Assessing opinion of current and ex-tobacco farmers on tobacco farming and tobacco control in Indonesia:


Latar Belakang

Tujuan utama dari survei ini adalah untuk; i) mendokumentasikan karakteristik sosial-ekonomi para petani tembakau saat ini dan mantan petani tembakau; ii) mengidentifikasi faktor-faktor yang mempengaruhi beralihnya pertanian tembakau ke pertanian non-tembakau, dan iii) mengkaji pendapat para petani tembakau saat ini dan mantan petani tembakau mengenai pengendalian tembakau.


Total 500 petani (309 petani tembakau saat ini dan 191 mantan petani tembakau) didaftar secara acak dalam studi ini. Informasi diperoleh melalui wawancara langsung menggunakan kuesioner semi-terstruktur.
Tobacco use is the leading cause of disease and premature death in Indonesia. WHO estimates smoking kills 235,000 Indonesians annually and secondhand smoke (SHS) takes another 25,000 lives. Smoking is largely unregulated with 61.4 million or 36.1% of the adults currently use tobacco. Smoking prevalence has been unacceptably increased among males to 67.4% in 2011 from 53.4% in 1995. The increment among female was tripled and reached at 4.5% in 2011 from 1.7% in 1995.

Despite Indonesia's commitment in many regional and global forums, it has not ratified WHO FCTC yet and it has failed to have a comprehensive tobacco control law to combat tobacco epidemic in Indonesia. This shows that there is a lack of political will for tobacco control. This might be because of tobacco industry interferences and influences over policy makers in Indonesia. Further tobacco industry always makes arguments that FCTC can turn off culture and customs as the nation of Indonesia. Clove cigarettes are as part of heritage; Indonesia is known to be the world's main producer of clove cigarettes. The FCTC will have a negative effect on tobacco farmers, factory workers and vendors, however, these are not true.

The reality is that farmers generally do not rely only one crop, and there are various alternatives. Additionally, the low price of cigarettes in Indonesia means that taxes are low and labor and materials are cheap. Farmers and factory workers remain vulnerable to economic fluctuations. It was also observed that tobacco farmers do not see tobacco farming as profitable crop. It is heavily influenced by many factors such as weather, market and tobacco industry monopoly. It was also seen that there is a trend of tobacco farmers shifting other crops voluntarily.

**OBJECTIVES**

Key objectives of the survey were to; i) document socio-economic characteristics of current tobacco farmers and ex-tobacco farmers; ii) identify the factors influencing shifting tobacco farming to non-tobacco farming and iii) assess opinion of current and ex-tobacco farmer on tobacco control.

**METHODS**

Muhammadiyah University has conducted a survey in 3 main tobacco producing provinces in Indonesia: East Java, Central Java, and West Nusa Tenggara in June and July 2015. Five major tobacco farming locations were selected – Jember, Magelang, Temanggung, Central Lombok and East Lombok.

A total of 500 farmers (309 current tobacco farmers and 191 ex-tobacco farmers) were randomly enrolled in the study. Information was obtained through face to face interview by using semi-structured questionnaire.
Key findings:  
Socio-demographic characteristics

Of the 500 respondents, 412 (82.4%) were males and 88 (17.6%) were females. Mean age of the respondents was 45 years old (min=16, max=70). More than half (56%, n=280) of the respondents were ever smokers. Of the 280 ever smokers, 97.9% (274) were current smokers and 1.2% (6) were former smokers. More than half (54.8%) had primary and less than primary education, 30.6% had secondary and only 14.6% had more than secondary level education.

Figure 1: presents that a median monthly income of ex-tobacco farmers had more than three times higher than current tobacco farmer. More than 35% of the current tobacco farmers perceived that their monthly income was not sufficient to arrange basic needs (foods, drinks, school’s fees, cloths etc) for their family.

Opinion of current tobacco farmers' on tobacco framing

Table 1 Factors influencing to keep doing tobacco farming (current tobacco farmers=309) Factors Number (%)  
<table>
<thead>
<tr>
<th>Factors</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family traditional farming</td>
<td>114 (36.9%)</td>
</tr>
<tr>
<td>Profitable</td>
<td>52 (16.8%)</td>
</tr>
<tr>
<td>Follow neighbors</td>
<td>21 (6.8%)</td>
</tr>
<tr>
<td>Self-willingness</td>
<td>21 (6.8%)</td>
</tr>
<tr>
<td>Tobacco industry lobby</td>
<td>9 (2.9%)</td>
</tr>
<tr>
<td>Felt only tobacco can grow in my land</td>
<td>7 (2.3%)</td>
</tr>
<tr>
<td>Don’t know/No response</td>
<td>85 (27.5%)</td>
</tr>
</tbody>
</table>

Table 1 presents more than one third of the current tobacco farmers (36.9%) believed that they do tobacco farming because of the family tradition, and only 16.8% reported they perceived that tobacco farming is a profitable business. Some 6% of them said that they do it because of their neighbors are doing it. These findings strongly suggest that tobacco farming is not a profitable business among Indonesian Tobacco farmers.

Current tobacco farmers have been doing tobacco farming on average for 16 years (median 14, mini 1 and max 50 years). And they said that they only do tobacco farming on average 5 month in each year. Of the 309 current tobacco farmers, only 13.6% said they only do tobacco farming, however, majority 86.6% (267) said they also do other types of non-tobacco farming.
Other types of agriculture farming | Number (%)  
--- | ---  
Vegetables (cabbage, chilly, tomato, potato etc) | 86 (39.8%)  
Grains/fruits (corn, Soya beans, rice, coffee) | 130 (60.2%)  

These findings strongly suggest that current tobacco farmers are not dependent on tobacco farming only. They are already doing other agriculture farming such as vegetables, grains etc.

**Findings suggest that tobacco farming might be harmed due to unpredictable weather and tobacco industry monopoly in controlling market**

| Factors | Number (%)  
| --- | ---  
| Unpredictable weather | 92 (29.8%)  
| Tobacco industry monopoly in controlling prices | 62 (20.0%)  
| Lack of government regulation to control tobacco industry monopoly | 7 (2.3)  
| Government regulation on smoking control to protect health | 1 (0.3)  
| Don’t know/No response | 147 (47.6)  

**Figure 2** presents that tobacco farming is not a desirable farming among current tobacco farmers. About half (48.9%) of the current tobacco farmers would not want to encourage their family and children continuing tobacco farming.

**Figure 3** presents that current tobacco farmers have shown their willingness to shift to non-tobacco farming from tobacco farming (33.7%) and 37.9% respondents said 'don't know' which indicates their silence willingness to find alternative agriculture crops.
Opinion of Ex-tobacco farmers' on tobacco framing (total number = 191)

Ex-tobacco farmers had engaged on average 10 years on tobacco farming (min 2 and max 30 years). They had shifted to non-tobacco agriculture 5 years before on average. Majority of them (99%) reported that they are happy doing other crops such as vegetables and grains. Table 4 Factors influenced ex-smokers shifting tobacco farming to other agriculture farming (n=191) 

FactorsNumber (%)Tobacco industry monopoly in controlling market prices 86 (45.0%) Not profitable 25 (13.1%) Unpredictable weather 21 (11.5%) Family did not want to continue tobacco farming 22 (11.6%) Knew tobacco is harmful for health 4 (2.0%) No response 28 (14.7%) 

Table 4 presents that key factors that forced ex-tobacco farmers stopped tobacco farming were tobacco industry monopoly in controlling market and prices (45.0%), they found it not profitable, weather and others.

Ex-tobacco farmers shifted to other agriculture farming because they did not find tobacco farming as a profitable business (depending on weather and tobacco industry)

 Majority of the ex-tobacco farmers shifted to grains (71%) followed by vegetables (21.5%), fruits and others (figure 4). These findings revealed that ex-tobacco farmers might have been making a good business with grains, vegetables and fruits.
Some successful examples of ex-tobacco farmers doing other farming such as chilly, coffee, tomato.

**Figure 4**: Types of other agriculture farming doing by ex-tobacco farmers.

- Grains (rice, soybeans, corns): 71.2%
- Vegetables (cabbage, chilly, tomato, potato, baby-beans): 21.5%
- Fruits (banana etc): 2.1%
- Others (coffee, ginger, etc): 5.2%

**Figure 5**: Ex-tobacco farmers yearly income significantly increased with 69% after they shifted to other crops.

- Estimated yearly income from tobacco before shifting: 9 million rupees
- Estimated yearly income from other crops after shifting: 15.2 million rupees
Almost all respondents (96.5%) believed that tobacco smoking is an addictive (current tobacco farmer 94.9%, ex-tobacco farmers 98.2%). Seventy-nine percent of the current tobacco farmers and 95.8% ex-tobacco farmers reported that cigarette smoking causes lung cancer. 54.2% of the current tobacco farmers and 77.4% of the ex-tobacco farmers said that secondhand smoke causes lung cancer.

**Figure 6 Current and ex-tobacco farmers opinion on child smoking**

"Would you like to see your children smoking?"

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current tobacco farmer</td>
<td>64.40%</td>
<td>35.60%</td>
<td>19.60%</td>
</tr>
<tr>
<td>Ex-tobacco farmer</td>
<td>80.10%</td>
<td>19.90%</td>
<td>70.40%</td>
</tr>
<tr>
<td>All</td>
<td>70.40%</td>
<td>19.90%</td>
<td>70.40%</td>
</tr>
</tbody>
</table>

Figure 6 presents that 64.4% of the current tobacco farmers and 80.1% of the ex-tobacco farmers would not want to see their children smoking. It was interesting to note here that none of them said ‘yes’ they wanted to see their children smoking. These findings revealed that tobacco farmers strongly believed that tobacco is a harmful product.

**Figure 7 willingness to quit smoking (current smokers only 274)**

<table>
<thead>
<tr>
<th></th>
<th>Current tobacco farmers</th>
<th>Ex-tobacco farmers</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>54.3%</td>
<td>59.7%</td>
<td>56.9%</td>
</tr>
</tbody>
</table>

Figure 7 shows that more than half of the tobacco farmers and ex-tobacco farmers were willing to quit smoking. These indicate a positive support for tobacco control program.
Figure 8 presents that more than 60% of the current tobacco farmers and more than 80% of the ex-tobacco farmers support government of Indonesia to make strong tobacco control regulation.
CONCLUSION

Both current and ex-tobacco farmers believe that smoking causes lung cancer and it is seriously harmful for smokers and Non-smokers. They also perceived that smoking is an addiction. Therefore majority of them would not like to see their children smoking. More than half of the current smokers have shown their willingness to quit smoking.

Both current and ex-tobacco farmers revealed that tobacco farming was not a profitable business. They reported that it is depended on weather, and hugely controlled and monopolized by tobacco industry. Ex-tobacco farmers have made good business from other agriculture crops after they shifted from tobacco. Grains and vegetables are most common agriculture crops that current tobacco farmers can plant instead of tobacco. Significant proportion of current tobacco farmers have shown willingness to switch in non-tobacco farming. About half of the current tobacco farmers would not want to see their family continue tobacco farming.

Thus, both current and ex-tobacco farmers support government of Indonesia to make a strong tobacco control law to prevent current and future generation from tobacco disease, deaths and disability.

RECOMMENDATIONS:

- Tobacco farmers support and urge government to make tobacco control regulation in preventing current and future generation from tobacco use. Thus government of Indonesia has to make a comprehensive tobacco control law and should accede World Health Organization Framework Convention on Tobacco Control (WHO FCTC)

- Ex-tobacco farmers have shown successful results from other agriculture crops such as grains and vegetables on which they shifted. Current tobacco farmers have also shown to switch to other agriculture crops. Both groups believe that tobacco farming is not profitable business. Thus, local and central government must encourage and provide support to the tobacco farmers in switching to other agriculture crops.
PROFIL PENELITI

1. Fauzi Ahmad Noor, S.IP
Beberapa karya:
1. Film dokumenter (Kesaksian Dari Temanggung) sebuah kisah nyata petani Tembakau Temanggung, tahun 2010
2. Film dokumenter (Petani Merdeka) kisah sukses Alih Tanam Tembakau Petani Magelang 2014
3. Serial Facsheet: Kumpulan Kisah Sukses Champion Tobacco Control 2014 Karya Penelitian terkait pengendalian Produk tembakau:
   1. Survey perilaku Merokok di Sekolah dan tempat umum di Kota Yogyakarta, 2014

2. Dianita Sugiyo, Ns., MHID
Staff pengajar program studi ilmu keperawatan, fakultas kedokteran dan ilmu kesehatan UMY. Telah menyelesaikan studi master pada tahun 2012 di Flinders University, Australia untuk pendidikan Master of Health and International Development. Bidang penelitian pada area health development, international development and public health. Pada tahun 2010 mengikuti program internship di Australian Embassy untuk maternal and child health project. Telah meneliti di banyak judul penelitian keperawatan komunitas dan pengendalian tembakau.

3. Awang Darumurti, S.IP, M.Si

4. Nugroho Agung Prabowo, ST,M.Kom
5. Dra. Retno Rusdjijati, M.Kes

Dr. Eng. M. Islamy Rusyda, ST.MT.