 below.



**Figure 10. Summary of past and present conviviality in the four realms of Apatani society**

The traditional social and environmental realms of the Apatani experienced the greatest losses of conviviality, whilst their political and economic spheres experienced slighter losses. The introduction of more industrial tools leads to more conditioned responses of people as demanded by others and a man-made environment (Ilich, 1973). As such, personal autonomy and creative exchange in the social sphere has been debased. The same goes for the environmental realm, which has been degraded by industrial tools that seek to dominate and exploit the natural environment. The shift of governance from seven independent and self-governed village councils to one centralised decision-making body has further reduced conviviality in the political sphere. Similarly, the new industrial tools have further restricted the just access to resources within the economic realm.

## 5 Implications for sustainability

If sustainability is a social choice of what to develop, what to sustain, and for how long (Parris & Kates, 2003), then through the eyes of Illich, we find ourselves in a problematic situation. If our present societal tools shape our values to align with industrial interests, then sustainability becomes a social choice to develop and sustain industrial tools indefinitely. In other words; dominant forces of economic and technological growth in our society have shaped our expectations of sustainable development. Rather than striving for equal and just means for sustainability, we instead confuse them as economic and technological ends. However, this does not mean that structural corruption cannot be inverted. Illich (1973) posits that such an inversion must begin with society-wide recognition of structural manipulation, followed by the establishment of politically defined limits on all types of industrial growth (p.17). Such an inversion becomes highly relevant and necessary for a transition towards a truly sustainable planet. It is within the recognition of the deep structure of our tools that we come to see the intrinsic connection between conviviality and sustainability.

Acknowledging the intrinsic connection between conviviality and sustainability, reveals that losses of conviviality in the Apatani valley also reflect losses for sustainability. Formal schooling produces students that are conditioned to respond to the demands of others, and of a man-made environment (Illich, 1973). This educational conditioning is similar to what Vandana Shiva (1993) describes as “monocultures of the mind”, which kills diversity in our perception, and subsequently, our world. Shiva goes on to say that “the disappearance of diversity is also a disappearance of alternatives” (1993, p.5), which keeps us locked into our current unsustainable paradigm of unchecked economic and technological growth. Furthermore, the replacement of traditional political processes with a centralised and bureaucratic system has completely undermined autonomy and self-governance in the Apatani valley. Although their traditional governance mechanisms were not all perfect, they governed themselves in such a way that enabled self-sufficiency, or what economists would deem a steady-state economy. Today, their steady-state is being replaced by a growth-oriented capitalist scheme, which lies at the core of our current sustainability crisis.

## 6 Reflections and conclusions

The convivial society of Ivan Illich reveals radical perspectives for a more sustainable world, although these are not without their challenges. The sheer scale and dominance of our current industrial tools is overwhelming. Overcoming these manipulative tools requires not only their society-wide recognition, but also a society-wide rediscovery of personal values; values which are not shaped by the machine, but through convivial interaction with the world. Throughout this paper, I have pointed Illich's lens at a case which was at once unique as it was generic. Its uniqueness laid in a society that had remained secluded and self-contained up until the mid-1940's, while its shared feature with the rest of the world was its broad process development. As such, the underlying critique in this research goes beyond the development project the Apatani valley.

The application of my analytical framework for assessing development presented many challenges. The analysis of societal tools is significantly complex, with many known and unknown factors. The initial process of establishing an accurate overview of society is limited to available data and can never capture the full complexity of society. The process of then reducing the available data down into tables was even more challenging because in reality, convivial and industrial tools are generally not absolute, but *relative*. In many ways, my reduction of *tools* and *conviviality* into a framework stand in direct contrast with how Illich thought. In *Tools for Conviviality*, Illich offered "a methodology by which to recognise means which have turned into ends" (1973, p.14). However, his approach was far from the classic reductionist idea of a scientific "methodology". Instead, Illich's methodology was a bold and illuminating polemic against the industrial tool; exposing deep structural corruptions for all to see. It is therefore impossible to read Illich objectively, as he invites the reader to create their own (convivial) meanings from the ideas he presents. As such, my process of analysis contains an inescapable level of author subjectivity, which is based on my reading of Illich. However, every effort was made to convey Illich's perspective.

Although my analytical framework is unable to grasp the full complexity of tools within society, it does provide valuable insights when looking at the development of tools over time. If sustainability is to serve its intended means, then perhaps applying conviviality as a lens for development can help us recognise when the social and environmental means for sustainability turn into manipulated ends. Through the application of conviviality as a lens for development in the Apatani valley, I was able to uncover structural corruptions of tools. By showing the inherent connection between conviviality and sustainability, this research has highlighted the structural implications of development for sustainability, not only in the Apatani valley, but the world at large. There is an urgent need to

address the systemic corruptions of our current world. We must have the courage to look beyond the surface of our dominant tools. By questioning the underlying structure of our tools, conviviality inspires the radical thought and hope we need for a truly sustainable world.

“If you assume you assume that there is no hope, you guarantee that there will be no hope. If you assume that there is an instinct for freedom, that there are opportunities to change things, then there is a possibility that you can contribute to making a better world.” – Noam Chomsky

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