“Becoming” an environmentalist in Indonesia

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*Highlights

- Examines how new grassroots environmental groups emerge in Indonesia
- Uses the work of Deleuze and Guattari: Becoming, assemblage and the rhizome
- Becoming-environmentalist means separation from the mainstream into new territory
- Uncovers complex new ground; decentred, diverse local urban environmental activism

“Becoming” an environmentalist in Indonesia

In the future, much more than the simple defence of nature will be required (Guattari, 2000, p. 66).

Introduction

This article responds to the question,

How do we change mentalities, how do we reinvent social practices that would give back to humanity - if it ever had it - a sense of responsibility, not only for its own survival, but equally for the future of all life on the planet, for animal and vegetative species (Guattari, 1995, p. 119-120).

It engages interview data from local environmental group leaders in Jogjakarta, Central Java, Indonesia. Data was collected for a multi-faceted project that aims to find out what turns someone into an environmentalist in Indonesia. In the course of collecting survey and interview data on youth environmental attitudes in five very different Indonesian cities for that broader project¹, there came an opportunity in Jogjakarta to interview some leaders/mentors of local environmental groups that were referred to by environmental activist students interviewed at Gadjah Mada University. A renowned centre of education and traditional Javanese culture, the small city of Jogjakarta is certainly not representative of Indonesia as a whole, yet there are some insights that emerge from the material below that could be relevant to pro-environmental developments in other parts of the archipelago.

The quotes from Guattari above invoke “moving beyond”, “changing”, “reinventing”, “giving back” in pro-environmentalist activism. This implies working at the micro-level of people and places; the grassroots of change in local communities and landscapes. Here the data is ethnographic and the scope of this paper is to grasp something about local environmental activism in Jogjakarta; how the status quo of unawareness might be challenged and altered on a small scale. In this endeavour some key interpretive concepts from Deleuze and Guattari (becoming, assemblage, the rhizome) seemed appropriate to explain how these instances of environmental activism emerged from everyday conditions, were primarily constituted in actions and

¹ Description of funded project removed to preserve anonymity at the review stage.

interventions, and evinced currents of contemporary environmentalism at national and/or international level. In this regard we follow the pioneering work of Tania Li. In her work on forest conservation practices in Indonesia Li (2007: 263) argues – with direct reference to Deleuze and Guattari (1987) - for an “analytic that focuses on practices of assemblage - the on-going labour of bringing disparate elements together and forging connections between them”. Below we acknowledge that while individuals may “become” environmentalists (and leaders), it is through collective knowledge and initiative – including online sharing - that environmental action groups come about. Thus the concept of “becoming” can be applied to both the individual and the group, but the concepts of “assemblage” and “the rhizome” apply to the formations and actions of groups. The individual stories in the latter part of the paper are testament to those intersubjective processes.

Our interpretive framework echoes the Deleuzian approach advocated by Coleman and Ringrose (2013); one that avoids determinist assumptions and the temptation to look for and celebrate resistance. It challenges teleological thinking. Thus “the aim is not to rediscover the eternal or the universal, but to find the conditions under which something new is produced” (Deleuze and Parnet, 2002, p. vii). Grassroots environmentalism is recognised as “that which is already in the process of coming about and never stops coming about” (Deleuze, 2004a, p. 242), rather than reaching a fixed position of activism that directly implies revolution or reform on a larger scale. This means looking for moments in interview data that pertain to concerned people going forward, not in a determined way, but into new ground; an exploratory, creative trajectory with like-minded others.

The paper starts with methodology, followed by broad background on Indonesian environmentalism. An explanation then follows of the theoretical framework that drives the analysis. Some studies of grassroots interventions that use Deleuzian concepts are briefly described. The latter half of the paper focuses on the five interviews, showing how each demonstrates the process of becoming-environmentalist, and the assemblages which that process engendered. The rhizomatic formation of environmental activism is also engaged. The discussion synthesizes the main findings. The conclusion considers the value of an interpretive approach based on the work of Deleuze and Guattari and looks at the wider implications.

Methodology

As noted above, in the course of conducting the broader project, some student environmental activists in Jogjakarta named off-campus pro-environmentalist groups or interventions and their leaders (or mentors). The five groups represented here were all named in terms of a particular public figure who either led the group, or served as a mentor. Crosschecking with relevant newspaper articles and websites confirmed them as such so they were interviewed about their apparently inspirational actions and interventions.

While there is no simple answer to the question of how someone becomes an environmentalist (see Kollmuss and Agyeman, 2002), in the US and Norway the following shaping influences were identified: childhood experiences in nature; experiences of environmental destruction; environmental values held by the family; environmental organisations; role models (friends or teachers); and education (Chawla, 1998; 1999). In-depth interviews probing those influences were conducted with the identified leader/mentor. Interviews lasted from 30-60 minutes. While different in their environmental focus and orientation, all were engaged in practical activities as well as awareness-raising in the community. They were eager to talk and share their views and experiences. Responses were primarily in Indonesian and were translated by the authors.

Environmentalism in Indonesia

The world's largest archipelago, Indonesia faces environmental challenges from both poorly regulated development and growing pressure of population, now over 250 million. Indonesia is currently ranked at only 108 of 187 countries according to the 2014 Human Development Index, with high levels of poverty, unemployment and corruption (World Bank, 2014). In 2015, the urban population should reach 53.3 per cent (BPS, 2014). Rapid urban expansion means higher rates of "domestic consumerism, energy usage and CO₂ emissions" (Savage, 2012, p. 244). Yet it seems "environmental values are not deeply embedded in [Indonesian] society" (World Bank, 2011). Bohensky, Smajgl and Brewer (2012) did find awareness of global warming among 6,310 Indonesian households in 2007/2008. 81.9 per cent of respondents had observed climate change and 70.7 per cent perceived it as a risk. However, of those, less than 31.8 per cent were taking any action (Bohensky, Smajgl and Brewer, 2012, p. 349). It would appear that environmental knowledge, where it exists, does not often extend to environmentally beneficial practices, either individual

or collective. Environmental groups try many different ways to raise public awareness. Attention to the history of environmentalism in Indonesia gives some background to the recent development of grass roots "assemblages" of environmental activism in Jogjakarta. Those early endeavours constitute the background to the contemporary "becoming" of environmentalism.

As Grove (1995) points out, environmentalism is not something that only began in the twentieth century. Dutch colonial powers controlled the Indonesian archipelago for 300 years without directly exploiting large parts of it until the early twentieth century. They put regulations in place to conserve the environment, such as protected areas for water catchment which included mountainous forest lands. Cribb (1988) documents further forest conservation measures implemented by the Indonesian state following independence, describing the declaration of the first national parks under pioneering environmental minister Emil Salim, and the close relationship of some government ministries with national environmental NGO WALHI, which still exists today. Similarly, Gordon (1998) unpacks the important political role that environmental NGOs played during the repressive New Order regime 1966-1998. Peluso, Affif and Rachman (2008, p. 377) explain that "environmental activists used the appearance of technical 'apolitical' concerns to their advantage. They mobilized at multiple scales, targeting laws and other institutions of state power at the same time as organizing the grassroots".

Tsing (2005) documents some later history of various "environmental connections" in reference to the rainforests of Indonesia, illustrating different ways that people came to have concern for the environment in Indonesia through a creative tension between local, national and global influences. For example, groups of students in the 1980s and 1990s joined local university "nature lover" groups, and many went on to become activists at a national level against the New Order regime. The "movement" at that time was diverse; "organized around differences within the framework of nationalist advocacy. Rather than build a single centralized policy board, the movement was committed to negotiating among small groups organised by place, issue or campaign" (Tsing, 2005, p. 17). To some extent this paper documents the continued salience of that late twentieth century trend. Following the end of the New Order in 1998 and the beginning of full democracy, environmental groups have proliferated in the new freedom to organise and speak out.

For example, Crosby (2013, p. 257) found that the youthful environment movement

in Central Java in the last decade incorporated not only the national network of student nature lovers' clubs, but "local genealogies of resistance to colonialism, the politics and styles of global punk, and the popular images of 'green' circulated by advertising and transnational environmental bodies". In her view this diversity contributed to the capacity of local environmental activists to construct and perform multi-scaled identities in different conditions. Most recently it is claimed that the active and vocal environmental NGO community in Indonesia "is finally gaining traction in their long struggle for greater environmental justice and forest peoples' access rights and sustainable livelihoods" (Thorburn and Kull, 2014, p. 2). However, as these authors add, "sadly, little of this has found its way into international scholarly literature". This paper goes some way towards redressing that shortfall.

We propose that it is still a relatively big step for people to take marked pro-environmental action, including forming or joining an ENGO (Environmental Non-Government Organisation). It can be argued that Indonesians who take up pragmatic environmental actions and practices re-align themselves; they "become" an environmentalist in the following sense,

Grass roots environmental activists are *made*, they are *brought into being*, by external forces and agencies which impinge on their normal life worlds unexpectedly and hegemonically; and because of their invariably involved interests (...) not only do they rise individually and collectively to the occasion, they are as much concerned about the future faced by the next generation as their own fate in the present (Peace, Connor and Trigger, 2012, p. 219, emphasis in original).

That kind of shift can be productively considered not just as the outcome of someone changing their mind, but as evidence of a different kind of processual subjectivity; a "becoming" (Deleuze and Guattari, 1987, p. 307) of a minoritarian kind.

Becoming, assemblage and the metaphor of the rhizome

The work of Gilles Deleuze and Felix Guattari, both separately and together, informs the theoretical interpretation in this paper. Reading Deleuze and Guattari "is a challenge" (Massumi, 1992, p. 8). Given the scope of their theoretical corpus and the challenge of applying their complex ideas to empirical data, only three core concepts

– *becoming*, *assemblage* and *rhizome* - are used analytically in this paper because they fitted very well with interviewee accounts.

Becoming

The concept of “becoming” rests on a radical reshaping of how the self and the social are viewed. In regard to the self, the concept of becoming postulates subjectivity in process. “Self is only a threshold, a door, a becoming”, characterized not by fixity but by differences and potentialities (Deleuze and Guattari, 1987, p. 275). Deleuze (1994, p. 91) further explains “becoming” as a body enriching its affective capacities by increased engagement and sociability; a kind of non-linear “progression”. Yet a broad political meaning is also implied, since becoming always tends towards the periphery, the marginal, the minority (Deleuze and Guattari, 1987). The notion here is “becoming-minoritarian”, an ethical action (and constitution of self) prompted affectively by confinement to restricted social space (Deleuze and Guattari 1987, p. 106).

In the formation of activist groups, each type of affective becoming for members marks a phase of change; they are forming a minority within the majority social formation. Yet minority formation does not have a fixed endpoint of sequential change, since a line of becoming “has neither beginning nor end, departure nor arrival, origin nor destination” (p. 293). The potentials of collective becoming are multiple and lead off in different directions – “lines of flight” (p. 165). Thus one environmental group may eventually spawn many offshoots or variants. For example, the Garbage Bank organisation (*Bank Sampah*) described in this paper has now been replicated informally in many regions of Indonesia, but the services exchanged for garbage deposit credits can differ according to local priorities.

As indicated above, becoming is constituted by “desire” (Deleuze and Guattari, 1987, p. 273); creative passion that to an extent casts the human subject adrift from mainstream norms. Yet desire does not arise from lack, but from connectivity, the eminently social co-presence of others. Becoming is not to transform the self but to enter the collective “in between”; exploring the microsociological “molecules” of potential rupture. The immanent becoming-minor subject is a kind of desiring-machine. “Desiring machines (...) when they are inserted into the social field are capable of derailing something, displacing the social fabric” (Deleuze, 2004b, p. 233). In terms of the social then, for Deleuze and Guattari “multiplicity, creation and desire are the principal elements” (Goodchild, 1996, p. 4). Within the social, desire is a

“plane of immanent relations”, where immanence is constituted in complex networks of “forces, particles, connections, relations, affects and becomings” (Deleuze and Guattari, 1987, p. 266). Thus desire as a plane of immanent relations implies the co-presence of others, with the potential for self and others to be affected, and to take different kinds of action.

In fact, any creative desire on the part of an individual or a group to take leave of social norms and venture into new territory – becoming - “is shaped by the actual relations, conventions and meanings that exist in society” (Goodchild 1996, p. 5). Any existing social formation constitutes raw materials from which something previously unimagined might eventuate. Accordingly, the axis of deterritorialization for minority formation lies in “a-signifying points of rupture (...) the break-bifurcation” (Guattari, 2000, p. 56). Deterritorialization “deconstructs a particular assemblage and thus opens up new possibilities for existence” (Aitken and An, 2012, p. 7). From rupture, new minoritarian subjectivities are constituted and a new assemblage – such as a new environmental group or intervention - can emerge to establish innovative grounds for social action.

Assemblage

Assemblage is not a random assembly of disparate elements (DeLanda, 2006). Deleuze and Guattari (1980) originally used the French term *agencement* not *assemblage* in their work. The French word *agencement* connotes the arrangement or making of something, “one might use the term for both the act of fixing and the arrangement itself” (Phillips, 2006, p. 108). Thus the English translation word *assemblage* refers to a temporary compositional unity, one which “does not exist without the passions the assemblage brings into play, without the desires that constitute it as much as it constitutes them” (Deleuze and Guattari, 1987, p. 441). Assemblages are multifaceted arrangements of materials, bodies, expressions, actions joining together; “fixing or fitting” - sometimes fleetingly - to enact new ways of operating (Phillips, 2006, p. 108). Assemblage has been elsewhere defined as: “the product of multiple determinations that are not reducible to a single logic. The temporality of an assemblage is emergent. It does not always involve new forms, but forms that are shifting, in formation, or at stake” (Ong and Collier, 2005, p. 12).

An assemblage always shows two tendencies. The first is territorialisation, referring to maintenance of consistency and identity over time because of the ground and circumstances within which it is configured. “Territorializing marks ... develop into

motifs and counterpoints, and reorganize functions and regroup forces” (Deleuze and Guattari 1987, p. 356-355). The other is deterritorialisation; erosion and fragmentation of consistency and identity. Any assemblage constitutes “lines” of territorialisation and deterritorialisation (Deleuze and Guattari, 1987, p. 556). A cutting edge is a vector of deterritorialisation from which a new social formation may emerge. Thus a fledgling offshoot environmentalist organisation or initiative is a new assemblage formed by deterritorialisation. It will share some discursive ground with the partially fragmented assemblage of its “parent” organisation, but constitutes a new cutting edge; a line of flight in a different direction. In short, the concept of assemblage permits us to speak of a decentred emergence (of environmental activism), which is nonetheless ordered by the proximity of others, the plane of immanent relations in everyday social life.

Rhizomatic formations

For understanding the emergence of groups that make up a social movement like environmentalism, the metaphor of the rhizome is useful: a subterranean root-like stem that spreads nomadically, and appears above the surface as a series of manifestations. “[The rhizome] is always in the middle, between things, interbeing, intermezzo” (Deleuze and Guattari, 1987, p. 25), potentially connecting any point to any other point, with neither beginning nor end. Unlike a structure, the rhizomatic network is made only of lines; pertaining to a map that is “open and connectable in all its dimensions; it is detachable, reversible, adapted to any kind of mounting, reworked by an individual, group or social formation” (Deleuze and Guattari, 1987, p. 12).

The rhizomatic formation of a broad social movement has no central point of controlling organisation. It has its own entrances and exits and its own lines of flight. So there is great diversity among the organisations and groups that go to make up an environmental movement in a nation or region. Moreover, much of the affective and immanent dimensions of a social movement such as environmentalism may lie below ground, so as to speak, and only emerge into public prominence at points of crisis, for example in mass rallies or concentrated activities of conservation. The relational lines between such moments of active prominence can be traced, but they do not amount to a structure of organisation.

Grassroots environmental activism

We focus here on moments of rupture that lead to the creation of new nodes of activism in the rhizomatic lines that constitute environmentalism. In each of the accounts by Jogjakarta environmental leaders, cultural discourses, emotional ties and beliefs they have about their place in the world provide the substrata and justifications for their innovative actions in formulating collective action.

It can be argued that environmental activism is constituted both in the production of discourse and in modifying material elements of the natural world. For example, Inglehart (1995) proposed that a significant influence on people's environmental attitudes was the presence of objective problems in the local environment. Similarly, in arguing for the concept of becoming, Deleuze and Guattari (1994) emphasise the material over the sphere of ideas. Materiality is the heart and soul of environmental activism. "It is the movement of matter itself that makes both a materialist as well as an idealist stance possible" (Papadopoulos, 2010, p. 75). Thus if we speak of the physical matter of the natural environment, its "movement" in the first instance is towards decline, towards disappearance, while its movement in the second instance is an impelled move away from decline, towards rehabilitation and re-animation. The latter shift is what environmental activists drive in material terms when they take action to protect, preserve or replace the natural environment. It is not surprising then that for the leaders we interviewed, the initial impetus was always a shocking or disturbing material experience of the degraded natural world rather than a set of ideas *per se*. Ideas were developed and elaborated after the event; from resources on offer locally and globally.

Following Deleuze and Guattari (1987), their *becoming-minoritarian* process as environmental leaders was highly varied. Their diverse journeys to an environmental stance amply demonstrate indeterminacy. They point to the nature of grassroots environmentalism as a "minor science", which Deleuze and Guattari (1987, p. 367) contrast with the normalising "royal science" of the State and mainstream institutions. A "minor science" is one that "confronts problems instead of applying theorems, pushes matter to the next threshold, connects practical effects and affects of practice" (Papadopoulos, 2010, p. 77). The becoming-environmentalist comes to see him or herself as an embodied inhabitant of and with the natural world. Here the relationship between subjectivity and exterior (social and environmental) potencies are re-embedded and re-inscribed in the assemblage; the resulting collective entity. The most appropriate metaphor here might be one of low-profile people collectively chipping away at the status quo through small-scale initiatives that seek to protect,

conserve and re-embed aspects of the natural world; in a cultural context drawn from the society that surrounds them.

Such a process is amply illustrated by Tsing (2005); and also by Li (2007, p. 264) who used Deleuze and Guattari's concept of assemblage to analyse – in regard to Indonesian forest conservation – “the hard work required to draw heterogeneous elements together, forge connections between them and sustain these connections in the face of tension”. Local forest conservation interventions were assembled by local people from “an existing repertoire, a matter of habit, accretion, and bricolage (...) linked not in linear fashion but rhizomatically” (p. 265). Elsewhere, Singh (2013) analysed villagers in India as *becoming-conservationists* who restored their environment through affective labour. Here mind and body, intellect and feeling were all employed together; not only the natural landscape transformed, but also their individual and collective subjectivities. In China, Aitken and An (2012) used the concept of “becoming” as affective ecology to study complex resource-use relations between local farmers and endangered monkeys. With intimate knowledge of their local environment, indigenous farmers were not persuaded by State-based conservation initiatives. The stand of the local farmers illustrated not only becoming but assemblage; they dynamically *folded* their traditional knowledge of the complex local ecosystem into their activism. Conceptual use of assemblage is also demonstrated by Hennessy's (2013) paper on endangered giant tortoise breeding programs in the Galapagos and San Diego. In analysing transnational environmentalism, McFarlane (2009, p. 561) described an urban social movement - Slum/Shack Dwellers International (SDI) as a translocal assemblage where prominent activists figured as “imagineers” (Routledge, 2008, p. 212) to inspire, communicate and attract support. Finally, a study of a citizens' anti-nuclear coalition in Canada employed the Deleuzian concept of the rhizome to grasp the fact that there was “no central organization, no executive, and no hierarchy” (Ervin, 2012, p. 58). The coalition shows how an emergent, grassroots, self-generating group - an assemblage - can draw upon the rhizomatic “map” of the environmental movement to construct effective communication and activist practices. All of the studies mentioned just above support the viability of the theoretical framework applied in this paper.

Local environmental formations

Bank Sampah

Aged 38, Bambang Suwerda is the founder of the first Garbage Bank (*Bank Sampah*) in Indonesia. Most of Indonesia has no effective waste disposal system. Bambang was motivated to do something about local garbage disposal when he witnessed the health problems that came from piled-up waste in his home village in Bantul, especially mosquito-borne diseases that killed some children. “Here dengue fever was high ... I knew that where the mosquito was to be found, so was rubbish such as tin cans. From that I began to build a community consciousness about garbage disposal”.² Building that early community consciousness was the first step in forming *Bank Sampah*.

Bambang said the challenge had been to handle both “trash and people”. At first, his idea was scorned by his neighbours. “I experienced many challenges. There was rejection. The concept was strange so residents didn’t want to know about it. For two months I went around the community (...) If you offer a new concept, at least two thirds will reject it”. His most successful strategies for engaging community support were teaching the children about recycling through craft and activities, and holding appealing community events that showcased the benefits of *Bank Sampah*. The idea of a community bank for waste was easy for people to understand because they already knew how a bank operated.

Bank Sampah started in mid-2008 in a small rented shed. It operates like a bank. Sorted garbage (papers, bottles, plastics and so on) is deposited by individuals or groups and credit is entered in a passbook. *Bank Sampah* credit can be exchanged for local services and goods, or for purchasing phone credit, for example, which encourages local youth. Glass, paper, metal and some plastic waste are sold on in bulk to large recycling companies. This provides income for *Bank Sampah*. Colourful plastics are sewn into trendy items by a collective of village women. Organic waste is processed locally into fertilizer, biogas or biofuel. After Bambang completed a postgraduate degree in public health, he devised a business plan. There are now over 600 active passbooks; clients come from across Greater Jogjakarta.

The *Bank Sampah* model has spread rhizomatically across Indonesia (see Saroso, 2014), with 471 community waste disposal banks established since 2012. One *Bank Sampah* operation in Palembang, South Sumatra, has branched out to run a community kindergarten where parents in the poor neighbourhood pay for the service

² Bambang was interviewed at the *Bank Sampah* office in his village on 29 March 2014. For the past five years he has been a lecturer in public health at a private university.

by recycling. They are obliged to bring waste worth Rp40,000 (US\$3.20) per month to cover the fees (Idrus, 2014). Bambang chairs the annual national congress attended by *Bank Sampah* directors around Indonesia but has no other role. He said, "I'm not ambitious. If I were ambitious I would have patented *Bank Sampah* throughout Indonesia". Instead he comes up with solutions to other local environmental problems, for example,

I created a water treatment apparatus that uses a remote control. I designed it and a friend built it. The treatment comes on at night. It can be operated while we are sleeping, by remote control (...) The apparatus can filter rain water into clean water.

Bambang developed the creative desire to efficiently dispose of local garbage from the material experience of accumulated waste and affective grief for local children suffering from disease. To achieve this he created a minority formation (*Bank Sampah*) within the majority formation of entrenched littering and burning habits in his village. This was very much an immanent becoming because to succeed in this endeavour, he had to draw in local people to make it happen; to sort and bring their waste instead of burning it or throwing it away. In terms of the self, Bambang had to increase his local engagement and sociability to achieve a deterritorialization away from local norms of littering. His aim was indeed that of "displacing the social fabric" (Deleuze, 2004b, p. 233) so that innovative practice for local garbage management could emerge.

In terms of *Bank Sampah* as an assemblage, it broke new ground by inviting locals to sort and "bank" their garbage. Yet the logic of the organisation shared discursive ground not only with everyday personal banking practice, but with the common Indonesian practice of *arisan*, a system of rotating credit that takes place at householder meetings (Geertz, 1962). In other words, even though a cutting edge vector of grassroots environmental innovation, *Bank Sampah* is also a recognisable cultural entity; ordered by the co-location of cultural others accustomed to time-honoured practices of local exchange transaction. It demonstrates the decentred, rhizomatic nature of grassroots environmental activism. The seeds for offshoots of *Bank Sampah* were disseminated nationally by word of mouth and media rather than by organisational structure.

Dira³ is 24. She has been the leader of *Jogjakarta Berkebun* (Jogjakarta Urban Gardening) since November 2013. *Jogjakarta Berkebun* is the local arm of the national NGO *Indonesia Berkebun*. Supported by volunteers, it establishes urban food gardens, offers workshops promoting organic cultivation of food plants in small urban spaces, and advocates for local community ownership of food gardens planted on public land. Dira was first motivated by concern about the food she ate, “first, obtaining personal knowledge about what we eat. In *Jogja Berkebun* everything is organic. So I know what goes in my stomach and what it is we are consuming”. Maintaining bodily health was the point of departure for her jump into environmentalism. She desired to eat organic food that was locally grown. She also knew some people who conducted organic gardening, “there was an event going on in Timoho; my friends were learning to make fertilizer from pineapple skin ... subsequently I joined them”.

With an established organic garden Dira and her friends enjoy the produce, “so we plant, harvest, and cook together”. They also educate the local people, “we know what we are doing, and we share that with the public”. They often visit schools and community organisations. Dira is the leader due to her management and communication skills,

We use Twitter. We always upload what we do and how we do it with photos. From the start this movement was also a Twitter movement so yes we share knowledge through Twitter. When *Jogja Berkebun* started it had to get approval from *Indonesia Berkebun* in Jakarta, the headquarters is there. We were asked first whether Jogjakarta had any kind of movement like this. Apparently not, so we created it. Well one of the conditions was to collect more than 200 followers on Twitter, and only then could it be called a movement. So we got it. Then we created *Jogja Berkebun*. This movement became very lively on Twitter; we share everything through Twitter.

The sharing works because, “people always want to show off what they have done with their gardens. They let everyone know what they have planted, what they have done, and how much land they have. So they report to us, through Twitter”. Thus Twitter reports and photo uploads bond and consolidate the *Jogjakarta Berkebun*

³ Dira was interviewed on 14 February 2014 in a small restaurant that uses the organic produce of *Jogjakarta Berkebun*. She met us along with members of her leadership team. At the time, Dira was in the final year of a degree in agriculture.

group; a process of territorialisation. Images have an affective influence; they can amplify flows of energy in an assemblage by rapidly disseminating pictures that move people emotionally and compel them to action. *Jogjakarta Berkebun* represents an example of assemblage on multiple scales – national and local, and also *becoming* through localisation of an idea and identity. We note with interest the claim that according to *Indonesia Berkebun*'s rules, 200 Twitter followers is enough for a regional movement (*gerakan*) of *Berkebun* to be established and to run itself. This seems at odds with more traditional forms of Indonesian environmental activism. It presumably reflects the cultural preferences of young middle class Indonesians for online communication and identity claims.

Like Bambang, Dira's initial game-changing moment of becoming was affective, and in her case corporeal. She desired her body to be healthy through eating organically-grown food. The progression from there was to get involved in growing organic plant foods. This was a becoming on the plane of immanence with like-minded others. Dira and her friends used Twitter as a productive force to gather names so they could make their own branch of *Berkebun* in Jogjakarta. Thus Dira reconfigured not only her own body, but the majority discourse in twenty-first century Jogjakarta that food is grown commercially outside the city. This discourse is deterritorialised by people growing food gardens in unexpected spaces between inner city buildings. In fact, the logic of the *Berkebun* movement in Indonesia works in relation to centuries of collective subsistence agriculture, which still continues today in village and neighbourhood compounds. In that sense local food production never entirely disappeared from urban spaces. Thus urban food garden collectives do not really represent a new and culturally strange activity, but an antiquated practice re-invented in the context of new urban environmentalism. *Jogjakarta Berkebun* is not only a minoritarian formation that challenges conventional ways of thinking about urban gardens and food, but a relational and affective assemblage; constituted within inclusive bonds of youthful friendship and the youth culture domains of Twitter and photo-sharing.

Finally, it demonstrates generative rhizomatic formations that constitute a broader social movement. The appearance of a new branch of the network - *Jogjakarta Berkebun* - demonstrates how as a rhizomatic formation the NGO is "detachable", and is "reworked" by individuals and groups (Deleuze and Guattari, 1987, p. 12). The relational lines between branches of the *Berkebun* movement in different Indonesian cities can certainly be traced, but they do not amount to a structure of organisation.

For example, the Indonesian press recently reported that low-cost housing residents had formed a collective to grow vegetables hydroponically in an old Jakarta warehouse, harvesting “100 kilograms of vegetables such as celery, kale, spinach and mustard, worth around Rp 500,000 (US\$41.72) every day” (Antara, 2014, p. 9). Not only standard media but the unregulated flow of social media and ICT networking amplify the potency of the rhizomatic formation of urban food gardening, as Dira suggests in her comments about the competitive drive on Twitter.

Tanaman Merapi

Romo Yatmo⁴ is a 60 year old Catholic priest. An avid opponent of the Suharto regime, he began his environmental activism in the early 1990s when leading post-eruption reconstruction on the slopes of nearby active volcano Mount Merapi. Appalled by the long-term livelihood impact of lava-flow destruction, his team formed *Tanaman Merapi* (Merapi Gardening) to mobilize local people to plant trees and conserve water,

We worked co-operatively; if we had trees to be planted, we invited residents and community groups who were interested to gather together for the planting. I had thought for a long time that the planting should be focused, since the focus is how to save water. Because the water comes from above onto the soil but it's all (volcanic) sand. So the water just escapes from the soil where they try to farm. I got the idea that water should be conserved. So anyone who would disturb that water conservation, we had to oppose them.

Romo Yatno's environmentalism works through his faith. He explained, “I'm not telling anyone to do it (practice tree-planting and conservation), I just say: Please come! Yes. Because if you just tell them it is hard. Instead of me chasing them, I say: ‘if you want to join me I will show you the works of God’”. For him, environmental rehabilitation and conservation constitute acts of devotion because nature is God's creation. “If we found a spring, we made a trough and distributed the water from there to the residents. So once again there is a close relationship between water and vegetation. If we did reforestation then the water was used to much greater effect”.

Risking accusations of idolatry, Romo Yatno drew on Javanese animism to ensure the viability of water conservation. For example, he arranged for many deep-rooted

⁴ Romo Yatno was interviewed on 31 March 2014 in the church office at dusk, with parishioners coming and going.

banyan trees – known as *pohon hantu* (ghost trees) - to be planted because he knew the villagers would not cut them down,

We planted banyans there. The villagers have a celebration called *Mertibumi* every year, it means thanksgiving from society, blessings on the earth. So those trees we planted were later surrounded by crops. In the lead up to the celebration they are fenced with funeral fabric so it's mystical and flowers are put there, and incense is burned in front of that tree, so it's a mystical thing ... this is a technique of using local wisdom to conserve water ... the residents will not cut down those trees, because the banyan is believed to contain spiritual energy while the tree itself actually conserves water.

Their activities made water appear. "After we planted and planted we found springs. That water was crystal clear where we had planted a banyan."

He also employed interfaith dialogue to consolidate the struggle against commercial sand-mining, "Catholics and Muslims united we drove them out; we resisted them ... I was accused [by police] along with the *Kyai*. But we still went ahead with it until the sand diggers were gone and then we could start planting again". The change was also in the people themselves, "the *kampung* I was working with planted sweet soursops, citrus, durian, and avocado; we hope to see the harvest in due course. The locals were easy to work with. The change is that they worked together and made compacts".

In brief, forces and discourses that came together in the formation of *Tanaman Merapi* - and the becoming-environmentalist of Romo Yatno - included his Catholic faith, his critical politics and his knowledge of Javanese rural myths and traditions, as well as his ability to enact practical cross-faith dialogue across the religious divide. His game-changing moment was realising how trees greatly improved the water retention of soil, and in some cases created water, both central to the post-eruption livelihoods of local villagers. Subsequently, he folded his faith and his knowledge of traditional practices into an assemblage of collective praxis, drawing in both villagers and volunteers. If becoming is constituted by "desire" that casts the human subject adrift from mainstream norms, then Catholic priest Romo Yatno showed this in incorporating the animist beliefs of the villagers he was assisting, even though he was "accused of idolatry", in his words.

Moreover, Romo Yatno employed a “minor science” of linking planting activity with spiritual anchoring and material outcomes. A line of flight from this assemblage was his involvement in the campaign against sand-mining, which constituted a form of political activism; a “becoming-minoritarian” which was both an ethical action and constitution of self as one who desires to displace the social fabric.

Kampung Hijau

50 year old Agus Susanto⁵ pioneered the well-known *Kampung Hijau* (Green Neighbourhood) in Gambiran, a poor riverside area. The “green” neighbourhood area now stretches over several kilometres. There is a local water management system for drinking water, wastewater and sanitation; several public parks - one is the original riverside forest garden; a resource library; a plethora of labelled bins; a garbage sorting depot; and alternative energy generation from biogas and solar cells. Roadsides are planted out with vegetables and flowers. Burning refuse is discouraged. The river banks are protected by dikes constructed from waste concrete blocks by community labour.

Agus Susanto’s critical environmental awareness came about when he realised the negative health implications of the polluted, bleak urban landscape near his home, which adjoins the riverfront reserve. Then a community member asked him directly what could make a house “green”. Subsequently he took action to make his local surroundings as much as possible like the places he loved best as a child - “I like to see the green, it makes me feel peaceful and calm” - and to ensure the sustainability of local households. However, he could not achieve his dream of green space alone. First he sought the agreement of householders to stop throwing waste in the river and help plant trees, “we went along to talks at the mosque, we talked to the night patrol, to *arisan* meetings, we just talked about the environment everywhere. But even though they were not entirely with us, we continued nevertheless. Because people will be convinced if you offer proof”. The challenge he alludes to should not be under-estimated,

It is hard to change the mentality of society that says just throw it in the river. To say “Do not put waste in the river” is incredibly hard. And to make a movement to clean it is not easy either, but until now we have continued to press ahead. Now it’s okay, only about two per cent of them put waste in the

⁵ Agus Susanto was interviewed on 7 April 2014 in the urban forest garden he created along the Gajah Wong River in Gambiran. Now retired, he is secretary of the *Kampung Hijau* committee.

river, it's different than it was at first. But at first they just went back and forth putting waste into the river. The river itself was jammed full.

Agus Susanto felt he had achieved something significant in pioneering *Kampung Hijau*. Over twenty years ago he had a vision of the kind of place he wanted to live in (clean river, riverside park) and he has animated that desire as a becoming-environmentalist. "By instinct we want to do something for the earth even just because we are attracted to feelings of pleasure". This was becoming on the plane of immanent relations; he has wrought a transformation by working with others who now constitute the assemblage of *Kampung Hijau*. Most locals no longer throw rubbish in the river; they too are becoming-environmentalist. Collectively they effect a rupture with habitual practice, opening up new possibilities for daily existence in a poor suburb.

There was also strong materiality in the assemblage of *Kampung Hijau*,

Well the idea of making it a city forest garden here began with the land itself, it is not owned by the state, it was land that is really no man's land (...) there is a law that if it is not put to use it must be returned to the State. So that's what we asked for, because if it is not saved it will become residential-zoned, and so ten years into the future we would have had no land⁶. Environmental pressure was strong to create public facilities. Because once urban development starts it cannot be stopped. How do poorer people want to live in Jogja? That's my underlying question for saving 5000m2 to make here a city forest garden.

The creation of the city forest garden and moves towards local sustainability employ a "minor-science" (Deleuze and Guattari, 1987) since the process will never be finished. Operating in the periphery zone of poor urban space, the assemblage of *Kampung Hijau* represents a line of becoming that has neither beginning nor end. Its creative potentials are multiple and lead off in different lines of flight, such as proposals for solar-powered street lights and vertical vegetable gardens.

Indonesia Dragonfly Society

⁶ The land he talked about was technically available to the community for recreational development. However, if not used for community facilities for 20 years it would be returned to the State, which could then assign residential zoning, meaning absence of recreational space for the community.

Tabita Makitan⁷ is 21 years old and studying for a degree in anthropology while taking a leading role in the Indonesia Dragonfly Society. She described herself as having been “a mall kid, someone who hung out in the mall. I used to not care about it [the environment] at all, but when I got into dragonflies I became aware of it all. So for me, it really changed my life hahahaha. But I do not want to be called an activist, because activist is a very heavy term”.

Her interest began in Malang (East Java) in a high school photography class. She took close-up photos of dragonflies in the Wéndit wetlands. Finding them beautiful and intriguing, she pursued her interest in dragonflies, drawing her friends into a study group. Supported by a teacher, she founded the first Indonesian Dragonfly Society (IDS). IDS has been documenting dragonfly species in wetlands since 2010. Members supplement the taxonomy with research online. IDS gained a travel grant from the Worldwide Dragonfly Association to present findings on Wéndit dragonflies at the International Dragonfly Congress in Japan in 2012. At the congress, Tabita and her friends became acquainted with the Dragonfly Biotic Index, which identifies dragonflies as an indicator of environmental health and climate change. They were motivated to actively campaign for wetland conservation and obtained donor support. Since moving to Jogjakarta, Tabita has started an offshoot branch of IDS and members are studying dragonfly species in local wetlands. Tabita is a sponsored student member of the Worldwide Dragonfly Association (<http://worlddragonfly.org/>).

In terms of becoming-environmentalist, Tabita entered the field through an initial aesthetic focus on the dragonfly that grew into a research interest where habitat preservation became important. “I came to understand that in the environment where there is one thing wrong, other wrong things follow because there is an imbalance in it”. After the world dragonfly congress in Japan Tabita knew about the significance of dragonflies for indicating viability and sustainability of wetlands, “I became confident and saw a clear way forward. Okay so now I'm active in the environmental movement and water conservation activities, and I also sensitize people to start appreciating the environment”.

Tabita brings her anthropological training to bear on dragonflies,

⁷ Tabita was interviewed in the university canteen, between lectures, on 21 April 2104.

That's the unique thing I do; if we go into the field they are busy testing *ph* and water, while I'm busy talking to the mothers about dragonflies according to the surrounding culture. That way I discovered that in Bali and in Banyuwangi there is a specific local name for each species. In Bali they eat dragonflies. In Banyuwangi they have a song about them; the children play a game with dragonflies and there is a song to accompany the game, called *untring-untring*.

Tabita's training enables her to undertake socio-cultural research, to develop artistic forms of activism, and to draw in creative people,

I developed the Malang Dragonfly Festival to make people aware of the role played by dragonflies. So we made stands, people painted dragonflies, we had drawing workshops for children, and a dragonfly photo exhibition. In that process, Malang artists became interested. Even up to now they are still very productive, having made 13 songs about dragonflies. To make those songs they had to know about dragonflies, right? So they sought knowledge in the field and did a little bit of research.

Thus her endeavours in art and folklore represent a rupture with scientific rationality.

Tabita defines herself as not an activist and not a scientist, even though the organisation she leads has been recognised by the scientific community and is dedicated to raising awareness of wetland conservation. Her anthropological and artistic standpoint in the assemblage is indeed a becoming-minoritarian one, probing the environmental challenge of the dragonfly through folklore and expressive arts. This demonstrates the differences and potentialities of IDS as a small environmental NGO. As she expands her knowledge of anthropology (an exterior source of input) she folds it back into her interior processes of becoming-environmentalist in IDS, facilitating increased social engagement in a non-linear progression that seems to have no final goal. Her non-scientific approach also represents a deterritorialisation of sorts, away from the IDS activities of taxonomy and habitat description. Recognition by the Worldwide Dragonfly Association, and the resource of the Dragonfly Biotic Index, constitute exterior forms of legitimation and knowledge that are folded into her leadership of IDS. The expansion of IDS from Malang into a branch in Jogjakarta illustrate how assemblage too has rhizomatic potential. It also illustrates global and local conservation discourses operating in a broad rhizomatic network of species-specific conservation.

Discussion

From the data, we first propose that local becoming-environmentalist in Indonesia is anchored in the material and driven by desire; by creative passion linked to a “break-bifurcation” (Guattari, 2000, p. 56). Points of rupture led to these five people thinking anew the local relationship between humans and some aspect of the natural world. In every case the point of rupture was constituted in the contested materiality of the physical environment. Bambang was disgusted by the littered, dangerous space of his peri-urban village and desired it to be clean. He created *Bank Sampah*. Dira was worried about putting bad food in her body and sought unused urban spaces to grow organic foods through creation of *Jogjakarta Berkebun*. Romo Yatno wanted to enthuse disenfranchised villagers to transform devastated post-eruption volcanic slopes into productive land for sustainable agriculture; devising *Tanaman Merapi*. Agus Susanto was disgusted by the ugliness of a blocked and polluted river and barren littered riverbanks near his home so he founded *Kampung Hijau*. Finally, Tabita founded the Indonesian Dragonfly Society after spending time in previously unremarkable wetlands. She came to see them not only as a habitat for the beautiful creatures she admires, but also as a place to protect from environmental change and risk.

Second, in every case these individuals had to recruit and work with like-minded others to bring about desired change. Their processes of becoming-environmentalist were entwined in the social and reached back to past traditions and practices. Their minoritarian leadership did not sit apart from the inter-subjective fabric of culture and traditions, but folded it into effective communication and strategies at a collective level. As grassroots environmental leaders they were located “in-between” mainstream thinking and the cutting edge of becoming-desire. Embedded in existing communities they facilitated a consensus process whereby new minoritarian subjectivities were constituted for members to form a new assemblage with innovative grounds for social practice and action.

Third, the assemblage of grassroots environmentalism – the group - is in all cases a temporary compositional unity, one that continues to amplify possibilities for new directions and actions – deterritorialisations. At the same time though, each group depends on consolidation of shared semantic territory. For example, in early attempts to deterritorialise habitual littering Bambang was largely ignored by

community members, but as the different thinking grew through children's activities and local gatherings, the assemblage of *Bank Sampah* developed into a strong and significant minority formation; collective practice constituting a local territory of sustainable environmental practice. The assemblage of *Jogajakarta Berkebun* can similarly be read as a form of deterritorialisation in planting organic food crops in unexpected urban spaces. Dira's account points to consolidation of this urban citizen's movement through Twitter, once again engaging shared territory of sustainable environmental practice, but this time online.

Romo Yatno's actions in reinforcing Mount Merapi villagers' animist beliefs and practices represent a measure of deterritorialization from his faith. However, appropriating local animist tradition to consolidate cultivation and protection of water-preserving (sacred) trees can be equally read as creating territorial consistency in the assemblage of *Tanaman Merapi*. In the example of *Kampung Hijau*, like *Bank Sampah*, it was important that the deterritorialisation represented by a whole new idea of local environmentalism should be quickly and effectively normalised in the local community and its habitual practices. Tabita broke territorial ranks with her mall-frequenting friends when she began her affective relationship with dragonflies and swamps. Yet she created a new territorial assemblage with other friends who shared her passion.

Conclusion

We found the ideas of Deleuze and Guattari were productive for grasping the conditions under which diverse new grassroots environmental groups emerge. As collective entities they appear and cohere as a process, or line, of *becoming*; a cutting edge vector with no envisaged endpoint. In each case the new formation constituted something more than the sum of its parts; an *assemblage* that made ripples of change by pulling upon key concepts in the global and national environmental sphere, as well as local cultural and social discourses. The groups demonstrate *becoming-minoritarian* in terms of those who join them. There is an oppositional tension at work, in that becoming an environmentalist requires a separation from the mainstream and a *deterritorialisation* that is simultaneously an individual and a collective process.

We conclude that all five examples point to the *rhizomatic* nature of group formation within the broad social movement of environmentalism. In each case they rework

something local in the context of global currents of activism and change. There is complex new ground of decentred and diverse local urban environmental activism here in new millenium Indonesia. It is striking that the concerns of the five groups are in themselves simple, but pertain strongly to complex human relations with nature and their immediate environment. This paper throws light on different kinds of grassroots environmentalism and environmental group formation to that exposed over the past several decades by international organizations in Indonesia such as World Wildlife Fund, Conservation International or Friends of the Earth, or national level organizations such as WALHI and JATAM. The accounts from Jogjakarta point to the localized way that environmental concerns start, and often show the linking of these local concerns to larger national and international environmental issues and needs.

Notably, not only did the pro-environment attitudes and practices of the groups show significant influence from objective problems/issues in their local environment, as Inglehart (1995) suggests, they also reflect the desire to disrupt the status quo, to form a minority assemblage within the majority social formation, echoing the claims of Deleuze and Guattari (1987) on minoritarian becoming. However, their formations and interventions are at the grassroots level, not at the macro level of political activism for sweeping structural change. We propose that organically arising environmental groups at the grassroots level matter as much as international agreements, political lobbying, civil actions and mass demonstrations. One of the most important effects of such groups is the sensitising of ordinary people to key environmental problems at the local community level, and the opportunity for them to take meaningful pro-environmental action. In the future, as Guattari pointed out, much more than the simple defence of nature will be required. It will mean working with local issues and materials from a "becoming-minoritarian" position that points the way to transformative ethical action and constitution of environmentalist subjectivity at community level.

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