

NGOs, the Internet and sustainable rural development: The case of Indonesia

Journal:	<i>Information, Communication and Society</i>
Manuscript ID:	RICS-2009-0057
Manuscript Type:	Original Article
Keywords:	Internet adoption, Indonesia, Non-Governmental Organisations (NGOs), rural sector, sustainable development, rural reform



NGOs, the Internet and sustainable rural development: The case of Indonesia

Abstract

Today sustainable rural development is of paramount importance in Indonesian development. Yet, different social actors have different perspectives on it. Non-Government Organisations (NGOs) in Indonesia have established themselves in pivotal positions in the social, economic and political landscape across the country, and a large amount of their work has been connected with development in the rural sector. But, there has been little attempt to understand how NGOs in Indonesia, particularly rural NGOs, engage with the issue of sustainable rural development itself. Since rural development is one of the oldest issues to be discussed among activists, since the early days of Indonesian NGOs, it is interesting to see how they understand the issue of sustainability in rural development and rural reform. An empirical study was conducted recently to see how some Indonesian NGOs, in their endeavour to respond to and broaden the discourse, utilise Internet technology. The study employs a combination of quantitative and qualitative approaches to build a detailed story about how different organisations working in rural development deploy strategies to deal with the issue. By doing so, it aspires to contribute to the advancement of theory relating to the efficacy of Internet as a tool for social reform and sustainable development by taking Indonesia as a case study.

Keywords: *Internet adoption, Indonesia, non-governmental organisations (NGOs), rural sector, sustainable development, reform.*

1. Introduction

Any paper on development in Indonesia must take into account the fact that nearly 50% of the labour force works in (or more than 65% of the total population is engaged in) rural activities (BPS 2008). Stories from the rural sector are not always pleasant however; in fact many are bitter. In Indonesia the sector has been characterised by farm labour with low productivity and, as a consequence, rural inhabitants' standard of living is very low. This problem is classic in rural development in the East (for example, see Boeke 1952). The quality and fertility of rural land has also deteriorated as a result of the 'green revolution' carried out desperately by the Indonesian government since the late 1960s to the end of the 1980s. Following the oil-boom, with national development policy in favour of industrial-oriented over agrarian-based development, not only did more farmers convert to factory work, but significant areas of farming land have also been continuously converted into industrial estates. These are among the severe problems hampering Indonesian rural development today, which attracts not only the attention of the government and the private sector, but also that of non-governmental organisations (NGOs).

The important role of Indonesian NGOs in the country has been widely recognised, not only in promoting

1
2 wider democracy and adherence to human rights (Ganie-Rochman 2002), but also in development,
3
4 empowerment and the improvement of livelihoods (Eldridge 1995; Hadiwinata 2003). For NGOs working
5
6 on rural issues, reforms in the rural sector have become the main agenda in responding to multifaceted
7
8 problems hindering rural development. The reform is orientated, broadly, towards sustainable development
9
10 in the rural sector. However, 'reform' and 'sustainability' in this sector is complex and affects the activism
11
12 of rural NGOs. To help them deal with such complexity, many rural NGOs have been adopting and using
13
14 Information and Communication Technologies (ICTs), particularly the Internet. They have an emerging
15
16 opportunity to use the Internet to support their quests for reform and sustainability in the rural sector. Rural
17
18 NGOs have to learn how to appropriate the technology more strategically and politically to achieve this
19
20 mission.
21
22
23
24

25 Although there have been some studies on the subject of the Internet and socio-political dynamics in
26
27 Indonesia (Hill 2003; Hill & Sen 2000; 2005; Lim 2002; 2003a; 2003b), there has been little research
28
29 targeted systematically at how Indonesian NGOs working in the rural sector use the Internet to achieve their
30
31 mission and goals. This paper aims to fill this gap. Exploring the case of NGOs working in the rural sector
32
33 in Indonesia, this study aspires to contribute to the advancement of theory relating to the efficacy of
34
35 Internet-mediated communication as a tool for social reform and sustainable development.
36
37
38
39
40

41 **2. From 'development' to 'empowerment': NGOs agenda in rural development**

42 **2.1. Problematiques in rural development**

43 Rural development is an area in which the Indonesian government has played a major role, especially during
44
45 Suharto's New Order regime, since the late 1960s. Due to food scarcity, as a result of poor political
46
47 economy and population explosion, rural development was seen as a way of remedying the problem, with
48
49 much intervention from the government. Aiming to enforce agriculture intensification through high-yielding
50
51 seeds, subsidised fertilisers and irrigation systems as part of green revolution, the government established
52
53 programmes such as *Bimas* (*bimbingan massa*/mass guidance) and *Inmas* (*intensifikasi massa*/mass
54
55 intensification) (Booth 1992). By the early 1980s through various programmes under *Inpres* (presidential
56
57 instruction), the government changed the face of most villages by providing them with roads, village-halls,
58
59 schools, health-centres, markets and so on (Liddle 1985). In addition there were also interventions aimed at
60

1
2 creating state-sponsored grassroots organisations such as LKMD (*lembaga ketahanan masyarakat*
3 *desa/village people's defence council*), PKK (*pembinaan kesejahteraan keluarga/family welfare guidance*),
4 *Dasawisma* (neighbourhood association), *Karang Taruna* (village youth association), and the like
5
6
7
8
9 (Hadiwinata 2003). This situation seems to confirm the observation made by Arce et al (1994) which
10 suggests that interventionist state attempts to control rural sector by establishing powerful agencies to
11 monopolise rural community development activities.
12
13

14
15
16 Many argue that such intervention has in fact been more detrimental than beneficial, in the long term (e.g.
17 Daorueng 2002; Hart 1986; Sangkoyo 1999). First, agricultural produce like rice became highly politicised
18 by the government and the ruling party, particularly under Soeharto (Sangkoyo 1999), placing peasants in a
19 vulnerable position, politically. Second, although the implementation of a green revolution, for a short
20 period, was successful, this did not last long as the country turned out to be the major rice importer in the
21 world. Indonesia became a major rice importer in 1996, after failing to boost rice production. The rice
22 imports hit six million tonnes during the 1998 crisis. Although this figure fell to four million tonnes in 1999
23 and 1.5 million tonnes in 2001, this is a set back because Indonesia won a FAO medal for the achievement
24 of 'self-sufficiency' in rice in 1985 (Daorueng 2002). Third, yielding more rice has proven to be
25 problematic because vast areas of agricultural land have lost their fertility due to the poor chemical
26 treatment and high-yielding seeds of farming intensification schemes. Fourth, there were no genuine,
27 independent grassroots groups or organisations in rural areas which are important to build a healthy fabric of
28 social life. The New Order's intervention transformed the nature of rural society, marked by the emergence
29 of rural elites as a class of favoured clients of the state (whose activities were under guidance 'from above'
30 and increasingly became implementers of government's programmes) and rural lower society who were
31 commonly poor. In other words, rural society was torn apart (Hart 1986).
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52

53 This has all contributed to the deteriorating quality of life of rural people, as farmers are kept trapped in
54 poverty and thus become increasingly powerless. But, this is not the only problem. As a result of the
55 industrialisation policy, massive areas of agricultural land were converted into industrial estates or urban
56 housing because farmers had very weak bargaining power to defend their land against demand from industry
57 or the rich 'people from the city'. Young villagers went to the cities to look for 'better jobs', mostly as
58
59
60

1
2 factory labourers or casual workers in informal sectors, leaving the villages with little hope for the future.
3
4 Since the 1998 reform, despite the government's claim to have been trying to 'revitalise' the rural sector, the
5
6 situation has not improved. Farmers are still poor, or have become even poorer; agricultural land has not
7
8 reclaimed its fertility; farming is not carried out sustainably; agricultural produce is still politicised;
9
10 conversion of rural land for non-agricultural purposes continues; rural civil society remains weak and
11
12 farmers are politically neglected despite villages being seen as sources of voter support.
13
14
15

16 17 **2.2. The role of NGOs in rural development**

18 Non-governmental organisations (NGOs) in Indonesia have long been concerned with rural development
19
20 issues and problems. There are four important characteristics of NGO movements that need to be taken into
21
22 account. Firstly, Indonesian rural NGO movements have a long history before their 'boom' in the 1990s.
23
24 Starting in the early 1970s, a number of NGOs like *Bina Swadaya*, LP3ES, *Sekretariat Bina Desa*, *Dian*
25
26 *Desa*, and many others were established and focused their activities on rural issues, community development
27
28 and the promotion of self-management activities at village level (Hadad 1983; cited in Hadiwinata 2003:91).
29
30 During the New Order regime, many of these organisations had to adopt 'friendly' strategies by not
31
32 engaging in grassroots political activities, partly because of the repression of NGOs by the government
33
34 (Fakih 1996; Hadiwinata 2003; Sinaga 1994). But throughout the 1990s, many Indonesian NGOs, including
35
36 those working in rural sectors, started adopting more forward looking strategies and openly expressed their
37
38 opposition to government policies in rural development. The military often assumed rural NGO activities at
39
40 village level (as well as labour NGOs at regional or factory level) were aimed at organising local grassroots
41
42 movements and thus masked political agitation (Billah 1995). Subsequently, for the last 10 or so years of its
43
44 political power, Suharto's New Order launched 'black-propaganda' against NGOs, often involving
45
46 repressions and violence against activists. This situation became favourable for Indonesian NGOs, to some
47
48 extent, after *reformasi* (political reform) in 1998. Seen as important actors in in the movement to overthrow
49
50 the authoritarian regime (Hill 2000; Uhlin 1997), NGOs regained some trust from wider society who used to
51
52 be 'under the influence' of the New Order's anti-NGO campaign. Despite some difficulties, Indonesian
53
54 NGOs managed to pin down their pivotal roles in the socio-economic and political dynamics of the country,
55
56 often through their role in continuously advancing the reform agenda.
57
58
59
60

Secondly, the orientation of activism goes beyond development and food security. For these NGOs, the aim

1
2 of rural sector reform is primarily to improve rural livelihoods, to promote sustainable rural development,
3
4 and to restore the economic, social, political and cultural rights of the rural communities. The aim is not just
5
6 food security (as campaigned by the New Order) but food sovereignty, which means the ability to meet the
7
8 national need without having to be dependent on supplies from other countries. This certainly requires the
9
10 fulfilment of farmers' rights and new orientation towards rural development.
11
12

13
14 Thirdly, in order to do achieve this, Indonesian rural NGOs, in general, have two approaches. One is the
15
16 '*negative-logic*' approach: criticising and standing against the negative aspects of rural development policies
17
18 and practices. The other is '*positive-logic*' approach: promoting alternative practices in rural development.
19
20

21 In terms of building the movement (Crossley 2002; Della-Porta & Diani 2006; Diani 2003), these
22
23 approaches are what characterise the rural NGO movement in Indonesia the most. In their first approach,
24
25 rural NGOs in Indonesia often risk being misunderstood as 'anti-development' for their consistent critical
26
27 stance towards status-quo rural policies and development practices. These NGOs carry out advocacy
28
29 towards farmers' rights; support agrarian reform to reclaim farmers' lands; oppose further agricultural land
30
31 conversion; support farmers' union activities and empower rural civil society through research, lobbies and
32
33 advocacy endeavours (Eldridge 1995; Ganie-Rochman 2002; Hadiwinata 2003) and thus are often
34
35 categorised as 'rural-advocacy' NGOs¹. On the other hand, using the positive-logic approach, NGOs help
36
37 with training farmers; provide support for rural home-industry or small-medium enterprises (SMEs,) and
38
39 help with better access to marketplaces. They provide assistance to farmers to enable them to learn more
40
41 about organic and sustainable farming processes and restore soil fertility; help with access to micro-credit
42
43 schemes for women in rural areas; help to politically empower rural communities; and –to a limited extent—
44
45 ensure agricultural produces are being fairly traded (Hadiwinata 2003)². Non-governmental groups and
46
47 institutions which undertake such activities are generally known as 'rural-development' NGOs. The
48
49 categorisation of advocacy v. development organisations in fact also applies for more general NGOs both at
50
51 practical and analytical level (as demonstrated in Eldridge 1995; Ganie-Rochman 2002; Hadiwinata 2003;
52
53 Holland & Henriot 2002).
54
55
56
57
58
59

60 These different approaches enrich the NGO movement in the rural sector. The shared belief between these
different NGOs is that for rural sector reform, mere development orientation is not enough. Instead, it is

1
2 empowerment that becomes crucial in making sure that reform in the rural sector will sustainably benefit the
3
4 farmers and the whole society. As hinted by an Indonesian scholar researching Indonesian civil society
5
6 earlier (Hikam 1999), empowerment here (and in the rest of this paper) is broadly defined as process
7
8 through which the organisation's beneficiaries (i.e. people or society) obtain the opportunities for self-
9
10 sufficiency and self-dependency, either directly by themselves or through the help of others. This includes
11
12 encouragement, skills development, opportunities, and access, and focuses on eliminating the future
13
14 dependency of the individuals to help them attain their goals. Instead of development, empowerment has
15
16 become the call for most NGOs working in rural issues. As one NGO, reflecting on its activities, puts it:
17
18

19
20 We contribute in this context, particularly in empowering peasants. ... There are various ways to do
21
22 so, but in order to empower them we need to help the farmers to help themselves in self-organising
23
24 and self-mobilisation, then [we must help them with] good access to marketplaces using mechanism
25
26 like quality assurance [for agricultural produces]. In the bigger context of rural movements what we
27
28 have done is just a small part because we focus only on the empowerment of production and
29
30 economic aspects. For other aspects that need empowerment, we have to collaborate with other NGOs
31
32 or farmers organisations (Indro Surono, interview, 3/12/2005).

33
34 The comments of Indro Surono above represent the views of many other NGOs' on the matter. Certainly,
35
36 having to limit their focus to promoting rural sector reform, does not necessarily make NGOs lose view of
37
38 the 'bigger picture' of their activities. In fact, it can make it clearer:

39
40 [In our development activities] we apply some standards which actually reflect the socio-architectures
41
42 of the problems; social justice that we aim to achieve. This all is part of our blueprint in promoting
43
44 organic and sustainable agriculture. So, it is clear that social justice is structured in our organic
45
46 movement. It is the same with our other activities like quality assurance for organic agricultural
47
48 produces as it implies strong organisation of farmers. We want the farmers strongly organised to fight
49
50 for their own rights. We work on this issue with other rural [advocacy] organisations. If farmers have
51
52 strong associations or organisations, they can build their own internal mechanism. Externally, this
53
54 strengthens their bargaining positions. Thus, while we work on quality assurance, other colleagues are
55
56 working on strengthening farmers organisations. That's how we work (Agung Prawoto, interview,
57
58 3/12/2005).

59
60 The two reflections above indicate an emergent strategy, which has a new meaning and contextualisation:
61
62 the networking of movement for rural empowerment. Such a strategy, while effective, requires (or
63
64 presupposes) a relatively high-degree of co-operation and collaboration. The realm of NGOs is not free from
65
66 conflict or competition. Many organisations have now to compete against each other over limited resources.
67
68 However beyond this competition NGOs will realise that eventually at the very practical level they cannot
69
70 but cooperate with other organisations if they are to be successful in their programmes. For example, while
71
72 nearly all rural development NGOs activities assume existing organising endeavour (*pengorganisasian*),
73
74 many rural advocacy NGOs deduce that development-aspects of the community are being dealt with by their

1
2 developmentalist colleagues. It is at this networking level that rural NGOs come together to share different
3
4 issues or problems faced by farmers and can therefore solve them more effectively. For instance, problems
5
6 related to economic aspects or access to markets are usually best resolved with a development approach and
7
8 problems related to political aspects or development policy are best tackled using an advocacy approach (as
9
10 also suggested previously by Billah 1995; Fasih 1996). This is where not only can the use of the Internet
11
12 facilitate the exchange of issues, agendas and concerns, but it can also help extend the organisations'
13
14 perspectives as more information becomes available on the Net. As the Internet is both a communication
15
16 platform and an information resource, it provides NGOs with a way of coordinating activities, whilst at the
17
18 same time collating and sharing useful and tactical information. Such approaches are not only beneficial for
19
20 NGOs, in that they can collaborate and network more effectively, but they are important for farmers and
21
22 rural communities, in that they increasingly become aware that development (or economic) aspects are
23
24 strongly tied and influenced by advocacy (or political) aspects in rural development. This is important so
25
26 that the farmers can engage themselves more effectively and more meaningfully in the socio-dynamics of
27
28 sustainable development and reform in the rural sector. In the recent political economy development, the
29
30 rural sector is no longer subject exclusively to national development policies, but increasingly globalised
31
32 and regulated within the World Trade Organisation (WTO) under AOA (Agreement on Agriculture)³ (Kwa
33
34 2004).

35
36
37
38
39
40 It is therefore important for NGOs to focus their endeavours on empowering farmers and rural society so
41
42 that in the globalised economy they can still have a say in deciding their own life, as one NGO
43
44 representative reflects below.
45
46

47
48 [We envisage that] one day it would be the farmers who are able to carry out advocacy works for
49
50 themselves, to protect them from government repression or brutal [implications of] globalisation in
51
52 rural sector. But we have to start building this ability now. We have to start by involving them to
53
54 understand, become aware of, and identify the actual problems [in rural reform and development].
55
56 Then, we have to encourage them to find the solutions of their own, and communicate them to the
57
58 communities through dialogues. Only by doing this we can stop the dependency vicious circle.
59
60 Farmers used to be dependent on the [New Order] regime and now there are apparent dangers that
they can be dependent upon NGOs. We have to avoid this. (Muhammad Riza, interview, 30/11/2005)

It seems clear that the orientation of rural sector reform, for NGOs, is more one of empowerment rather than
merely development. This implies a strong building block of rural NGO movement so that the empowerment
endeavour can be carried out effectively.

1
2
3 Lastly, this brings in another characteristic of the current Indonesian rural NGO movement: its international
4 links. Either for pursuing development goals or organising advocacy activities, the international network of
5 rural NGOs, facilitated by the use of information and communication technology like the Internet, has
6 increasingly become more instrumental. Such an engagement with international organisations has enabled
7 the organisations not only to spread the concerns of Indonesian NGOs about reform and development in
8 rural sectors across the country in a speed and scale that has never been seen before, but also to help them
9 network with other similar organisations at various levels, from local to global, to exchange ideas,
10 experiences and support. A profound example is Indonesian rural NGOs' engagement with *La Via*
11 *Campesina*, a growing international peasant movement network, which not only furthers the rural sector
12 reform and development agenda at national level in Indonesia, but also advances rural issues and integrates
13 them at a global level.
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

29 To summarise, four of the most important characteristics of rural NGOs in Indonesia today have been laid
30 out: (i) they are part of a long standing movement that boomed in the 1990s; (ii) there has been a shift in the
31 centre of activism, i.e. from economic development and food safety, to also include food sovereignty and the
32 empowerment of famers; (iii) there has been the proliferation of two main categories of movement:
33 advocacy and development; and (iv) a strong international component of the movement has emerged. These
34 characteristics are very much influenced by –and reflected in–the way these rural NGOs operate, both at
35 national and global levels and, arguably, are consequences (intended or unintended) of the use of
36 information and communication technologies (ICTs), particularly the Internet, in the organisations.
37
38
39
40
41
42
43
44
45
46
47
48

49 **3. Adopting the Internet, Empowering the movement: Four dimensions of adoption**

50 NGOs and civil society organisations (CSOs) have been active users of the Internet since the early days of
51 its introduction in Indonesia (Hill & Sen 2005; Lim 2003b; Purbo 1996). The development of the Internet in
52 the country began in the early of 1990s. In terms of users and subscribers, Indonesia is lagging behind other
53 countries with only around 5% of the population (230 million) using the Internet. In Southeast Asia, the
54 highest proportion of users is found in Singapore (29.9%), followed by Malaysia (25.15%). According to
55 APJII (Association of Indonesian Internet Service Providers), over the past few years, the number of Internet
56
57
58
59
60

1
2 users has increased very significantly, leaping to over 770% during 1998-2002, from half a million to 4.5
3
4 million (APJII 2003). This number was 16 million by 2005 and is approximated to be 20 million by 2007
5
6 (APJII 2007). However, Internet access is still highly unevenly distributed, resembling 'technological
7
8 apartheid' (the term coined by Castells 1999) in many regions of Indonesia. Despite the government's
9
10 efforts, Internet access is still concentrated in big cities in Java, Bali and other major islands. Rural area and
11
12 other smaller islands still suffer from low availability of Internet and communication infrastructure. People
13
14 in the area with limited access, like rural villages or remote islands, connect to the Net through *warnet*
15
16 (*warung Internet* or Internet kiosk, also known as telecentre) whose very idea is to bridge the problem of
17
18 unequal availability of access (James 2006). In West and South Sumatra provinces, for example, women
19
20 farmers are very active in searching of information on technology and market related to their daily work
21
22 through *warnet* (Laelasari 2004). Other instances are to be discussed later as part of the argument of the
23
24 paper. As the Internet not only facilitates communication and collaboration of organisations within and
25
26 between countries (Castells 1996; Dutton 1999; 2004; Warkentin 2001) but also contributes to the spread of
27
28 issues and concerns (Dutton 2004; McConnell 2000; Surman & Reilly 2003), it plays a pivotal role in the
29
30 change strategy of the NGO movement.
31
32
33
34

35
36 However, not much is known about how and to what extent Indonesian NGOs adopt and use the Internet. By
37
38 triangulating quantitative and qualitative methods (Danermark *et al.* 2002; Gilbert 1992), this study aims to
39
40 explore the features of the diffusion, use and impacts of the Internet in Indonesian NGOs, especially in
41
42 relation to advancing rural sector reform and sustainable development. This study collects data in 2005-2006
43
44 through the combination of surveys, in-depth interviews and a series of workshops from a total of 390
45
46 NGOs, about half of which work on rural, or rural-development-related issues (e.g. rural issues, farmers and
47
48 development). The survey was designed to capture the typology of Indonesian NGOs (size, nature of
49
50 organisation, main issues and concerns and activities) and the pattern of Internet adoption and use (i.e.
51
52 period of use, expenditure, reason for using the Internet, significance of use and fields of use, amongst
53
54 others). The target population was the NGOs listed in the four publicly available directories (i.e. SMERU,
55
56 TIFA, LP3ES and CRS). In total, the survey was sent to 957 NGOs and was responded to by 268
57
58 organisations (28% response rate) based in 27 provinces (out of a total of 32 provinces) in Indonesia. The
59
60 data was analysed using Multiple Indicator Multiple Causes Latent Class Analysis (MIMIC-LCA)

1
2 (MacCutcheon 1987; Magidson & Vermunt 2002; Vermunt & Magidson 2002) and temporal social network
3
4 was generated using Pajek (Batagelj & Mrvar 2003). In-depth interviews were conducted to provide in-depth
5
6 insights about Internet adoption, use, and impacts. Interviews were arranged with 42 leaders or senior
7
8 activists from 35 NGOs; three workshops were organised in Jakarta, Surabaya and Yogyakarta (attended by
9
10 35, 33, and 26 participants respectively representing 72 NGOs in total), and two focus groups (FG) were set
11
12 up in Aceh (attended by 18 participants in total, representing 9 organisations). This qualitative data was to
13
14 build case studies (Eisenhardt 1989; Stake 1995) and provide more insights into the quantitative findings.
15
16

17
18 From an observation where 94.03% use PCs in the organisation and 86.94% have access to the Internet, only
19
20 a very small group has used the Internet for more than 10 years (5.97%). Most of them have used it between
21
22 5-10 years (28.73%) and 3-5 years (26.87%). Quite a proportion (19.03%) just started using it within the last
23
24 3 years. This finding confirms the pattern of technological adoption suggested by diffusion theory –with
25
26 ‘innovators’ and ‘early adopters’ (here referred to as ‘leaders’) leading the adoption, followed by ‘early
27
28 majority’, ‘late majority’ and ‘laggards’— which forms a *bell-curve* and, cumulatively, *S-curve* (Rogers
29
30 2003). But, what makes ‘leaders’ and ‘laggards’ (for this classification, see Rogers 1995; 2003) in Internet
31
32 adoption? Apart from demographic aspects (size, age, and financial turnover), it seems adoption patterns
33
34 have some correlation with the NGOs issues and concerns. See Figure 1.
35
36
37

38
39
40 [Figure 1 is about here]

41
42 It shows the first dimension: adoption. In general, NGOs working on development or development-related
43
44 issues and concerns (salient issues are coded green) are estimated to be more likely to be early adopters of
45
46 the Internet, than those working on advocacy-related issues (coded blue). MIMIC LCA shows that NGOs
47
48 working around rural issues (farmers, rural, environment, poverty, civil society empowerment, and so on)
49
50 are estimated to be part of an ‘early majority’ group in terms of Internet adoption⁴. But, what actually drives
51
52 the adoption of the Internet in Indonesian NGOs in general? Internally, it is the need to obtain information
53
54 and to improve organisational effectiveness and efficiency; externally, it is the need to bring about mutually
55
56 beneficial relationships and collaboration among organisations, instead of competition. Figure 2 below maps
57
58 all the drivers for adoption, internally and externally.
59
60

[Figure 2 is about here]

1
2
3 Although Indonesian civil society is not absent from conflicts and frictions of interest, organisational need
4
5 for social esteem or status and egocentric and competitive motives are not strong drivers for Internet
6
7 adoption in NGOs, unlike in other types of organisations (as found in, e.g. Coombs & Hull 1996; Newell *et*
8
9 *al.* 2003; Rogers 2003). Apparently, for Indonesian NGOs, including the rural ones, adopting the technology
10
11 which serves such internal and external purposes (see Fig 2) empowers them in organising their movement,
12
13 expands their network, and, to some extent, therefore increases their bargaining position when dealing with
14
15 other actors in Indonesian politics. From these findings, it is marked that for Indonesian NGOs, in the
16
17 dimension of adoption, activities do matter.
18
19

20
21
22 The survey also shows the second dimension: impact. More than 92% of Indonesian NGOs under study,
23
24 who have used the Internet, find that its use positively or very positively affects the achievement of the
25
26 organisations' goals and missions. It is also found that Internet use significantly or very significantly
27
28 increases the performance of the internal management of more than 87% of NGOs in this study and helps
29
30 nearly 75% of them to become more focused or much more focused in their aims and activities. But more
31
32 importantly, it has widened nearly two-third of the NGOs' perspectives to global level, or at least beyond
33
34 regional, national or local boundaries. As consequence, the use of the Internet has become a major support
35
36 for the expansion of NGOs' networks. See Figure 3.
37
38

39
40
41 [Figure 3 is about here]

42
43 The impacts of Internet use in NGOs as depicted above are also true for rural NGOs, despite limited access
44
45 of the technology in rural areas in the country as discussed. Externally, the Internet has been instrumental in
46
47 expanding organisational perspective and networks so that rural NGOs and farmer communities are aware of
48
49 the latest developments and take part not only at the local, but also at the global level. This has enabled
50
51 much cooperation and collaboration which was difficult, if not impossible, before⁵. Internally, the Internet
52
53 has facilitated capacity-building in many rural NGOs and also for farmers. With such capacity-building,
54
55 NGOs can help farmers to have more direct access to the market, which is essential to introduce sustainable
56
57 agriculture, fairer trade and build firmer economic ground for rural development⁶. In many cases, when
58
59 access is not directly available to rural farmers, NGOs act as hubs to channel the information that the
60
farmers need or use to help their work. Unfortunately no official data is available but according to the most

1
2 prominent Internet activist in Indonesia there are 20,000-25,000 Wireless Internet nodes with a growth of
3
4 2000-3000 nodes per month and many of these are now penetrating rural areas in Indonesia⁷. This finding
5
6 characterises the third dimension of impact: the adoption and use of the Internet in NGOs has *created strong*
7
8 *impacts both on internal and external activities.*
9

10
11 The third dimension is networking. It is evident that the Indonesian NGO network has expanded
12
13 significantly over the past decade. Not only are more links established nationally and globally, but the
14
15 network has also become more cohesive over different periods of democratic transformation in the country
16
17 indicated by the increasing network indicator *k-core* (from 3 to 6 for the international network and 5 to 9 for
18
19 the national network) and *density* (from 0.0021 to 0.0092 and from 0.0029 to 0.0141 respectively). The
20
21 increasing cohesiveness and density of the network seems to have correlation with the socio-political
22
23 dynamics in the country. See Figure 4.
24
25
26
27

28
29 [Figure 4 is about here]
30

31 At the national level, major socio-political events took place in Indonesia during the heightened period from
32
33 pre-1995 to 1998 and significantly affected, but were also affected by, civil society activism (as also
34
35 reported by Harney & Olivia 2003; McCarthy 2002). This study argues that these socio-political events are
36
37 both outcomes and fabrics of the socio-political engagement of Indonesian civil society. As outcomes, the
38
39 events reflect how Indonesian civil society has advanced its movement and partaking in social change. As
40
41 fabrics of civic engagement, such socio-political events provide context and opportunity for Indonesian civil
42
43 society organisations to link each other's work. At the international level, networking between Indonesian
44
45 civil society and international partners has been around for quite a long time, initially for fostering
46
47 democratisation agenda whilst under Suharto's authoritarian regime (already explicitly expressed by Billah
48
49 1995; Fakhri 1996). By means of such networking, local organisations voiced their concern or passed
50
51 relevant information about socio-political problems (usually related to state violence, human rights violation
52
53 or development policies) onto their international partners who would use the information to pressure the
54
55 Indonesian government in international gatherings through their own governments or by way of protests.
56
57 The network, with international partners, has been able to give Indonesian civil society some bargaining
58
59 power to challenge the authoritarian regime and, arguably, to contribute to the efforts in bringing it to an
60

1
2 end, despite questions about the role of international networks during the heightened period of change in
3
4 Indonesia prior to 1999 (e.g. as addressed in Nugroho & Tampubolon 2008).
5
6

7
8 This networking, particularly for rural NGOs, has been essential not only in enlarging capacity, but also in
9
10 being part of global rural movement. An instance would be the involvement of many Indonesian rural NGOs
11
12 in the *La Via Campesina* ('road of the peasants'), whose secretariat is now in Jakarta, Indonesia. LVC is
13
14 the international movement of peasants, small- and medium-sized producers, landless, rural women,
15
16 indigenous people, rural youth and agricultural workers and defends the values and the basic interests of
17
18 farmers. Having members from 56 countries in Asia, Africa, Europe, and America, LVC aims to to develop
19
20 solidarity and unity among small farmer organisations in order to promote gender parity and social justice in
21
22 fair economic relations; the preservation of land, water, seeds and other natural resources; food sovereignty;
23
24 sustainable agricultural production based on small and medium-sized producers. It is evident that in the
25
26 dimension of networking, *there is an enlargement of NGOs' capacity through networking*. An argument
27
28 developed further from the networking aspect is that the network is not just instrumental to social change in
29
30 the country for NGOs; it is the arena for change in its own right (Nugroho 2009), including in the rural
31
32 sector.
33
34
35

36
37 These three dimensions bring about the fourth dimension: roles of the Internet in building the NGO
38
39 movement. The adoption of the Internet in NGOs has given new impetus to many NGOs in bridging global
40
41 and national politics. On the one hand, facilitated by the Internet, more global NGOs paid more attention to
42
43 the Indonesian situation and collaborated with Indonesian NGOs. Political events like the elections in 1999
44
45 and 2004 became an opportunity for connecting with global NGOs (be it in terms of financial support,
46
47 coalition, joint activities or other types of collaboration). Humanitarian relief actions too have been always
48
49 important junctures for collaboration. The aftermath of the Tsunami in 2004, for instance, saw a massive
50
51 scale of global NGOs networking with Indonesian organisations, possibly unprecedented in the country's
52
53 civil society history. On the other hand, the use of the Internet has contributed in building the capacity of
54
55 Indonesian NGOs in that the technology facilitates the extension of networks, provides information channels
56
57 and platforms and these contribute ultimately in widening the perspective and understanding of NGOs
58
59 towards the complex problems they aim to address⁸. This capacity building also enables them to participate
60

1
2 better and integrate closer with global civil society. Participation of Indonesian civil society, including rural
3
4 NGOs, in parallel meetings at multilateral or world summits (such as in Seattle in 1999), as well as
5
6 attendance in the series of World Social Forums (since 2001), arguably contributes to the growing global
7
8 NGOs collaboration with Indonesian groups. In this sense, the advancement of global NGO movements
9
10 seems to be both an outcome and a means of global collaboration, which is heavily mediated by the Internet.
11
12

13
14 Having mapped the dimensions of Internet adoption in NGOs from a general perspective, the next section
15
16 presents a detailed account of the way a rural NGO adopts and uses the Internet and the impacts it brings,
17
18 using a case study.
19
20

21 22 23 **4. A tale from the field: Yayasan Duta Awam⁹** 24

25 To reach a more nuanced understanding about how rural NGOs work and how they benefit from the use of
26
27 the Internet in their organisations, the case of Yayasan Duta Awam (YDA) is presented here. YDA is a local
28
29 farmer advocacy NGO based in Central Java province but works in other regions, i.e. Riau, West
30
31 Kalimantan, Bengkulu and South Kalimantan provinces, in a close network with tens of other local NGOs
32
33 working in similar issues. In addition to its international networking with international organisations like the
34
35 *Catholic Relief Service* and *Ford Foundation*, YDA is also an active member of *SatuDunia*, a national
36
37 Indonesian civil society network, part of *OneWorld.Net*¹⁰. Together with its networks, YDA is now
38
39 championing the monitoring of the implementation of CERD (Community Empowerment for Rural
40
41 Development), a nation-wide project funded by a loan from the Asian Development Bank (ADB).
42
43
44

45
46 The hullabaloo of rural development has become a bitter picture for farmers –the beneficiaries that YDA
47
48 works for and with. However, apart from realising that they are poor, many of these farmers do not
49
50 understand the bigger picture and thus they lose hope in their life. YDA aspires to give this life back to the
51
52 farmers. At policy level, this is done by promoting their rights; at a practical level, it is carried out by
53
54 widening farmers' perspectives about the complexities of the broader situation – not to get them lost in the
55
56 complexities but to let them decide what is best for their own life. To YDA, farmers should be the main
57
58 actors determining their own life – they should not and must not be neglected in rural development policies
59
60 and practices.

1
2
3 Despite being an advocacy NGO, what YDA does is perhaps representative of some of the typical courses of
4
5 action of rural NGOs in Indonesia. Even with huge variations in activism and different approaches
6
7 (development *vis-à-vis* advocacy), by and large, there are three common areas of activity oriented towards
8
9 farmers: (i) awareness raising; (ii) professional capacity-building; and (iii) empowerment of farmers as
10
11 citizens. Firstly, raising farmers' awareness has never been more important, as rural development policies,
12
13 which directly affect farmer's lives, are not always in their interests. For many rural NGOs like YDA,
14
15 awareness raising is central, particularly because globalisation has been affecting rural life in many ways
16
17 and does not always bring about positive development for rural inhabitants. The abstract idea of
18
19 globalisation has a very real face in rural development, which is often frightening and intimidating for
20
21 ordinary farmers in Indonesia¹¹. Globalised rural development, influenced¹¹ by global interests, has
22
23 transformed the country's rural sector into a sector of misery which is being sacrificed for urban
24
25 development and industrialisation; where land is being converted for industrial purposes and where human
26
27 resources are being lost. Literatures on poverty demonstrate that land tenure or land ownership is a critical
28
29 factor implicated in poverty incidence. There is also effect of out-migration of productive labour from
30
31 villages to urban and sub-urban areas in search of work, mainly in industrial sector (Aidit unknown;
32
33 Raynolds 2002; Tjondronegoro 1984). Farmers need to be aware of this situation.

34
35
36
37
38
39 Secondly, building the capacity of farmers helps them cope with what has been left by the failure of three
40
41 decades of green-revolution in the country. In Indonesia, mainstream farming and agricultural policies based
42
43 on the green-revolution have destroyed a lot of rural land which has become very difficult, if not impossible,
44
45 to restore to its natural fertility. Capacity building for farmers (for example by introducing low input and
46
47 organic farming, sustainable agriculture and promotion of fairer trading, etc.) not only improves farmers'
48
49 skills and knowledge but significantly contributes to the effort to restore soil's fertility. Capacity building of
50
51 this sort also offers a possible way out of the vicious circle of structural poverty, as farmers lose their own
52
53 land and become mere 'workers' (*petani penggarap*) and earn little in return for their hard work, giving
54
55 rural people little opportunity to make decisions about their own life. For organisations like YDA, capacity
56
57 building is therefore not only about providing skills but also providing knowledge and awareness for rural
58
59 communities.
60

1
2
3 Lastly, in such a context, rural empowerment now has a new dimension: it provides farmers and rural
4 inhabitants with a better opportunity to participate in rural development and hence enables them to take part
5 in the very processes that affect their life and fully participate as citizens. It is in this spirit that the use of
6 technology like the Internet in rural empowerment has been introduced deliberately. YDA throws away the
7 perception that the Internet is the technology only for 'people of the city', the haves, or even the '*techy-*
8 *literate*': the Internet is also the technology for farmers, for 'people of the villages'. YDA set up two web
9 communities and a mailing list that farmers can join and participate in. One community, *agrodev*, is aimed at
10 helping Indonesian farmer groups with market access and promoting sustainable livelihoods through social
11 networking. The other one, *indosl*, is an Indonesian watchdog network *Pesticide and Transgenic Network*
12 that focuses its concern on monitoring the use of chemical pesticide and transgenic organisms in the
13 country¹². These two communities have around 80 active members linking rural farmers with NGO activists
14 and the wider public. Although these online communities (possibly the first of their sort in Indonesia) are
15 formally set up to help disseminate important agricultural-related issues to its NGO networks, YDA also
16 encourages farmers to be active users of the Internet, to be aware of the global issues in agriculture and rural
17 development, and to engage with international farmers' networks as the Internet has become increasingly
18 available in some villages through telecentres or *warnet* (literally means *internet kiosk*). The result of this
19 effort, for YDA, is sometimes beyond expectation (see Tukimin's experience in Box).

20
21
22 [Box is about here]

23
24
25 YDA itself has reaped the benefit of Internet use. The use spans from using email and VoIP for
26 communication with its partner organisations, searching for information using the web, to providing training
27 in Internet literacy to staff, partners and farmers when the access is available. When there are access
28 problems YDA would relay the information to the farmers through printed materials and likewise, farmers
29 activities are communicated to other organisations through YDA's website. There are three important
30 aspects of such Internet use to consider. *One*, the Internet is a resource to improve effectiveness as it helps
31 the organisation to access sources of information and is important for communication purpose. YDA's staff
32 have become familiar in using email not only for regular communication with their colleagues and networks,
33 but also for reporting activities; information searching through the WWW has become common practice to

1
2 help with participatory research and advocacy work. *Two*, the Internet has been a means by which both the
3
4 NGO and the farmers with whom they work can become embedded in national and international movements.
5
6 For example, the change of YDA's website from a show-window-type of website into *blog-styled* website
7
8 reflects the vision of a shared and networked community. Furthermore, using email for internal
9
10 communication and external networking has proven to be beneficial for YDA and its beneficiary groups,
11
12 being involved in the rural movement both nationally and internationally. *Three*, despite this, the adoption
13
14 and use of technology is not a straightforward process. There is a gradual process of mastering, usually
15
16 known as 'social learning', or *pendampingan* (literally means 'companionship') through which staff who
17
18 use the Internet less intensively are accompanied by others who use it more intensively. This learning
19
20 process, apparently, does not stop at organisation level.
21
22
23
24

25
26 *Pendampingan* [(companionship)] is the best way [to work with our beneficiaries]. Unfortunately, our
27
28 NGOs colleagues, to our observation, are still minimal in sharing farmers' issues. Only few do it
29
30 properly. Whereas we know that there are abundant issues related to farmer and rural development out
31
32 there, at national and global scale ... like genetic engineering or [chemical] pesticide. ... That's why I
33
34 think we should help these [NGOs] to use the Internet more strategically in long-term perspective, and
35
36 not just for [organisations'] visibility and social status. Because, in many cases, although they can
37
38 access email and Internet [WWW] they still come to us, YDA, to ask questions to which the answers
39
40 can actually be found in the Internet very easily. I wonder why this happens (Muhammad Riza,
41
42 interview, 30/11/2005)

43
44 The YDA case above shows how the strategic use of the Internet for rural empowerment is structured and
45
46 routinised in the organisation. It also shows how, by creating space for social learning, both at organisation
47
48 and network level, familiarisation with the Internet becomes much easier for the organisations and networks.
49
50 The benefit of such technological implementation can also be enjoyed relatively more quickly, especially by
51
52 the beneficiaries they work with: the farmers.
53
54
55
56
57
58
59
60

5. Reflection and lessons learned

51
52 The survey on the use of the Internet in NGOs and the case study of YDA brings some points for reflection.
53
54 *Firstly*, the distinction between 'evolutionary' and 'revolutionary' views of technology¹³ is made. Although
55
56 the advent of Internet technology is considered to be revolutionary in that it fundamentally empowers the
57
58 role of NGOs in social movements as conceived by them in the survey (recall the discussion of Fig. 3 and
59
60 Fig 4.)¹⁴, the adoption of it seems to follow an evolutionary path. The explanation lies in the nature of the
social engagement of NGOs: using technology for cyberactivism is important (as theorised by McCaughey

1
2 & Ayers 2003), but it is only secondary to direct interaction and engagement with the beneficiaries. This is a
3
4 major point in the case of the NGO movement in the rural sector. Using the Internet for rural empowerment
5
6 is important, but the real reform and development takes place in the ‘off-line’ realm: the real engagement
7
8 with farmers and rural issues and activism –as clearly shown in the case of YDA. To take the reflection
9
10 further, on the one hand, the substitution effect of the Internet is not fully realised most probably because of
11
12 the problems of access availability. On the other hand, using the Internet as a communication tool does not
13
14 mean replacing ‘older’ technologies like the telephone or fax; neither does it mean swapping printed
15
16 bulletins for online newsletters for the dissemination of information and managing organisational networks,
17
18 precisely because the ‘older’ technologies are a mediation for a more ‘direct’ engagement and interaction
19
20 with beneficiaries and networks.
21
22
23
24

25 Secondly, the *adaptation of technology means building organisational capability*. From close observation of
26
27 Indonesian NGOs like YDA, this study suggests that what characterises the adoption and use of technology
28
29 like the Internet is the effort to build organisational capability, particularly to configure and reconfigure the
30
31 technology according to their needs –or in short building ‘configurational capability’¹⁵. At empirical level,
32
33 as shown both by the survey and case study, strategic use of the Internet in civil society means that the
34
35 technology is recognised as having the potential to be a platform for strategic activities (like campaigning,
36
37 civic engagement, fundraising, coalition building, etc). What matters in the use of the Internet in NGOs,
38
39 then, is whether or not these potentials can be realised and thus become an advantage for strategic use. It is
40
41 imperative that Indonesian NGOs build their capabilities in strategically using the Internet by configuring
42
43 and reconfiguring both technological and organisational properties. As shown in the case of YDA, the
44
45 development of these capabilities (and their aspects) depends on the provision of continuous learning in the
46
47 organisations and networks through social learning or ‘companionship’. Such a process is substantial for
48
49 change management issues in an information system strategy (Galliers 2004; 2007), for it addresses not only
50
51 strategies (and strategising) but also the unanticipated consequences of the strategic use of the Internet in
52
53 NGOs.
54
55
56
57
58
59

60 Thirdly, there are *two strategic uses of the Internet in rural NGOs: networking and empowerment of actors*.
Using the Internet is more than just applying technology for a particular purpose, more importantly, it is

1
2 about using technology to support the strategic and political work of NGOs (Surman & Reilly 2003;
3
4 Warkentin 2001). However, it should be noted, that the strategic realm of NGO –and other civil society
5
6 groups—movements actually stem from ‘traditional strengths’ of the civil society sector, like pertinent
7
8 issues and concerns, tactical social and political orientation, and distinctive activities (Deakin 2001; Keane
9
10 1998). Using the Internet does endorse these strengths and make potencies more realisable, but it does not
11
12 replace them. The data and the case presented here suggest that rural NGOs have potential –and can indeed
13
14 realise such potential—to use the Internet strategically and politically in promoting sustainable development
15
16 within rural sector reform. The potential does not lay mainly in the technology itself, but rather on the
17
18 strategic use of it. Indeed the Internet is highly effective in communicating about or campaigning for
19
20 sustainable development, but the essence of strategic use would be to use the technology as a platform to
21
22 mobilise resources, ideas and actions that put sustainable development into practice through advocacy or
23
24 development activities.
25
26
27
28
29

30 One particular strategic use revolves around the idea of *networking the movement*. While networking with
31
32 global civil society is undoubtedly important today, in order to take rural sector reform and development
33
34 onboard, networking with local and national organisations has never been as significant. Why is this? Social
35
36 movement is all about networking: of ideas, of awareness, of organisations, and of activism (Diani 2003;
37
38 McAdam 2003). It is thus important, from an NGO perspective, to channel the grand policies of rural
39
40 development (as may have been reinvigorated by the government) into local concerns and to widen the
41
42 direct involvement of organisations and their beneficiaries towards the implementation of such policies. In
43
44 this sense, networking is important not only to help expand and animate the networks themselves, but also to
45
46 facilitate the understanding about the complex nature of rural development issues in the local context.
47
48

49 Fuelled by the use of technological artefacts like the Internet, a network of social movement in a country
50
51 like Indonesia is no longer just an instrument for civil society to mobilise resources and action: it has
52
53 become a locus of power in society, a powerful fabric of social change. The Internet itself, working as driver
54
55 of these networks, as a direct consequence, should be viewed as more than just a communication tool.
56
57
58

59 Another strategic use of the Internet in rural NGOs is the *empowerment of beneficiaries*. The case of YDA
60
shows that through Internet use, NGOs can really empower farmers and rural communities by broadening

1
2 their perspectives towards various global issues that resonate with their local context. This way, Internet use
3
4 can help NGOs assist the farmers to create the opportunities for their self-sufficiency and self-dependency.
5
6 It helps NGOs encourage rural communities and develop their skills to engage in a more sustainable rural
7
8 development. Just like most Indonesian NGOs, which do not have the luxury of being able to afford an IT
9
10 specialist to help them use the technology, YDA chose social learning as strategy for Internet
11
12 implementation because it suits the way NGOs work. The case further suggests that organisations could
13
14 actually exploit and explore technology more effectively to improve operational management and provide
15
16 strategic management information to achieve their missions and goals. More importantly, the use of
17
18 technologies like the Internet can be used by NGOs to help their beneficiaries widen their perspectives about
19
20 global issues which affect the very context of their work: rural development. This is of paramount important
21
22 because a lot of problematic rural development issues at macro level need to be disentangled, and one way
23
24 to do so is to articulate the issues in local circumstance and to understand the implication in context (Kwa
25
26 2004; Raynolds 2000).
27
28
29

30
31
32 As a final reflection, there is one critical note about these strategic uses: the Internet and its use in
33
34 Indonesian NGOs cannot be seen as homogenous. As depicted in the context of this study in earlier section,
35
36 large parts of the population do not have access or capabilities to use the Internet. It is within this very
37
38 circumstance that NGOs need to 'translate' and 'interpret' un-adapted content of the Net. That it is true not
39
40 only for technicalities like language, also in terms of the 'context': global issues need to be rearticulated and
41
42 made to be understood within the local context. Only if such problems can be properly tackled, the use of
43
44 the Internet can significantly impact Indonesian NGOs' relationship with their national and international
45
46 partners and to empower their beneficiaries. This case also offers a lesson: adoption of the Internet is not
47
48 only affected by availability of access and determined by the characteristics of individuals adopting the
49
50 innovation (e.g. rural communities and farmers), rather, it has more to do with the constraints and
51
52 opportunities provided by those disseminating the innovation (e.g. rural NGOs).
53
54
55
56
57
58

59 **6. Concluding notes**

60 Reform and sustainable development in the rural sector, it is claimed, has been a major agenda of
Indonesia's *reformasi*, both by the government agencies and by non-government institutions. However,

1
2 NGOs have always been very critical of various policies in rural development imposed by the government,
3
4 mainly because NGOs view –from past experiences and future projections—that these policies are not in
5
6 favour of farmers and rural communities in the long term. While, for the government, reform generally
7
8 means ‘development’, for NGOs this implies ‘empowerment’. Consequently, while rural communities are
9
10 seen as ‘objects of development’ by the government (as in the notion of ‘food security’), they are ‘subject’
11
12 in the eyes of NGOs (as in ‘food sovereignty’). The implication of this is fundamental: rural sector reform is
13
14 not only about building rural communities through agricultural and rural development in the grand political
15
16 economy scenario as largely envisaged by the government. Rather, it is about reclaiming farmers’ and rural
17
18 communities’ social, political and economic rights to determine their own life; it concerns elevating
19
20 standards of living in rural areas; it involves protection of the rural environment; and it invokes rural sector
21
22 sustainability –objectives which are commonly shared among Indonesian NGOs, particularly those who
23
24 work in the rural sector.
25
26
27
28
29

30 It is important to take this into account when examining how rural NGOs use the Internet to help them to
31
32 take on board rural sector reform and sustainable development in their activism, because both their adoption
33
34 of the technology and their response towards the issue cannot be taken for granted.
35
36
37

38 Evidence here suggests that not only does the Internet use impact upon NGO’s performance in terms of
39
40 internal management, but more importantly, that such a use has contributed to the widening of
41
42 organisational perspectives, expansion of organisational networks and thus the increase of organisational
43
44 influences in the society, including in the furtherance of rural sector reform and development. In fact, this
45
46 technological use can also, to some extent, be seen to be part of the strategy of Indonesian rural NGOs to
47
48 build critical views towards policies and practices of rural development through their engagement with
49
50 various civic groups, including farmers.
51
52
53

54 While this suggests strongly that the Internet has become a significant means for NGOs and their beneficiary
55
56 groups to actively participate in social transformation, direct engagement and interaction with the
57
58 beneficiaries is irreplaceable, for the fabric of social change is, in the context of Indonesia, often localised in
59
60 the *offline* world. Although such a change may also be initiated in the *online* world, as the Internet has
become a sphere to in which to exist and to act (and thus ‘cyberspace’ –a ‘spatial’ dimension in which life

1
2 exists (Graham 1999)), for rural NGOs this may not be always the first focus. It is not because NGOs do not
3
4 understand the importance of technology, but because technological use is secondary to the real engagement
5
6 with rural communities.
7

8
9
10 Nevertheless, working largely in local contexts, while maintaining global networks, has made Indonesian
11
12 rural NGOs, to some extent, able to spot increasing disillusionment about rural sector reform and
13
14 development, especially when more a global perspective is taken (e.g. Kwa 2004; Raynolds 2000). Being
15
16 able to address adequate criticism towards rural sector development (as imposed by the government in
17
18 favour of more global control) is not always easy for many Indonesian rural NGOs. This is why, in addition
19
20 to engaging in global civil society activism, national networking among Indonesian NGOs remains
21
22 important not only for building and enhancing the capacity of social movements to promote sustainable
23
24 development but also because it is the fabric of social change in itself (as also concluded in Nugroho 2009).
25
26

27
28 Finally, there are some strategic areas in NGO activism where the Internet can, and has been, used
29
30 strategically and politically to advance NGO involvement in rural sector reform and sustainable
31
32 development. However, there is a real need for further thinking and reflection focusing on what can actually
33
34 be done with the strategic implementation of the Internet within organisations working in rural issues
35
36 generally. (*)
37
38

39
40
41 *Words count: 8,859*
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

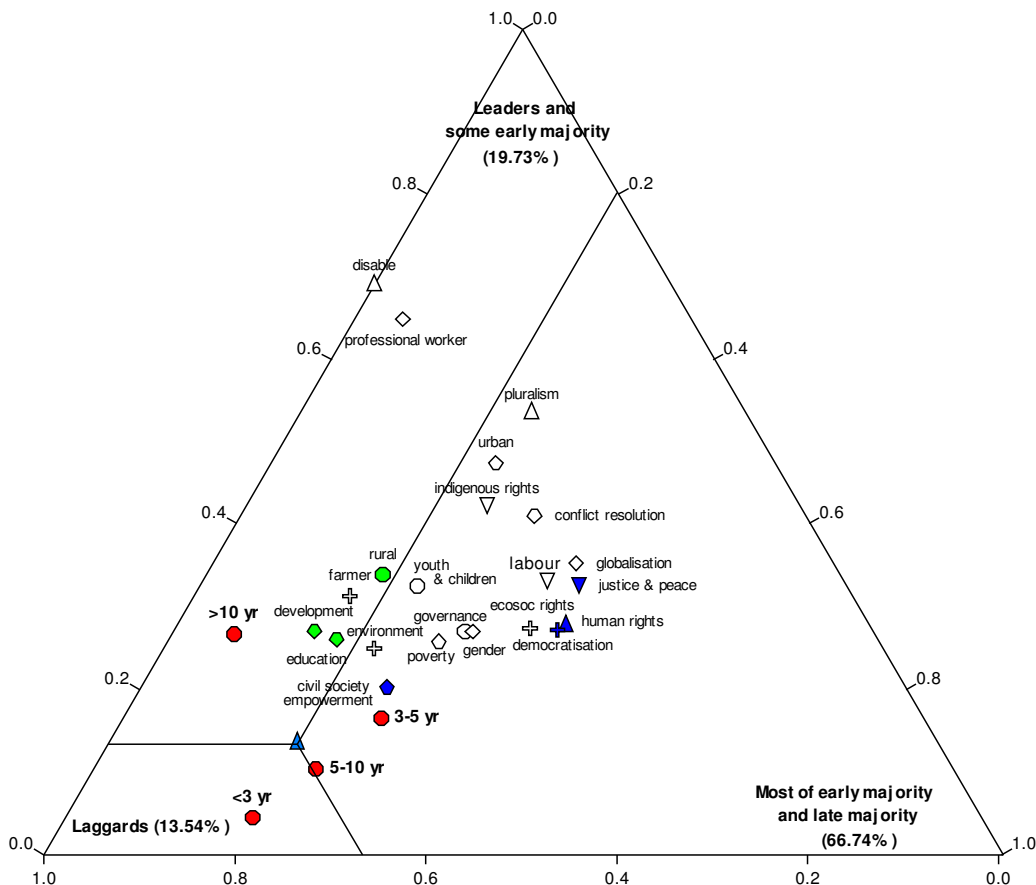


Fig 1. Issues and concerns of each adopter category
N=268. Latent Class Analysis. BIC(LL)=5407.792; NPar=94; L²=4214.830; df=127; p<0.0001; and Class.Err=2.6% (See Appendix). This figure appears in author's earlier works(Nugroho 2007a)

why does your organisation use the internet?

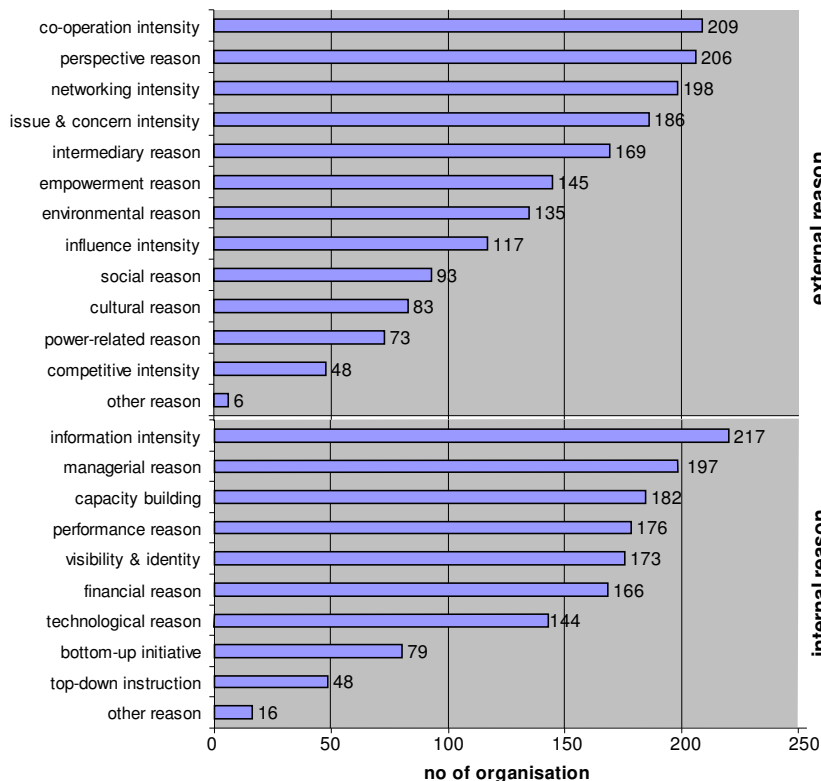


Fig 2. Internal and external drivers for Internet adoption in NGOs
N=268, multiple responses possible. This figure appears in author's earlier works(Nugroho 2007a)

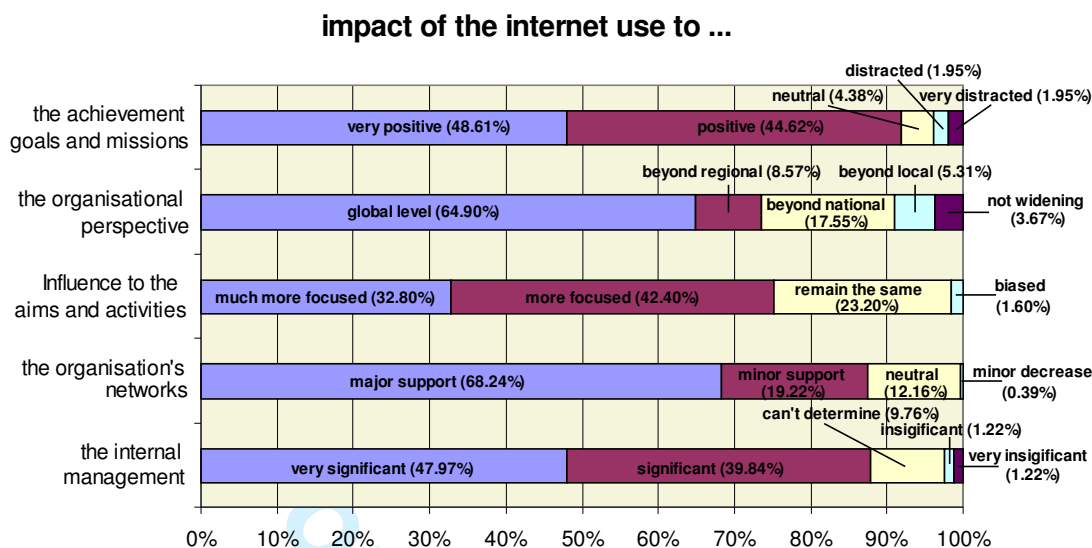


Fig 3. Impact of the Internet use in Indonesian NGOs
N=268, single response, Likert-scale. .This figure appears in author's earlier works(Nugroho 2007a)

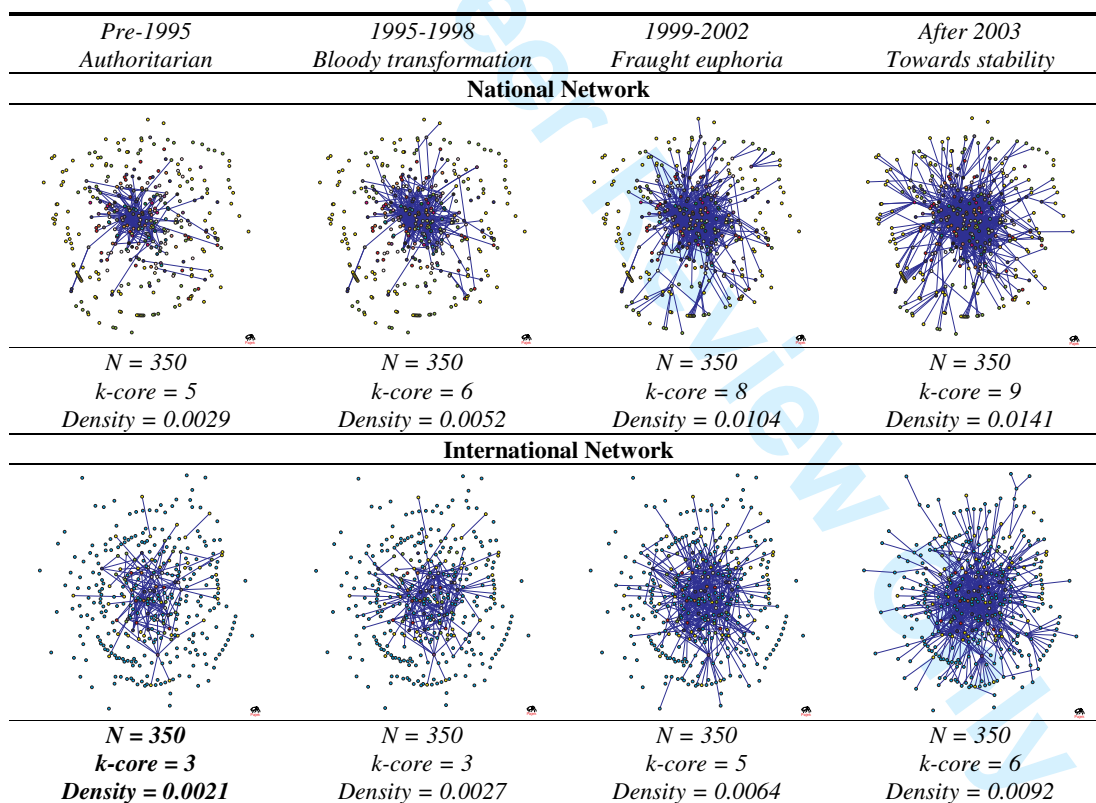


Fig 4. Expansion of Indonesian CSOs Networks
N-network=350, all nodes depicted across period, links represent "join action", data collected 2005-6
 Source: This figure appears in Nugroho (2009); the periodisation and the discussion of the international network appears in Nugroho and Tampubolon (2008); data and analysis rendered for this figure is based on Nugroho (2007a).

Box –YDA and Advokasi

About the organisation. Yayasan Duta Awam (YDA), www.dutaawam.org, set up in Solo, Central Java in 1996, is a NGO working on the issue of farmers advocacy and civil society empowerment. Working with 16 full-timers, YDA aims particularly to empower the farmers so that they can advocate themselves independently in the future, when agricultural and rural development issues are projected to escalate politically in Indonesia. This goal is to be achieved through three main strategic activities: participatory research and monitoring, stakeholder dialogue forums and grassroots media. As a "Farmers' Institute for Advocacy" YDA has formulated its strategy to empower and increase farmers' capacity through educations, trainings and mobilisation; advocacy; development of public discourse; database; and capacity building for institutions and organisations. To help running the organisation, YDA has been using the internet since 1998, when Internet was firstly introduced to public in Solo and was probably the first NGO in the area which adopted the Internet.

Internet use for communication and networking. For YDA, the main reason for using the Internet was plain: the increasing need for up-to-date information, both for the organisation and mainly for its beneficiaries, namely farmers and rural communities. As a part of the organisation's strategy, the Internet is introduced to YDA's staff, networks, and their beneficiaries: local farmers. Not only is the farmer's bulletin "Advokasi" made available online, but despite difficulties, YDA has also endeavoured to pioneer online communities for farmers and its NGO networks. The result of YDA's engagement with the Internet sometimes goes beyond what can be imagined. It would certainly be simplifying to claim that farmers' broadened understanding about global political-economy issues surrounding agricultural development and policy is the result from YDA's (and its network's) use of the Internet. But certainly it is difficult, if not impossible, for YDA and its networks to keep updated with the latest development in agricultural development policy, including the global issues surrounding it, if they do not adopt the Internet.

Building farmers capacity. To take a case, Tukimin is an ordinary farmer from Kiram Village, Banjar, and a regular reader of *Advokasi*. He once confidently argued with an Asian Development Bank (ADB)'s project executor when he saw the mismatch between the planning and the actual project undertaking during CERD project. He insisted that there should be participatory approach in the project instead of top-down implementation, because "This project is being financed by the government's debt to ADB, and it is us, the people, who will have to pay it back", replying against the statement of an ADB's engineer that the project was possible merely because of ADB's fund (Advokasi 2007:12). Using the Internet for dissemination of awareness and broadening perspectives, YDA helps farmers like Tukimin to understand the direct impact of globalisation in their local context.



"After queuing for oil, now, queuing for national poverty"; "Public participatory advocacy in Riau: Advocacy was successful and not anarchic"; "Tip for planting coffee and rice"; "Participatory development in Talang Bunut"; "Is state still there for the poor?"

Source: Farmer's bulletin *Advokasi*, Edition 21, <http://www.dutaawam.org/> (accessed 15 May 2007)

For rural NGOs like YDA, the Internet can be used as more than a mere communication tool. More importantly, it could be an important means for empowerment: to build farmer's capacity as an active citizen who has the voice and the rights to be involved in the very process of rural development where they belong –which is the heart of reform in rural sector in Indonesia. (*)

Source: Survey, observation and interview with YDA's Executive Director, Muhammad Riza (30/11/2005)

APPENDIX

Analysing Indonesian NGO’s issues and concerns and adoption pattern using MIMIC-LCA

The multiple indicators multiple causes (MIMIC) latent class analysis (LCA) model is a classification method when researchers cannot find a “gold standard” to classify participants. The MIMIC-LCA model includes features of a typical LCA model and introduces a new relation between the latent class and covariates (MacCutcheon 1987; Magidson & Vermunt 2002; Vermunt & Magidson 2002).

In this case, the covariates are: length of the Internet use (*intsinc*), PC use (*pcsinc*), IT expenditure as percentage of annual turnover (*itexpproc*), and IT expenditure in nominal (*itexpnom*); while variables being estimated are the issues and concerns data: *ic_env* (environment), *ic_glob* (globalisation), *ic_rural* (rural), *ic_urban* (urban), *ic_devp* (development), *ic_hrights* (human rights), *ic_justpec* (justice and peace), *ic_democ* (democratisation), *ic_gender* (gender), *ic_child* (children and youth), *ic_poverty* (poverty alleviation), *ic_educ* (education), *ic_disabl* (disable), *ic_labour* (labour and trade union), *ic_farmer* (farmer), *ic_prof* (professional worker), *ic_gov* (governance), *ic_csemp* (civil society empowerment), *ic_confres* (conflict resolution), *ic_plural* (pluralism), *ic_idigns* (indigenous rights), *ic_ecosoc* (economic, cultural and social rights), *ic_oth* (other issues). The results from multiple indicators multiple causes (MIMIC) latent class analysis (LCA) models and the profile are presented below.

The goodness of fit of the MIMIC model

Model	LL	BIC(LL)	Npar	L ²	Df	p-value	Class. Err.
2 class	2553.67	5420.4256	58	4421.7976	163	1.8e-811	0.0153
3 class	2450.18	5407.792	94	4214.8303	127	1.3e-794	0.0258
4 class	2363.57	5428.8913	130	4041.5957	91	1.7e-786	0.0384

The profile of indicators

	Class 1	Class 2	Class 3		Class 1	Class 2	Class 3
Class Size	0.6674	0.1973	0.1354	Class Size	0.6674	0.1973	0.1354
Indicators				Indicators			
ic_env				ic_educ			
0	0.5716	0.4027	0.0051	0	0.5788	0.559	0.0427
1	0.4284	0.5973	0.9949	1	0.4212	0.441	0.9573
Mean	0.4284	0.5973	0.9949	Mean	0.4212	0.441	0.9573
ic_glob				ic_disabl			
0	0.8782	0.4172	0.2107	0	0.9661	0.9995	0.6334
1	0.1218	0.5828	0.7893	1	0.0339	0.0005	0.3666
Mean	0.1218	0.5828	0.7893	Mean	0.0339	0.0005	0.3666
ic_rural				ic_labour			
0	0.7605	0.6886	0.1612	0	0.8936	0.5822	0.4291
1	0.2395	0.3114	0.8388	1	0.1064	0.4178	0.5709
Mean	0.2395	0.3114	0.8388	Mean	0.1064	0.4178	0.5709
ic_urban				ic_farmer			
0	0.905	0.7422	0.2401	0	0.6726	0.6555	0.0413
1	0.095	0.2578	0.7599	1	0.3274	0.3445	0.9587
Mean	0.095	0.2578	0.7599	Mean	0.3274	0.3445	0.9587
ic_devp				ic_prof			
0	0.5659	0.6272	0.0066	0	0.959	0.9764	0.5684
1	0.4341	0.3728	0.9934	1	0.041	0.0236	0.4316
Mean	0.4341	0.3728	0.9934	Mean	0.041	0.0236	0.4316
ic_hrights				ic_gov			
0	0.7764	0.0299	0.0399	0	0.8184	0.5605	0.4299
1	0.2236	0.9701	0.9601	1	0.1816	0.4395	0.5701
Mean	0.2236	0.9701	0.9601	Mean	0.1816	0.4395	0.5701
ic_justpec				ic_csemp			
0	0.8419	0.2439	0.074	0	0.5163	0.2241	0.1035
1	0.1581	0.7561	0.926	1	0.4837	0.7759	0.8965
Mean	0.1581	0.7561	0.926	Mean	0.4837	0.7759	0.8965
ic_democ				ic_confres			
0	0.782	0.1033	0.1059	0	0.8924	0.6059	0.2333
1	0.218	0.8967	0.8941	1	0.1076	0.3941	0.7667
Mean	0.218	0.8967	0.8941	Mean	0.1076	0.3941	0.7667
ic_gender				ic_plural			
0	0.711	0.2742	0.0735	0	0.9312	0.7507	0.1986
1	0.289	0.7258	0.9265	1	0.0688	0.2493	0.8014
Mean	0.289	0.7258	0.9265	Mean	0.0688	0.2493	0.8014
ic_child				ic_idigns			
0	0.7512	0.5723	0.1091	0	0.9032	0.7488	0.3728
1	0.2488	0.4277	0.8909	1	0.0968	0.2512	0.6272
Mean	0.2488	0.4277	0.8909	Mean	0.0968	0.2512	0.6272
ic_poverty				ic_ecosoc			
0	0.6424	0.2548	0.0053	0	0.7567	0.1437	0.0716
1	0.3576	0.7452	0.9947	1	0.2433	0.8563	0.9284
Mean	0.3576	0.7452	0.9947	Mean	0.2433	0.8563	0.9284

	Class 1	Class 2	Class 3
Class Size	0.6674	0.1973	0.1354
Covariates			
pcsinc			
3-5 yr	0.2305	0.3224	0.1653
5-10 yr	0.3106	0.4337	0.3107
<3 yr	0.148	0.0267	0.0996
>10 yr	0.2255	0.1622	0.3233
Mean	0.0853	0.0549	0.101
intsinc			
3-5 yr	0.2298	0.3716	0.3324
5-10 yr	0.2875	0.3399	0.2267
<3 yr	0.2261	0.1974	0.0674
>10 yr	0.0679	0.022	0.1346
Mean	0.1887	0.0691	0.2389
itexpproc			
25-50%	0.1685	0.2757	0.1047
50-75%	0.0135	0.023	0.0673
<25%	0.6418	0.701	0.5607
>75%	0.0068	0	0
Mean	0.1694	0.0003	0.2673
itexpnom			
100-500m	0.0262	0.0716	0.068
50-100m	0.1121	0.1033	0.065
500m-1b	0.0068	0.046	0
<50m	0.6645	0.6891	0.566
>1b	0.0068	0	0
Mean	0.1836	0.0899	0.301

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1 Interview: Muhammad Riza (30/11/05); Indro Suroño (3/12/05).

2 Interview: Antonius Waspotrianto (28/10/05); Indro Suroño and Agung Prawoto (3/12/05); Yulia I. Sari (19/12/05).

3 AOA, which is currently part of the new WTO trade round launched in November 2001, has elements that are likely to be problematic for Indonesia, e.g. (i) another round of reduction in tariffs; (ii) possible measures that could ensure State Trading Enterprises (STE), such as BULOG (Indonesia's STE for rice and other sensitive commodities) from having import monopoly powers; (iii) very little, or no real disciplines on *Domestic Supports*, e.g. no overall caps or limits on the *green box spending* is being discussed for the developed countries (which means that dumping of cheap agriculture produce by the US and EU into developing countries will continue, and could even increase); and (iv) *Special and Differential Treatment* for developing countries under discussion, e.g. the concept of Special Products and a Special Safeguard Mechanism (spearheaded by Indonesia) is extremely inadequate since these are merely band-aid measures. Food security and rural livelihoods cannot be limited to a small number of crops but should encompass the broad range of products small farmer produce. See (Kwa 2004).

4 See Appendix for a more detailed account. However, it should be noted that in the early days of the Internet use in Indonesian NGOs, it was advocacy organisations that pioneered the use of the Internet for pushing social movement. An interview with Wahyu Susilo of INFID (1/12/05) reveals the birth of *Nusanet* initiated by INFID as the first secure communication exchange platform for civil society activists. *Nusanet* played an undeniably important role for Indonesian CSOs in establishing links with their partners across the archipelago in order to fight for democratisation and across the globe for mobilising global solidarity, especially in overthrowing Soeharto's regime.

5 Interview with Indro Suroño (3/12/05). Agung Prawoto (3/12/05); Muhammad Riza (30/11/05); Antonius Waspotrianto (28/10/05)

6 Interview with Muhammad Riza (30/11/05); Antonius Waspotrianto (28/10/05); Agung Prawoto (3/12/05)

7 Onno W. Purbo's blog <http://asiablogging.com/blog/221/role-of-ict-in-rural-development/>

8 Interview with Indro Suroño (3/12/05); Muhammad Riza (30/11/05); Antonius Waspotrianto (28/10/05)

9 This section is based on the survey and interview with YDA's Executive Director, Muhammad Riza (30/11/05), and also appears in Nugroho (2007b).

10 *SatuDunia* is a newly established Indonesian node of the global network OneWorld.net (www.oneworld.net), which was established since 1995 and currently has more than 1,600 partners internationally. *SatuDunia* is an initiative of HIVOS, Yayasan Jaring and OneWorld UK and was officially set-up on 16 December 06. See <http://www.satudunia.net/?q=node/238> (viewed 2 April 2009).

11 Recall the integration of rural sector within WTO regime through AOA, as outlined in Section 2 above.

12 See <http://agrodev.multiply.com> and <http://indosl.multiply.com>. The mailing list is <http://groups.yahoo.com/group/agrodev/>

13 See, for example, Freeman and Perez (1998).

14 This points are also observed by some scholars (e.g. Harney & Olivia 2003; Hill 2003; Hill & Sen 2005; Lim 2003b)

15 'Configurational capability' is defined here as organisation's capacity and ability to arrange their use of the Internet by modifying its settings and configurations, including hardware and software, and at the same time, also modifying organisation's routines such as working arrangements and internal policies. There are four aspects of *configurational capabilities* observed when NGOs implement the Internet: (i) cognitive (configuring distributed knowledge of different kinds), (ii) organisational (configuring distributed actors and other repositories of knowledge and know-how), (iii) design (configuring functional features and solutions), and (iv) affective (configuring motivation, shared value, issues and concerns). The first three aspects were also observed by scholars who also found similar capabilities when researching low-tech companies in PILOT project (Bender 2005; 2006; Bender & Laestadius 2005; Hirsch-Kreinsen *et al.* 2005). The affective aspect, which may have escaped their attention because of the nature of the organisations being studied, appears very strongly in this study. These aspects together build the organisation's configurational capabilities.

REFERENCES

- Advokasi (2007) *Fakta CERDP (The facts of CERDP)*. Advokasi, Issue No. 21
- Audit, D. N. (unknown) Kaum tani menggangu setan-setan desa: Laporan singkat hasil riset mengenai keadaan kaum tani dan gerakan tani Djawa Barat (Indonesian). Report. Jakarta: Yayasan Pembaruan.
- APJII (2003) Statistics of APJII. APJII (Indonesian Internet Service Providers Association), <http://www.apjii.or.id/dokumentasi/statistik.php?lang=en>, viewed 16 February 2003.
- _____ (2007) Statistics of APJII. APJII (Indonesian Internet Service Providers Association), <http://www.apjii.or.id/dokumentasi/statistik.php?lang=ind>, viewed 5 August 2008.
- Arce, A., Villareal, M. & De-Vries, P. (1994) 'The social construction of rural development: Discourses, practices and power', in 'Rethinking social development: Theory, research and practice', ed. D. Booth, Longman, London, pp.
- Batagelj, V. & Mrvar, A. (2003) How to Analyze Large Networks with Pajek. *Workshop at SUNBELT XXIII*, Cancún, México.
- Bender, G. (2005) 'Innovation in low-tech companies. Towards a conceptualisation of non-science-based innovation', in 'Low-tech innovation in the knowledge economy', ed. H. Hirsch-Kreinsen, D. Jacobson & S. Laestadius, P. Lang, Frankfurt, pp. 85-98.
- _____ (2006) Peculiarities and Relevance of Non-Research-Intensive Industries in the Knowledge-Based Economy Report. Report. *Final Report of the Project "Policy and Innovation in Low-Tech-Knowledge Formation, Employment & Growth Contributions of the 'Old Economy' Industries in Europe – PILOT" Framework Programme 5, Key Action "Improving the Socio-economic Knowledge Base" (HPSE-CT-2002-00112)*. Dortmund: University of Dortmund (UDTM.ESS.TS).
- Bender, G. & Laestadius, S. (2005) 'Non-science based innovativeness. On capabilities relevant to generate profitable novelty', *Journal for Perspectives on Economic Political and Social Integration. Special Edition*, vol. XI(1-2), pp. 123-170.
- Billah, M. (1995) 'Peran ornop dalam proses demokratisasi yang berkedaulatan rakyat (Roles of NGO in the people's sovereignty-oriented democratisation process)', in 'Agenda LSM menyongsong tahun 2000 ([Indonesian]NGO's agenda welcoming the year 2000)', ed. R. Ibrahim, LP3ES, Jakarta, pp.
- Boeke, J. H. (1952) 'Agrarian Reforms in the Far East', *The American Journal of Sociology*, vol. 57(4), pp. 315-324.
- Booth, A. (1992) 'Income distribution and poverty', in 'The oil boom and after: Indonesian economic policy and performance in the Suharto era', ed. A. Booth, Oxford University Press, Singapore, pp. 323-362.
- BPS (2008) Population 15 years of age and over who worked by main industry 2004, 2005, 2006, 2007 and 2008. Jakarta: Indonesian National Statistics Bureau (BPS), online data available at <http://www.bps.go.id/sector/employ/table2.shtml>, viewed 28 March 2009.
- Castells, M. (1996) *The Rise of Network Society. The Information Age – Economy, Society, and Culture – Volume I*, Blackwell, Oxford.
- _____ (1999) Information technology, globalization and social development. Report. *UNRISD Discussion Paper No. 114*. UNRISD.
- Coombs, R. & Hull, R. (1996) 'The Politics of IT Strategy and Development in Organizations', in 'Information and Communication Technologies: Visions and Realities', ed. W.H. Dutton, Oxford University Press, New York, pp. 159-176.
- Crossley, N. (2002) *Making Sense of Social Movement*, Open University Press, Buckingham Philadelphia.
- Danermark, B., Ekstrom, M., Jakobsen, L. & Karlsson, J. C. (2002) *Explaining Society. Critical Realism in the Social Sciences*, Routledge, London.
- Daorueng, P. (2002) *Indonesia: Rice woes pushing economy to food crisis*. Terra Viva, Issue No. Special Edition for World Food Summit
- Deakin, N. (2001) *In search of civil society*, Palgrave, New York.
- Della-Porta, D. & Diani, M. (2006) *Social Movements: An Introduction*, Blackwell, 2nd Edition, Oxford.
- Diani, M. (2003) 'Social Movements, Contentious Actions and Social Networks. From Methapor to Substance?' in 'Social Movements and Networks: Relational Approaches to Collective Action', ed. M. Diani & D. McAdam, Oxford University Press, New York, pp. 1-20.
- Dutton, W. H. (1999) *Society on the Line: Information Politics in the Digital Age*, Oxford University Press, New York.
- _____ (2004) Social transformation in an Information Society: Rethinking access to you and the world. Report. *UNESCO Publications for the World Summit on the Information Society*. Paris: UNESCO.
- Eisenhardt, K. M. (1989) 'Building theories from case study research', *Academy of Management Review*, vol. 14, pp. 532-550.
- Eldridge, P. J. (1995) *Non-Government Organizations and democratic participation in Indonesia* OUP South East Asia, Kuala Lumpur.
- Fakih, M. (1996) *Masyarakat sipil untuk transformasi sosial: Pergolakan ideologi LSM Indonesia (Civil society for social transformation. Ideological dispute among Indonesian NGOs)*, Pustaka Pelajar, Yogyakarta.
- Freeman, C. & Perez, C. (1998) 'Structural crises of adjustment, business cycles and investment behaviour.' in 'Technical change and economic theory', ed. G. Dosi, C. Freeman, R. Nelson, G. Silverberg & L. Soete, Frances Pinter, London, pp. 38-61.

- 1
2 Galliers, R. D. (2004) 'Reflections on Information Systems Strategizing', in 'The Social Study of Information and
3 Communication Technology: Innovation, Actors, and Contexts', ed. C. Avgerou, C. Ciborra & F. Land, Oxford
4 University Press, Oxford, pp. 231-262.
5 _____ (2007) 'On Confronting Some of the Myths of Information Systems Strategy Discourse', in 'The Oxford
6 Handbook of Information and Communication Technologies', ed. R.E. Mansell, C. Avgerou & D. Quah,
7 Oxford University Press, London, pp.
- 8 Ganie-Rochman, M. (2002) *An uphill struggle: Advocacy NGOs under Soeharto's new order*, Lab Sosio FISIP UI,
9 Jakarta.
- 10 Gilbert, N. (1992) *Researching social life*, SAGE, London.
- 11 Graham, G. (1999) *The Internet: A Philosophical inquiry*, Routledge, London.
- 12 Hadad, I. (1983) 'Development and community self-help in Indonesia', *Prisma*, vol. 12(2), pp. 3-20.
- 13 Hadiwinata, B. S. (2003) *The Politics of NGOs in Indonesia. Developing Democracy and Managing a Movement*,
14 Routledge Curzon, London, New York.
- 15 Harney, S. & Olivia, R. (2003) Civil Society and Civil Society Organizations in Indonesia. Report. Geneva:
16 International Labour Office (ILO).
- 17 Hart, G. (1986) *Power, labour and livelihood: Process of change in rural Java*, University of California Press,
18 Berkeley.
- 19 Hikam, M. (1999) 'Non-Governmental Organisations and the empowerment of civil society', in 'Indonesia: The
20 challenge of change', ed. R. Baker, St. Martin's Press, New York, pp.
- 21 Hill, D. T. (2003) 'Communication for a New Democracy. Indonesia's First Online Elections', *The Pacific Review*, vol.
22 16(4), pp. 525-548.
- 23 Hill, D. T. & Sen, K. (2000) *Media, Culture and Politics in Indonesia*, Oxford University Press, Oxford.
24 _____ (2005) *The Internet in Indonesia's New Democracy*, Routledge, London and New York.
- 25 Hill, H. (2000) 'Indonesia: The Strange and Sudden Death of a Tiger Economy', *Oxford Development Studies*, 1360-
26 0818, vol. 28 (2), pp. 117-138.
- 27 Hirsch-Kreinsen, H., Jacobson, D. & Robertson, P. (2005) "Low-Tech" Industries: Innovativeness and Development
28 Perspectives Report. Report. *A Summary of a European Research Project PILOT Project Consortium*.
29 Dortmund: PILOT Project Consortium.
- 30 Holland, J. & Henriot, P. (2002) *Analisis Sosial & Refleksi Teologis (Social Analysis & Theological Reflection)*,
31 Kanisius, Yogyakarta.
- 32 James, J. (2006) *Information technology and development*, Routledge, London.
- 33 Keane, J. (1998) *Civil society: Old images, new visions*, Stanford University Press, Stanford.
- 34 Kwa, A. (2004) Indonesia and the WTO Agriculture Negotiations. Report. Bangkok: Focus on the Global South.
- 35 Laelasari, E. (2004) Community Access Point in rural area: The case of Indonesia. *6th Co-Exist-SEA Workshop*. Kuala
36 Lumpur, Malaysia.
- 37 Liddle, W. R. (1985) 'Suharto's Indonesia: Personal rule and political institutions', *Pacific Affairs*, vol. 58(1), pp. 68-
38 90.
- 39 Lim, M. (2002) 'Cyber-civic Space. From Panopticon to Pandemonium?' *International Development and Planning*
40 *Review*, vol. 24(4), pp. 383-400.
- 41 _____ (2003a) 'From Real to Virtual (and Back again): The Internet and Public Sphere in Indonesia', in 'Asia
42 Encounters the Internet', ed. K.C. Ho, R. Kluver & K. Yang, Routledge, London, pp. 113-128.
- 43 _____ (2003b) 'The Internet, Social Networks and Reform in Indonesia', in 'Contesting Media Power. Alternative
44 Media in a Networked World', ed. N. Couldry & J. Curran, Rowman & Littlefield, Oxford, pp. 273-288.
- 45 MacCutcheon, A. L. (1987) *Latent Class Analysis*, Sage, London.
- 46 Magidson, J. & Vermunt, J. (2002) 'Latent class models for clustering: A comparison with K-means', *Canadian Journal*
47 *of Marketing Research*, vol. 20, pp. 36-43.
- 48 McAdam, D. (2003) 'Beyond Structural Analysis. Toward a More Dynamic Understanding of Social Movements', in
49 'Social Movements and Networks. Relational Approaches to Collective Action', ed. M. Diani & D. McAdam,
50 Oxford University Press, New York, pp. 281-298.
- 51 McCarthy, P. (2002) A thousand flowers blooming: Indonesian civil society in the post-New Order era. Report. *Paper*
52 *prepared by Civil Society Consultant of the World Bank Office in Indonesia*. Ottawa, Jakarta: The World Bank.
- 53 McCaughey, M. & Ayers, M. D. (Eds.) (2003) *Cyberactivism*, New York: Routledge.
- 54 McConnell, S. (2000) 'A champion in our midst: Lessons learned from the impacts of NGOs' use of the Internet',
55 *Electronic Journal on Information Systems in Developing Countries*, vol. 2(5), pp. 1-15.
- 56 Newell, S., Huang, J. C., Galliers, R. D. & Pan, S. L. (2003) 'Implementing Enterprise Resource Planning and
57 Knowledge Management Systems in tandem: Fostering efficiency and innovation complementarity',
58 *Information & Organization*, vol. 13, pp. 25-52.
- 59 Nugroho, Y. (2007a) *Does the Internet transform civil society: The case of civil society organisations in Indonesia*.
60 PhD thesis. Manchester: The University of Manchester.
- _____ (2007b) Spreading the word, broadening perspectives: Internet, NGOs and globalisation discourse in
Indonesia. *International Convention of Asian Scholars (ICAS) - 5*. Kuala Lumpur.

- 1
2 _____ (2009) Indonesian CSO network: Instrumentum or locus of power? *Continuity and Change: (Re)conceptualising power in South-East Asia*. Centre for Research in Arts, Social Sciences and Humanities (CRASSH), University of Cambridge.
- 3
4
5 Nugroho, Y. & Tampubolon, G. (2008) 'Network Dynamics in the Transition to Democracy: Mapping Global Networks
6 of Contemporary Indonesian Civil Society', *Sociological Research Online*, vol. 13(5
7 <<http://www.socresonline.org.uk/13/5/3.html>>).
- 8 Purbo, O. W. (1996) Internet utilization in Indonesia. Report. *Computer Network Research Group*. Bandung: Institute
9 of Technology Bandung.
- 10 Raynolds, L. T. (2000) 'Re-embedding global agriculture: The international organic and fair trade movements',
11 *Agriculture and Human Values*, vol. 17(3), pp. 297-309.
- 12 _____ (2002) 'Consumer/Producer Links in Fair Trade Coffee Networks', *Sociologia Ruralis*, vol. 42(4), pp. 404–
13 424.
- 14 Rogers, E. M. (1995) *Diffusion of Innovations* Free Press. Fourth Edition, New York.
- 15 _____ (2003) *Diffusion of Innovations*, Free Press. Fifth Edition, New York, NY.
- 16 Sangkoyo, H. (1999) 'Limits to order: The internal logic of instability in the Post-Suharto era', in 'Post-Suharto
17 Indonesia: Renewal or chaos?' ed. G. Forrester, Institute of Southeast Asian Studies, Singapore, pp. 170-180.
- 18 Sinaga, K. (1994) *NGOs in Indonesia: A study of the role of Non-Governmental Organizations in the development
19 process* PhD thesis. Saarbrücken: Bielefeld University.
- 20 Stake, R. E. (1995) *The art of case study research: Perspectives on practice*, Sage, Thousand Oaks, CA.
- 21 Surman, M. & Reilly, K. (2003) Appropriating the Internet for Social Change. Towards the Strategic Use of Networked
22 Technologies by Transnational Civil Society Organisations. Report.: Social Science Research Council.
- 23 Tjondronegoro, S. M. P. (1984) *Social organisation and planned development in rural Java*, Oxford University Press,
24 Singapore.
- 25 Uhlin, A. (1997) *Indonesia and the Third Wave of Democratisation. The Indonesian Pro-Democracy Movement in a
26 Changing World*, Curzon, Surrey.
- 27 Vermunt, J. & Magidson, J. (2002) 'Latent class cluster analysis', in 'Applied latent class models', ed. J. Hagenaars & A.
28 McCutcheon, Cambridge University Press, pp. 89-106.
- 29 Warkentin, C. (2001) *Reshaping World Politics. NGOs, the Internet, and Global Civil Society*, Rowman & Littlefield,
30 Boston.
- 31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

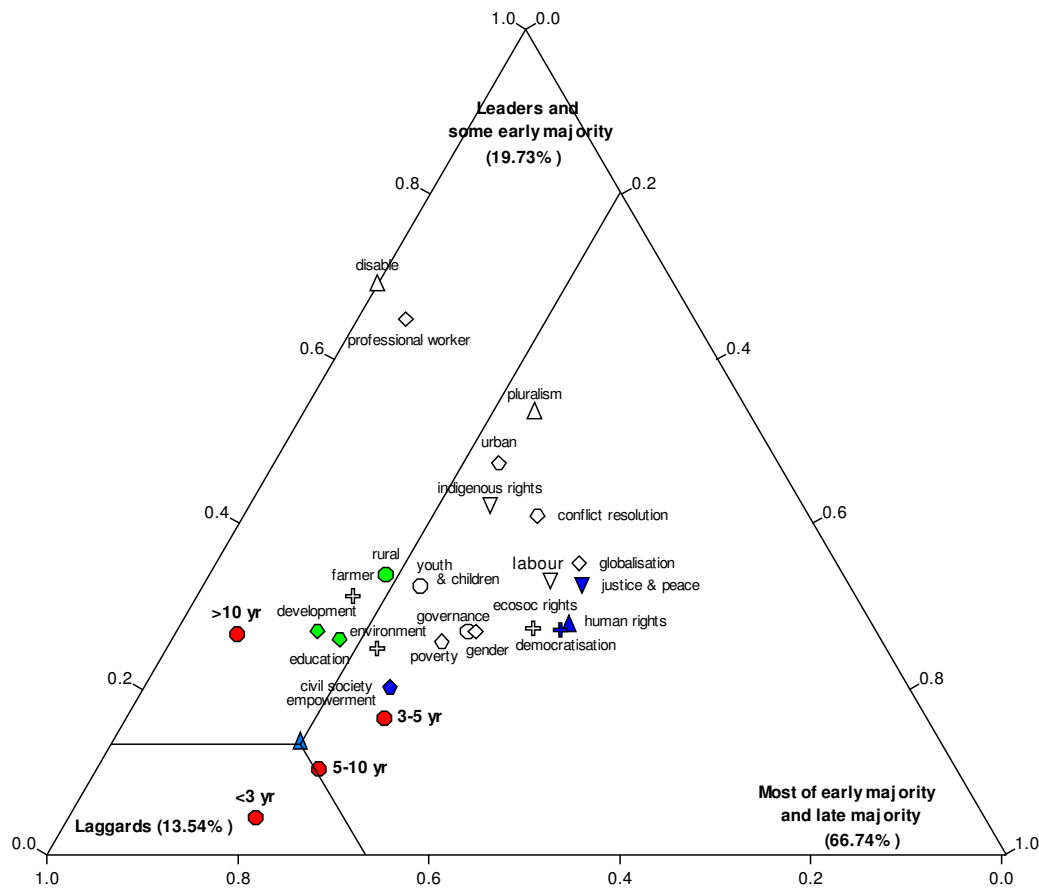


Fig 1. Issues and concerns of each adopter category
N=268. Latent Class Analysis. BIC(LL)=5407.792; NPar=94; L²=4214.830; df=127; p<0.0001; and Class.Err=2.6% (See Appendix). This figure appears in author's earlier works(Nugroho 2007)

why does your organisation use the internet?

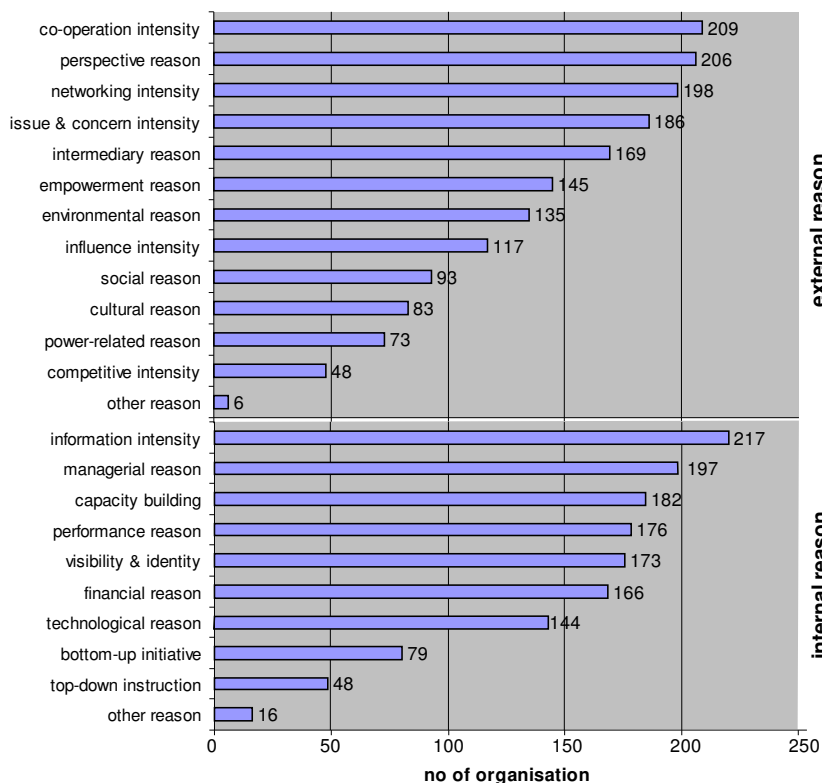


Fig 2. Internal and external drivers for Internet adoption in NGOs
N=268, multiple responses possible. This figure appears in author's earlier works(Nugroho 2007)

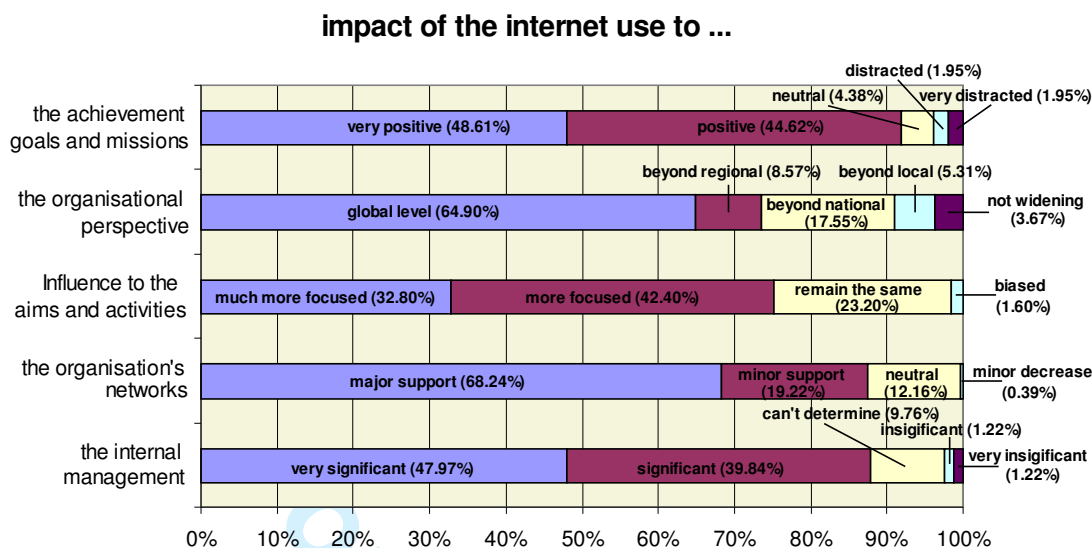


Fig 3. Impact of the Internet use in Indonesian NGOs
N=268, single response, Likert-scale. .This figure appears in author's earlier works(Nugroho 2007)

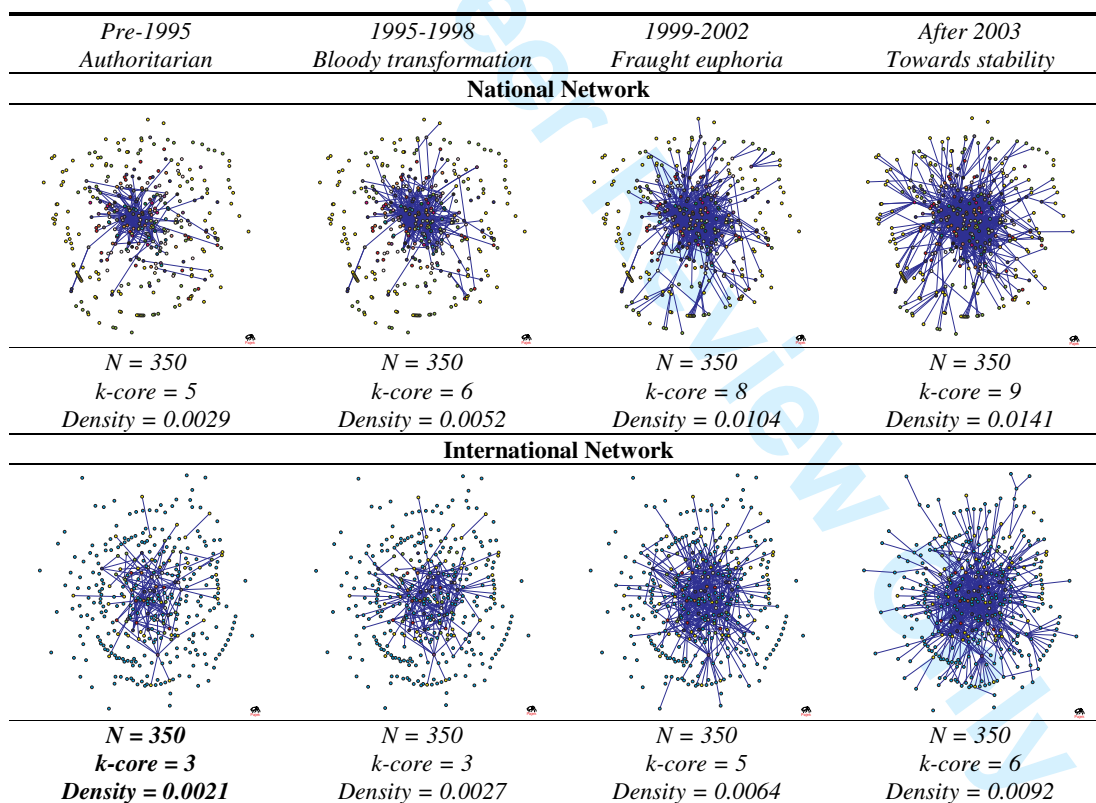


Fig 4. Expansion of Indonesian CSOs Networks
N-network=350, all nodes depicted across period, links represent "join action", data collected 2005-6
 Source: This figure appears in Nugroho (2009); the periodisation and the discussion of the international network appears in Nugroho and Tampubolon (2008); data and analysis rendered for this figure is based on Nugroho (2007).

Box –YDA and Advokasi

About the organisation. Yayasan Duta Awam (YDA), www.dutaawam.org, set up in Solo, Central Java in 1996, is a NGO working on the issue of farmers advocacy and civil society empowerment. Working with 16 full-timers, YDA aims particularly to empower the farmers so that they can advocate themselves independently in the future, when agricultural and rural development issues are projected to escalate politically in Indonesia. This goal is to be achieved through three main strategic activities: participatory research and monitoring, stakeholder dialogue forums and grassroots media. As a "Farmers' Institute for Advocacy" YDA has formulated its strategy to empower and increase farmers' capacity through educations, trainings and mobilisation; advocacy; development of public discourse; database; and capacity building for institutions and organisations. To help running the organisation, YDA has been using the internet since 1998, when Internet was firstly introduced to public in Solo and was probably the first NGO in the area which adopted the Internet.

Internet use for communication and networking. For YDA, the main reason for using the Internet was plain: the increasing need for up-to-date information, both for the organisation and mainly for its beneficiaries, namely farmers and rural communities. As a part of the organisation's strategy, the Internet is introduced to YDA's staff, networks, and their beneficiaries: local farmers. Not only is the farmer's bulletin "Advokasi" made available online, but despite difficulties, YDA has also endeavoured to pioneer online communities for farmers and its NGO networks. The result of YDA's engagement with the Internet sometimes goes beyond what can be imagined. It would certainly be simplifying to claim that farmers' broadened understanding about global political-economy issues surrounding agricultural development and policy is the result from YDA's (and its network's) use of the Internet. But certainly it is difficult, if not impossible, for YDA and its networks to keep updated with the latest development in agricultural development policy, including the global issues surrounding it, if they do not adopt the Internet.

Building farmers capacity. To take a case, Tukimin is an ordinary farmer from Kiram Village, Banjar, and a regular reader of Advokasi. He once confidently argued with an Asian Development Bank (ADB)'s project executor when he saw the mismatch between the planning and the actual project undertaking during CERD project. He insisted that there should be participatory approach in the project instead of top-down implementation, because "This project is being financed by the government's debt to ADB, and it is us, the people, who will have to pay it back", replying against the statement of an ADB's engineer that the project was possible merely because of ADB's fund (Advokasi 2007:12). Using the Internet for dissemination of awareness and broadening perspectives, YDA helps farmers like Tukimin to understand the direct impact of globalisation in their local context.



"After queuing for oil, now, queuing for national poverty"; "Public participatory advocacy in Riau: Advocacy was successful and not anarchic"; "Tip for planting coffee and rice"; "Participatory development in Talang Bunut"; "Is state still there for the poor?"

Source: Farmer's bulletin **Advokasi**, Edition 21, <http://www.dutaawam.org/> (accessed 15 May 2007)

For rural NGOs like YDA, the Internet can be used as more than a mere communication tool. More importantly, it could be an important means for empowerment: to build farmer's capacity as an active citizen who has the voice and the rights to be involved in the very process of rural development where they belong –which is the heart of reform in rural sector in Indonesia. (*)

Source: Survey, observation and interview with YDA's Executive Director, Muhammad Riza (30/11/2005)

APPENDIX

Analysing Indonesian NGO’s issues and concerns and adoption pattern using MIMIC-LCA

The multiple indicators multiple causes (MIMIC) latent class analysis (LCA) model is a classification method when researchers cannot find a “gold standard” to classify participants. The MIMIC-LCA model includes features of a typical LCA model and introduces a new relation between the latent class and covariates (MacCutcheon 1987; Magidson & Vermunt 2002; Vermunt & Magidson 2002).

In this case, the covariates are: length of the Internet use (*intsinc*), PC use (*pcsinc*), IT expenditure as percentage of annual turnover (*itexpproc*), and IT expenditure in nominal (*itexpnom*); while variables being estimated are the issues and concerns data: *ic_env* (environment), *ic_glob* (globalisation), *ic_rural* (rural), *ic_urban* (urban), *ic_devp* (development), *ic_hrights* (human rights), *ic_justpec* (justice and peace), *ic_democ* (democratisation), *ic_gender* (gender), *ic_child* (children and youth), *ic_poverty* (poverty alleviation), *ic_educ* (education), *ic_disabl* (disable), *ic_labour* (labour and trade union), *ic_farmer* (farmer), *ic_prof* (professional worker), *ic_gov* (governance), *ic_csemp* (civil society empowerment), *ic_confres* (conflict resolution), *ic_plural* (pluralism), *ic_idigns* (indigenous rights), *ic_ecosoc* (economic, cultural and social rights), *ic_oth* (other issues). The results from multiple indicators multiple causes (MIMIC) latent class analysis (LCA) models and the profile are presented below.

The goodness of fit of the MIMIC model

Model	LL	BIC(LL)	Npar	L ²	Df	p-value	Class. Err.
2 class	2553.67	5420.4256	58	4421.7976	163	1.8e-811	0.0153
3 class	2450.18	5407.792	94	4214.8303	127	1.3e-794	0.0258
4 class	2363.57	5428.8913	130	4041.5957	91	1.7e-786	0.0384

The profile of indicators

	Class 1	Class 2	Class 3		Class 1	Class 2	Class 3
Class Size	0.6674	0.1973	0.1354	Class Size	0.6674	0.1973	0.1354
Indicators				Indicators			
ic_env				ic_educ			
0	0.5716	0.4027	0.0051	0	0.5788	0.559	0.0427
1	0.4284	0.5973	0.9949	1	0.4212	0.441	0.9573
Mean	0.4284	0.5973	0.9949	Mean	0.4212	0.441	0.9573
ic_glob				ic_disabl			
0	0.8782	0.4172	0.2107	0	0.9661	0.9995	0.6334
1	0.1218	0.5828	0.7893	1	0.0339	0.0005	0.3666
Mean	0.1218	0.5828	0.7893	Mean	0.0339	0.0005	0.3666
ic_rural				ic_labour			
0	0.7605	0.6886	0.1612	0	0.8936	0.5822	0.4291
1	0.2395	0.3114	0.8388	1	0.1064	0.4178	0.5709
Mean	0.2395	0.3114	0.8388	Mean	0.1064	0.4178	0.5709
ic_urban				ic_farmer			
0	0.905	0.7422	0.2401	0	0.6726	0.6555	0.0413
1	0.095	0.2578	0.7599	1	0.3274	0.3445	0.9587
Mean	0.095	0.2578	0.7599	Mean	0.3274	0.3445	0.9587
ic_devp				ic_prof			
0	0.5659	0.6272	0.0066	0	0.959	0.9764	0.5684
1	0.4341	0.3728	0.9934	1	0.041	0.0236	0.4316
Mean	0.4341	0.3728	0.9934	Mean	0.041	0.0236	0.4316
ic_hrights				ic_gov			
0	0.7764	0.0299	0.0399	0	0.8184	0.5605	0.4299
1	0.2236	0.9701	0.9601	1	0.1816	0.4395	0.5701
Mean	0.2236	0.9701	0.9601	Mean	0.1816	0.4395	0.5701
ic_justpec				ic_csemp			
0	0.8419	0.2439	0.074	0	0.5163	0.2241	0.1035
1	0.1581	0.7561	0.926	1	0.4837	0.7759	0.8965
Mean	0.1581	0.7561	0.926	Mean	0.4837	0.7759	0.8965
ic_democ				ic_confres			
0	0.782	0.1033	0.1059	0	0.8924	0.6059	0.2333
1	0.218	0.8967	0.8941	1	0.1076	0.3941	0.7667
Mean	0.218	0.8967	0.8941	Mean	0.1076	0.3941	0.7667
ic_gender				ic_plural			
0	0.711	0.2742	0.0735	0	0.9312	0.7507	0.1986
1	0.289	0.7258	0.9265	1	0.0688	0.2493	0.8014
Mean	0.289	0.7258	0.9265	Mean	0.0688	0.2493	0.8014
ic_child				ic_idigns			
0	0.7512	0.5723	0.1091	0	0.9032	0.7488	0.3728
1	0.2488	0.4277	0.8909	1	0.0968	0.2512	0.6272
Mean	0.2488	0.4277	0.8909	Mean	0.0968	0.2512	0.6272
ic_poverty				ic_ecosoc			
0	0.6424	0.2548	0.0053	0	0.7567	0.1437	0.0716
1	0.3576	0.7452	0.9947	1	0.2433	0.8563	0.9284
Mean	0.3576	0.7452	0.9947	Mean	0.2433	0.8563	0.9284

	Class 1	Class 2	Class 3
Class Size	0.6674	0.1973	0.1354
Covariates			
pcsinc			
3-5 yr	0.2305	0.3224	0.1653
5-10 yr	0.3106	0.4337	0.3107
<3 yr	0.148	0.0267	0.0996
>10 yr	0.2255	0.1622	0.3233
Mean	0.0853	0.0549	0.101
intsinc			
3-5 yr	0.2298	0.3716	0.3324
5-10 yr	0.2875	0.3399	0.2267
<3 yr	0.2261	0.1974	0.0674
>10 yr	0.0679	0.022	0.1346
Mean	0.1887	0.0691	0.2389
itexpproc			
25-50%	0.1685	0.2757	0.1047
50-75%	0.0135	0.023	0.0673
<25%	0.6418	0.701	0.5607
>75%	0.0068	0	0
Mean	0.1694	0.0003	0.2673
itexpnom			
100-500m	0.0262	0.0716	0.068
50-100m	0.1121	0.1033	0.065
500m-1b	0.0068	0.046	0
<50m	0.6645	0.6891	0.566
>1b	0.0068	0	0
Mean	0.1836	0.0899	0.301