Labor and Sustainable Development in Traditional Oil Mining

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Abstract. Declining rubbers in the world affects socio-economic life of rural community. One of them is changing livelihoods to traditional oil mining worker (illegal). Traditional oil mining locations caused trouble, either spatial, horizontal, and vertical in social interactions. For the reason, writer interests to describe factors that affect works on traditional oil mining. Social interactions are occurred in traditional oil mining and sustainable development practices. Writers used approach flexible labour market and sustainable development. This paper is based on qualitative descriptive research in some village in Musi Banyuasin district, South Sumatera, Indonesia. The unskilled worker works only using solely muscle and network. Bad work conditions, low level of work safety and health are comparable with money that circulates in the village. The social and cultural conditions in this area decline caused by drugs and entertainment. Conflicting power in the rural areas will be arisen. In additional, the massive function plantation and environmental degradation will appear. For it, the writer needs to present social intercourse. This essay will contribute for the stakeholders to role sustainable development on economic, social, and environment aspect. It is also for considering future generations.

1. Introduction
Neoliberal as a capitalist economy in the world has expanded to Indonesia. Actually it presents in Indonesia since 1967 on economic crisis and moral of New Order [1]. However, it increased in 1998, including change of the labor market as a result of global economy. It means, the role of the state has reduced, but market mechanisms have bigger in making labor market and prosper citizen’s responsibilities.

Role of world economy made the labor market become more liberal [2]. Labor market transforms being a flexibility market. Although, this concept has a double meaning. One side, it is inclusive flexibly assumed because creating a great opportunity labor market, reducing poverty, and decreasing unemployment. On the other hand, it will create social vulnerability because anytime labor could lose their jobs. It have limited working time and should be keep renewed [3, 4]. Unskilled labor will be most needed, but it will make impact.

To this article, traditional oil mining (illegal) categorized informal workers in the flexible labor market. They just turned a job as of the global economy crisis, despite the same employment status. Decreased prices rubber at the farmers to Rp 4 thousand ($ 3.03) per pound affect the socioeconomic life of a household. The low level of education, unavailable jobs stimulate the high-frequency drilling activity, distilling, and illegal trade oil in a number of villages district Musi Banyuasin, South Sumatra, Indonesia.
There are problems on spatial and social interaction. On the spatial, drilling activity, distilling, and trade traditional oil are allegedly against the rules. They admit that the Constitution UUD 1945 article 33 paragraph 3 that “earth, water, and wealth its inherent nature controlled by the state and used for public welfare” [5]. In addition, occurring transfer and abuse functions tree crops and forests. On the one hand, occurring exploitation of natural resources. This is not consistent with sustainable development goals [6], namely “development that meets the is of the present without compromising the ability of future generations to meet their own needs”.

So, important maintain an environment for future and public viewing. This article discusses many factors that effect and social relation worker on traditional oil mining. Also writer explains sustainable development that occur.

2. Flexible Labor Market and Sustainable Development
Flexible labour market created a paradox. Advocates policies flexible labour market [7, 8] gave some optimism. They have promised that investors market system working give an advantage for country, employers, and recipients. The access system based on competition in obtaining jobs, without the intervention of the state, able to increase economic growth, raise the income, also reduce poverty. But, a covert advantage for the employer is cheap recruitment system and working termination, small costs of an allowance for non-permanent workers, working hours and wages work adapted to fluctuations with the market demands. Thus, the flexible working system has instead indicated increase profit and efficiency production employer. While, workers continue to improve, more productive in jobs, rotation tenure short, diversification even deprive of strength (states) workers.

Practice, the application of flexible working system created some problems [8] as degradation working conditions, uncertainty income, uncertainty welfare, as well as the lack of the position of women workers. Even, this system has instead increased vulnerability work because unskilled labour tends to turn into an informal sector which is less prosper.

While, sustainable development is the result of an agreement in Rio de Janeiro, Brazil in 1992. The agreement tying the environmental management in any system and inherent in any policy countries. The definition of sustainable development [6], that:

“[Sustainable development] contains within it two key concepts: the concept of ‘needs’, in particular, the essential needs of the world’s poor, of which priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs”

The essence of sustainable development this includes equity between generation (intergenerational equity). In this case, the community sustainable is the society that can fulfil their needs without reducing the chance of future generations in meeting their needs. On what defines development is an activity that is thorough and well planned. Sustainable development stressed the importance of preserving the natural environment for the future. A number of principle namely the principle of justice in one generation, early prevention, protection of biodiversity, internalization the environmental costs, and mechanisms incentives.

Sustainable development it involves harmonious interaction between the biological, economy, and social system known as a triple P (planet, people, and profit). Sustainable development also is vertical (interactions among economic, natural resources, and environment system) and horizontal (time). Economic relations with the environment is expected to continue (viable), relations with social environment is expected to continue to hold (bearable), and economic relations with social expected is fair (equitable). Following the relations at figure 1.
Figure 1. The relationship between ecology-economy-social in sustainable development.

Direction sustainable development is expected to alleviate poverty (economy), giving social equity balance (social justice), and the increased environmental quality. So, it takes some capital, including capital (financial and economic machine), social capital investment (education, health, and social familiarity), and ecological capital (natural resources renewed also substitution resource that cannot be renewed).

Sustainable development has a number of views on held by the environment, namely the environment for economic development (eco-develop mentalism), environment for the benefit of man (eco-humanism), and environment for the environment itself (eco-environmentalism). So, a fundamental element in society [9] to see an undeveloped between structure, culture, and social process. Besides, the analysis supports saving the environment that can be done to the level of behavior individuals and change in the social structures in the community.

3. Methods
This article is based on descriptive qualitative research [10, 11]. This method aims to explore and to know social meaning of traditional oil miners. The activity of mining locations, drilling, and transitional oil refine ring are plenty in number of villages in Musi Banyuasin district, South Sumatra, Indonesia. The oil marketing up to Jambi and Palembang, especially on the black market. Primary data is taken from interviews and conducting miners, security guards, and village devices. Secondary data is obtained from work report, notable, and study literature. Validation techniques used triangulation source, “different” information, and peer debriefing.

4. Results and Discussion
4.1. Location description
The majority villagers live near traditional oil mining is local people. They called Sneaky. The family system still closer, but they life individualism and secularism. They could be grouping in limited livelihood neighbours and nearest course.

Villagers changed their livelihoods. They are originally rain fed farmers (rice). They switched to rubber and palm farmers. But, since 2013 the price of rubber has fallen. It becomes Rap 4 per pound. The farmer must have divided the gain with the land owner and cutter rubber. The composition is two-thirds (2/3) to cutter and third (1/3) to owners if rubber local seeds, or 50%; 50% if the gain on good condition. Because of this situation, villagers switch work to be traditional oil miners. It is approximately 80%. So it is not surprising if there are find number of oil wells. It is more than hundreds of oil wells.

4.2. The social relations flexible labour market traditional oil miners
Low level of education, limited employment opportunities, and declining of farm workers look for other jobs. Traditional oil miners have become an option, especially for unskilled workers and solely muscle. The beginning of crude oil exploration estimated since worked 1990s. It has a wells Dutch heritage, Stanvac. Traditional oil mining worked in groups. Oil production miners chain involved the
investor, land owners, the owner of drill, picker, oil collectors oil (scavenger), and security guards. Drilling oil are traditional, monopolistic, and illegal.

Capital of oil mine big enough. It needed at least Rap 30 million for one eye drill. It is regarded with the result. One eye drill expected producing 70-80 oil drum. The price of the drum (100 per litter) is Rap 30 thousand until Rap 40 thousand per litter. It means, earnings from one well drill can reach Rap 320 million.

Oil exploration involves some working group of mutual support. It needs first financier willing to finance produce mining process. The financiers look for land owner who’s their garden is unproductive. They also search the security guard to guide the mining process. They used oil drilling from Lampung. After the oil have found, the part of worker involved on this next process are next towing oil services (picker), collectors (scavengers), buyers crude oil, owner of the car carrying oil, distillers oil, until marketing illegal oil. The operating system generally recruited informally on the basis of friends and families. Figure 2 is flowcharts it works system:

![Figure 2. The structure of traditional oil miners.](image)

Workers income are varying widely base on mutual agreement. The pay oil well drilling usually calculated based on the depth of well. Generally, the depth of oil wells is 300-400 meters. If depth reached 100 meters, their wages Rap 100 thousand/m². While, if it is more than 100 meters, the price for oil services drilling is Rap 130 thousand/m². Services picker (“pemolot”) calculated drum (100 per litters) wage of Rap 30 thousand until Rap 40 thousand per litter. If crude oil collectors collect 3 jerry (35 litters) per day, they can get Rap 180 thousand each day. Sharing profit of crude oil is the investor 60-70%, land owner 30%, and security guards 10%. It is estimated the money in the drilling can reach billions of rupiah per day.

The oil mining becomes a pulling factor for number of newcomers. It included Army or Police, members of the legislative, and devices village also engaged on illegal drilling oil business. It makes the business difficult to control. Community members become by the Police “a source of funding”. This is because there is no rule of law.

Based on trust, the community knew the staging process in obtaining oil. First excavation an oil well will find a layer of water, next mud, and then oil. The informant says signs of land containing oil hear like air bubbles, as boiling water at the drilling. In addition, there is first mine oil that producing near the land. So, it is not surprising if, one area of land finds number of oil wells in various groups. Transitional oil miners believe culture influence in search of an oil source. They must trust and avoid the conflict each other to keep oil arise. It is capable of being reducing conflict (latent) in the location.

The results of crude oil still need process distillation. The process is burning the oil in the drum to next steam oil distributed via pipes in a bathtub. Generally, the result of distillation process is premium (40%), next kerosene (30%), and last solar (30). The work still manual or traditional way, a decisive manner of the category based on the manner holding and smelling materials.

Traditional oil mining has huge blessed for communities. They stated that many people have riches suddenly. The change of traditional oil mining seems in many permanent residents building, number of motor vehicles, more immigrants, and increasing many child employments.
The negative effects of location are nature, social, and local culture. Pollution [12] is occurred on air, water, and soil. Air pollution comes from petroleum gas as result oil exploration, fire at a mining location, activity towing machine, refiners oil, and carrier oil transportation. Air pollution cause chronic diseases such as respiratory infections, asthma, decline IQ, nervous disorder, and impotence. Meanwhile, water and soil pollution is effected of waste scattered oil. The quality of soil declined, so many animals soil polluted and extinct.

Social disaster from this mining activity is also broad and complex. It includes socioeconomic, political, and culture. Health problems related to high workloads, unstable emotional disturbance, psychic disorder, and high blood pressure. The social impact is social injustice because of the gap of social and economic sectarian miners, social unrest both vertically and horizontally, access and political support to exploit natural resources, injustice sex, and injustice between generation on natural resources.

Political issues are human rights abuses. It likes employing minors, long working hours, bad work conditions, loss of life man, and lack of political will threatened life socio-economic-culture local community. The impact of culture is social and cultural shock. It will eliminate local knowledge of the rural, hedonism lifestyle, alcoholic, entertainment, drugs, until free sex.

The findings show that practice of flexible labour market traditional oil mining also creates problems on working relationship which complex situation. Social conditions degradation is begun on starting work, working, and after work. Generally, workers try searching of financier or employer. The weak position is women workers. Working system has undertaken informally, without covenants rights, and obligations the recipient’s written work. The absence of allowance or health insurance for workers and their families. Working hours and wages accordance with outcome and fluctuations of oil price. In addition, it has happened working termination, including easy to move work from one group to other.

Flexible labour market on traditional oil exploration is also creating economic and environment degradation, directly or indirectly. Although they had considered oil mining they also incapable improve economic worker’s conditions and families. This sort work is not sustainable because it is not relying on exploitation of non-renewable natural resources. Even, the large tendency of this job just ruined and environment pollution, as well as producing crisis and natural disasters for future generations.

4.3. Traditional oil mining framework on sustainable development

Basically, damage and pollution environmental caused error paradigm development policy in a number of countries in the world. Development paradigm generally prioritizes the economic aspect. But it is not considered the aspects and sociocultural environmental. This contravenes declaration of sustainable development goals (SDGs) is 2030. The new sustainable development paradigm based on “threshold” principle where economic development should not be sacrificing social and environment development [13]. Figure 3 shows a change of paradigm sustainable development.

Figure 3. The difference paradigm sustainable development.
Traditional oil mining practices is not part of the planned government development, but they became part of supervision of the government. Crisis and environmental disasters, lack of supervision, not regulation, and abnormalities were conducted by unscrupulous government in traditional oil mining practice was an evidence still bad governance. Moreover, the regional autonomy aimed to sublime or overcome power centralization at New Orde, it is cause a new problem with the neglect of the environment by exploitation of natural resources, including a pretext to “pursue the local revenue”. On the other hand, problem of crisis and disaster an environment is result of an error human behavior, both level of individual and groups.

To achieve sustainable development can be done by improving environmental damage, with regard to economic development and social justice. The equity production factor, equalize of access role and chance, fair income distribution, pushing the space to participate in this matter, and received diversity in the union is part of it should be noted in implementing sustainable development. Community participation in the management of the environment set out in article 10 law number 23 years 1997 that:

“The government to grow and develop community awareness of its responsibility in the management of the environment by counselling, guidance, education, and research on environment”

Practices social development sustained in the traditional oil mining not relating to improving quality of human life. Judgment on esteem has not shown awareness and participation in status strengthen the role of women in the field of employment, and ineffective the role of the family in function of religion, protection, and education sector especially stem the entertainment, dangers of drugs, and free sex in rural areas. While the distribution of justice socioeconomic had not guarantee equity resources and the judge’s distribution welfare through fair income distribution.

The problem of sustainable development here can be categorized in the nature of vertical and horizontal. On the vertical side, still not aligned development between the economic, human, and the environment system. The economic aspect occupies a major role through exploitation against nature and man, even costing natural needs for the next generation. Besides, vertical social conflict also is seen by the local people as mine workers (laborers with the government of mining related traditional oil that tends to disadvantage community). While on aspects of horizontal the threat of a crisis and mining disaster in the aftermath of oil just waiting time. Horizontally social conflict happened between workers, among the business group of miners, also between communities with the firm due to the exploitation of natural resources of that has now emerged latency conflict.

An environmental problem closely linked to sociocultural aspects of a society. A fundamental element in society in developing the concept of social development aspect at least with regard to the structure, culture, and social process (Wirutomo, 2011). Social structure relates to a pattern of interaction between community groups and social economic coating. The culture meaning contain a copyright outcome included value system, norm, and social pranata thriving. Social process name from dynamics structure and culture interactions activity among social actors. The findings show social system affects traditional public relations of oil miners with their ecosystems. The risk society have entered the rural areas through the activity of traditional oil mining. This could be seen in the village that have face modernized, land and nature being commercial, entertainment leaving norms and the local cultural values, and threats ecological crisis for future generations. Here, social reality and reality ecologically seemed mutually growth. This table 1 explains social intercourse occurring in the traditional oil mining.
Table 1. Fundamental element of social intercourse in traditional oil mining.

| Aspect           | Traditional oil mining link                                                                                      |
|------------------|---------------------------------------------------------------------------------------------------------------|
| Structure        | a. Labor law Indonesian Republic Number 13 the year 200.                                                      |
|                  | b. Environmental Management Law Indonesian Republic article 10 law number 23 1997.                            |
|                  | c. The purpose of sustainable development.                                                                     |
|                  | d. The local human resources low educated.                                                                     |
|                  | e. The local human resources have not pro sustainable development.                                              |
|                  | f. The family function in rural area is not affected.                                                           |
| Culture          | a. Fewer customs institutions and social sanction.                                                               |
|                  | b. Less appreciate and leave local knowledge.                                                                   |
|                  | c. Bad governance.                                                                                            |
|                  | d. The people is easy affected modern lifestyle                                                                  |
|                  | e. The participate opportunity for all parties, including women worker.                                         |
|                  | f. The weakness of the social culture and environment education.                                                |
| Social process   | a. There is not facilities and support from government and private sectors.                                     |
|                  | b. Black market and illegal practices oil support by government officials.                                       |
|                  | c. There is not respond on sustainable development from the government.                                          |
|                  | d. Keeping consistency is needed for environmental policy.                                                       |

Finally, this paper stressed on the importance of thinking building about sustainable development involve the environment in many aspects. The relation included environment for economic development (eco-develop mentalism), environment for the benefit of man (eco-humanism), and environment for the environment itself (eco-environmentalism). Thus, need to move ekoliterasi (Eco literacy) and Eco design (ecodesain) offered [14] on implementing sustainable development. Environmental education useful to increase knowledge, skills, attitude, motivation, commitment, awareness about the environment and the problem, ranging from the individual level, family, and society.

5. Conclusions
This article shows that informal workers tend easy to throw from his job, especially on the impact of the world economic system. Many factors affected traditional oil miners like livelihood farmers and rubber workers that cannot full-filling daily needs, low levels of education, unskills, solely muscle, and family network. Social interactions are quite complex. The work should be in the working group. At least, it need three groups for chaining of traditional oil mining. The groups are drills, miners, and distillers. Practices sustainable development in this is are not happen because they are not involving on environment and social aspects. The exploitation goals are merely for purposing the economic. The structure of the income of the village, not followed with strength of the social and local cultural community. Social and environmental degradation are higher in rural areas.

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