

Waste Management Planning

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ABSTRACT

Waste management should be through planning due to the volume of waste increased from year to year meanwhile Final Waste Disposal's capacity has not increased significantly. Waste management planning which was not made comprehensively will have impact on environmental pollution. The purpose of this research is to describe and analyze the waste management planning made by the Government of Malang City, to describe and analyze the society participation in waste management and to describe and analyze concept model of participatory planning of waste management to achieve environmental preservation. The study was done in the area of Malang City Government located in East Java province using qualitative research methods. The results showed that the planning that involves society participation and also insert what has been done by society in managing waste is the best response to reduce the volume of waste.

KEYWORDS: Planning, Waste Management, Society Participation

INTRODUCTION

Planning made by involving the society becomes more effective in development. In waste management, planning made by involving the society has a lot of advantage where they can enjoy the clean environment and at the same time can get the financial benefit, for example, Bank Sampah Malang (BSM/Malang Waste Bank (MWB)) program in Malang. The government in charge can reduce waste management cost due to the involvement of the society and able to open up a space for the creation of new job. However, like we can notice of this waste management, its service in almost every local government has not optimally done yet, moreover it seems neglected. This is related to the environmental problems, especially in big cities in Indonesia. Normatively in Law Number 18 Year 1997 of Environmental Management and Law Number 18 Year 2008 of Waste Management and also Law Number 32 Year 2009 of Waste Management Protection and Management already managed about waste management which relates to the environment.

Government regulation issued for the implementation of household waste management and similar household waste management is Indonesian Government Regulation Number 81 Year 2012 of Household Waste Management and Similar Household Waste. The proper planning with the society involvement from planning until implementation can answer the environmental and waste problem. Society as residents coexist with the environment has great concern of environment preservation and waste management so they can live with a good level of environmental health.

Waste issue is a serious problem especially in big cities which are densely populated. Planning must be made properly with the proper technology. Waste was once a disgusting thing and cause disease and damage to the environment preservation will be useful and has economic value. Waste that is not transported from Temporary Waste Disposal (TWD) to Final Waste Disposal (FWD) causes unpleasant smell and disease, because usually Temporary Waste Disposal is not too far from the residence compared to Final Waste Disposal which location should be far away from the residence. Average production of waste in big cities is about 0.5 kg/person/day until 0.8/kg/person/day. The amount of waste which approximately accommodated is 60%-70% only, the rest is wasted outside the FWD. Increasing volume of waste causes serious impact, for example damaged environment, emergence of various disease, etc.

Waste problem in Malang city from year to year has crucial problem which the volume of waste that can't be accommodated to FWD SupitUrang has the increasing volume. In 2011, waste volume is 400 tons/day and becomes 600 tons/day in 2013. The waste is mostly derived from household, market, and industry which is accumulated in 75 TWD. Waste composition in Malang city can be seen in table 1.

Table 1: Malang City Waste Composition

No.	Waste Component	Weight Percent (%)
1	Organic (leftover, leaf, etc)	74,83
2	Paper	3,58
3	Plastic	13,84
4	Wood	2,16
5	Cloth/textile	3,59
6	Rubber/Imitative Skin	0
7	Metal/Metal	0,36
8	Glass/Glass	0,42
9	Etc	1,22
Total		100

Source: DKP Malang City, 2013

Final Waste Disposal (FWD) in Malang city is located at village Mulyorejo, area of district Sukun with the spacious plan to reach 25 ha meanwhile its spacious right now is only 15 ha (SupitUrang). Waste Management in FWD SupitUrang will use sanitary system land field full which is eco-friendly and modern technology in order to minimize emissions of greenhouse glasses.

Waste management in Malang city from year to year has increased the waste volume along with population growth. Illustration of trash increasing and need of FWD extents with open dumping technical without depreciation can be seen in following table.

Table 2: Progress of Waste Volume in Malang

Year	Population (person)	Waste (litre)/day	Waste (m ³)/day
2010	1.120.857	3.642.785	3.643
2011	1.124.858	3.655.789	3.656
2012	1.133.123	3.682.650	3.683
2013	1.136.373	3.693.212	3.693

Source: Processed Data, 2014

Table 2 shows that progress of waste volume in Malang always increases along with the population growth. Malang is education city therefore it becomes a choice for people outside Malang to continue their education, so it takes effect on population. Source of Malang Post [1], the number of people who lives in boarding house is around 300.000 people every year. It will affect the progress of waste volume in Malang.

Normally, FWD extents in Malang needs 13.93 ha area every year. FWD SupitUrang available only 16 ha. It becomes the important thing to be exposed, related to the need of area which will increase every year. Waste management in FWD currently is outside normal calculation where the bundle of waste now reaches 12 meters, thus the plan of waste management must be made regards to the condition above or the need of FWD spacious in the future or the planning maximizes 3R in order to reduce waste volume that goes to FWD SupitUrang.

Waste management that has been done by researcher before, like Cardinali [2] did in his research, found that waste management planning had lack related to Strategic Planning. Hina [3] in his research in Kanpur India had difficulties in collected waste database therefore the result of his planning become less qualified in line with the population growth, meanwhile Moczygemband Smaka [4] described about the success of Graz government in Austria in waste managing up to 69 percent and the rest went to FWD.

The purpose of this research is to describe and analyze waste management planning done by Malang government, to describe and analyze society participation in waste management and to describe and analyze the concept of participatory waste management planning models to achieve environmental preservation.

Development Planning.

On 1970-1980s periods, it began to feel the presence of anxiety about lack of reliable or objective data. The quantitative approach often leads to positivism perspective thinking. The planning approach often tends to rational choice, whereas the rational choice often criticized because of the lack of accurate data validity. The positivism thought was criticized by Lincoln and Guba [5] which state that:

“The positivism thought often ignore the meaning or significance of the process that uses quantitative positivist approach in the standard process used by quantitative approach to the development of the size of the phenomenon that is being observed”

Theoretically according to Toulmin(1960) in Faludi[6] is “an explanation that responds to the results of observations of unexpected events”

The opinion above can be interpreted that in theory there are results obtained on observation of phenomena that are often overlooked. Furthermore Friedmann gives the sense that:

"Planning is the first way to take action or intervention a policy" (Friedmann)[7]. Explanation of rational planning theory has actually been proposed Faludi [8] that "The distinction between theory in planning and theory of planning (planning theory) should not result in an entirely separate development of the two. Clearly, both types of theory are needed for effective planning. Indeed, there are signs that both sides are drawing closer together". Faludi opinion assumes that required the use of planning is not only procedural, but a plan must be noticed related to substance aspects. Particular attention to the substance aspects in the planning made by the planners will increase the effectiveness of the planning results, because planning and substantive technocratic been consistent.

Substance absorption methods from other science disciplines often called as a substantive theory or in planning theory known as the theory in planning, while planning theory called a procedural theory or a theory of planning. Substantive theory in this research is in terms of the social society science in which the role of participation is emphasized in waste management. Any participation which has been done by the people, in depth studied to what has happened in the society can be included into waste planning section created by the government.

The distinction between theory in planning and theory of planning will not result a clear distinction between both of it. Both types are needed in order to produce effective planning planners should look at procedural theory as an envelope to get to the substantive theory and vice versa. In the further development, planning theory is often more likely into the theory of planning than theory in planning. Faludi is closer to the theory of planning in his thought.

The planners, especially from the government, are unconsciously influenced by the theory of planning or technocratic which often ignores the nature planning in planning theory or substantive. These conditions will have an impact on the content rather than less responsive planning or touching the actual needs of the society. Furthermore, in the implementation is also less involving the society participation.

The planners, especially from the government, should learn from the experience so far less attention at once combines both theories. In fact, theory of planning or procedural planning is often perceived failure.

Planners understanding become the focus of attention in creating a plan that includes procedural planning with substantive planning. Procedural planning which generally available recent day depends on the administrative aspects where planners who become more pragmatic will be quick to adjust because they are often more inclined to those plans. In the opposite case, theory in planning or substantive planning will be much closer to offer a solution to solve the real issue which becomes the focus in planning, thus substantive planning creating flexibility of planning outcomes that have been made.

In practice, it should not be separated between the theory of planning and theory in planning. Instead they will be expected to form a collaboration called as the effective planning by Faludi [9]. The position of planning theory in the public domain forces the existence of this collaboration. Nevertheless, not an expert planner may master the various science disciplines in detail he should be supported by experts of other disciplines. Even extremely, Faludi [6] described the existence of a clear relationship between the procedural theory and substantive theory.

In the theoretical concept of development planning is influenced by two theories that have been difficult to integrate that "human needs-centred" (orientation on human needs) and "sustainable development" (sustainable development). In fact, development model such as Liberal Capitalist democracy, Communist, Sarvodaya, Islamic Revival and Theological Freedom. The use of the "bottom up" approach as exemplified by Dwivedi and Henderson [10] recommend creative strategies to strengthen the local economy of the poor and small communities.

According to the Human-Need-Centred Development (HNCD) theory which explained that the government policy, development and administration must be able to reconcile human needs. HNCD theoretical model also recognizes the economic, political, social and moral are integral part. Basic human needs that become the focus point of HNCD turn challenging business needs as humans. The HNCD put "people" as the central point of thinking and determinant factors and approach participation. This flexible approach depends on the political situation of the country with the same purpose. Society and government are expected to have a noble moral in their actions with the ability to implement effective administrative, and put the human factor as accountable staff to the public in serving the needs of the public.

Sustainable development which depends on social consensus recognizes the need to protect the sources of human fulfillment "people". Its success depends on the input policy makers, ecologists, economists, and including individuals from the lower classes. The sustainable development combines resource management with the production, availability of sufficient work, food security, openness of access products, distribution opportunities and equitable distribution of resources between gender and intergenerational.

Participatory Planning

Development paradigm that focuses on human development, its implementation was required direct participation of society as a target, it can be seen in society involvement as a target group, so that the success of the development will follow what is needed by the society. Thus it can be ensured the implementation of the

development will have an impact in the form of outcomes and benefits. That is the importance of the direct involvement of society participation to measure the effectiveness of a development planning.

The meaning of development in this case is to improve the human resources especially society through direct involvement in the development from the beginning to the end of the development planning process and development evaluation, so public participation necessarily must be involved by government. Here, society needs to be given the power and authority and participation in the management and development. There are three main reasons according to Conyers [11] about why society participation has very important properties, namely:

"The information obtained is a true picture of what is needed by the society and know the actual characters in the local society. Then, the programs that will be implemented in the society will be more easily supported by society participation, because the local society considers that the program touches on their needs. Furthermore, it would seem that the program created earlier is the result along with society participation"

Why participation becomes essential, according to Tjokrowinoto[12] in his book entitled "Bureaucracy in Polemic", there are several reasons of the importance of society participation in development, namely:

- a. Society is the focus and ultimate goal of development.
- b. Participation is self-esteem and personal abilities participate in making decisions that affect the society.
- c. Participation led environment as an overview of information about the phenomenon of society.
- d. Participation should begin from public existence until the concerning problem of its potential.
- e. Participation will add insight to the recipients of development activities.
- f. Participation can expand government services to the public.
- g. Participation encourages development.
- h. Participation ensure manicured environment.
- i. Participation is an effective technique for growing society resources in accordance with the conditions of the region.
- j. Participation is understood as an expression of individual rights in the engagement.

Development planning that stands on society participation will be in accordance with the expectations of society that subsequently led to the development planning of development projects that are useful and used by the target group. Thus the human quality development goals will only be achieved if the society through non-governmental group has a greater opportunity to be involved in every process of development.

MATERIALS AND METHODS

This research is done to know, to describe and to analyze how waste management planning at Malang City, how important the community participation in waste management planning, waste management planning and to find waste management planning model.

This research uses qualitative descriptive by explaining research object in comprehensive by interactive model with data collection, data reduction, data presentation and drawing conclusion. To strengthen research result, we added Analytical Hierarchy Process (AHP) model to support conclusion.

RESULTS AND DISCUSSION

Waste Management Planning Conducted by the City Government of Malang

Top-down planning is the way how the planning done related to waste management planning. Planning theory in this case is the rational planning based on a comprehensive view of the system and strives to provide a comprehensive view of all aspects associated with living systems and system which is not associated with life. The rational planning theory requires reliability, availability, and validity of the data is very high, so that the quantitative measures are a prerequisite course of a comprehensive view of a system that will be planned. While on the other side, particularly, the quantitative measures often disregard the meaning and interpretation of the collected data.

The availability of accurate data and a comprehensive view is an absolute requirement in rational planning (related to waste). The recording and data process are big problem for the Indonesian nation, and no exception to DKP of Malang. Incomplete/ inaccuracy data resulted wrong planning in reading the conditions in the future. Results show the lack of planning as referred to in this study, means planning understood by DKP of Malang City is a DKP planning as an organization is not waste planning.

How does waste management can be done until now. Waste management which implemented until today based on the Indonesian National Standard (INS) 19-2454-2002 of Procedures for Management of Urban Waste Operations Engineering regulating the transport of waste from the source of waste (household) until the Final Waste Disposal (FWD). INS begins with an overview of the provisions of the waste that is: the scale of the service area and waste vulnerability maps. Both of these items are not owned by DKP Malang City or if they have both the items and even had waste planning documents, from some of the speakers do not understand about

the Malang City waste planning. On the other side, speakers stated that the basic daily tasks are only about transporting waste from the TWD to FWD and other daily techniques that need to do.

DKP organizational structure needs to be modified to develop the concept to reduce waste volume. This adjustment is the bureaucratic demands of waste control and needs of the society in improving the economic and environmental sustainability. This situation supports Heckscher and Donellon [13] "idea of the Post Bureaucratic Organization. Future organization is not only put themselves in the internal coherence and centralization of power, but also focus on the external and social interaction associated with it".

DKP organization is part of a larger organization that is the Government of Malang City. Adjustments that applied take time, whether the addition of the section can be approved or not by the various parties of stakeholders to the mayor's decision issued of a new organizational structure. The existence of an important section of the utilization of waste becomes important at the time FWD SupitUrang progressively narrower due to the amount of waste that goes to FWD every day. The acceleration of change in the organizational structure in the business of environmental needs and adjustments become a separate business because of the slow changes that can be implemented as a result of changes in the procedure itself.

Supervision of waste management can be said that escape the attention of many parties. Surveillance in general is the usual oversight institutions done by the inspectorate. Parliament according to the data did not carry out supervision of waste management, inversely proportional to the producing agency. Waste still be an object that must be removed whereas waste which is properly managed capable to produce significant economic value. Society reports the condition of waste that is not transported in TWD or another reports related to the handling of waste is a form of public awareness of the waste management process. The role of Parliament or other stakeholders are expected in the improvement of waste management in their entirety from the source of waste to FWD.

Public Participation in Waste Management

Public participation in waste management is not too much meanwhile in Malang Baru City, its society able to make the use of waste by 10 % of the total waste that goes to FWD. Oriented development planning which involving the target group will be created development projects in accordance with the resources, conditions, needs and potential target groups. With this conformity, the society participation in the implementation of development programs will be high and the next level of development projects that will benefit the target group and utilized. Thus the human quality development goals through society participation will only be achieved if the society through self-help groups has a greater opportunity to be involved in every process of development.

Participation reason, as said Tjokrowinoto [12], which is people focus and aim at the end of development, participation is a logical result of the argument. Public participation in general in waste is transporting waste from household level to TWD. Transportation is carried out by non-governmental and applicable in all settlements. Public participation in waste management is the use of waste to worm farming, passion fruit, scraps business, recycling and utilization of waste plastics.

Waste management is an activity that can involve the whole society elements. Residential communities, businessmen and financial institutions, environmental activists and public figures can go hand in hand with the local government to manage waste. Residential communities can provide participation by sorting waste, businessmen and financial institutions can provide financial support, environmental activist role disseminating information and directing people to maintain cleanliness and public figures can provide guidance to society to manage waste. Waste management is only charged if the waste to the local government can never be effectively transported where the officer certainly would have trouble hauling waste from the household level. Deduction factor of society participation in waste management that 10 % would not exist and all the waste directly goes to FWD and accelerate full of garbage in FWD.

In the perspective of the New Public Service (NPS) brings a change in the way people view of the governance process, changes in viewing what is meant by the public interest, a change in the way the interests held, and changes in how public administrators perform tasks to fulfil the public interest. This perspective emphasizes the position of the people as citizens in the context of governance. This perspective brings democratization of public administration. Citizens are human, so either the new public service, a comprehensive theory by Faludi [9] which involves social, political and other aspects and HNCD approach by Dwivedi and Henderson [10] shows that any development must see that human is the subject and also development object. Development which destroys nature will result in damage to the quality of human life. Flooding during the rainy season, for example, will provide trouble for humans to fulfil the quality of life needs.

Employees in government should serve and be able to see the reality in the field as well and become a facilitator of public interest and participation. Employees who cannot put themselves in the role of the waiter will lead all aspects of planning that earlier made will never be implemented. Participatory planning can be achieved when employees/officers/officials are able to put themselves as servants who deliver services to the society from a variety of viewpoints, a combination of top-down and bottom-up. The concept of participation is an integral concept in Faludi [6] view regarding the planning is procedural and substantive, became a major

point of departure in HNCD perspective and make public services that require public participation in various levels of government in which public participation is an important element in the NPS perspective.

The four actors who exist outside government agencies, each actor has a different role that can be run on waste management in Malang City. Residential communities, as source of waste, have role associated with patch, 3R (reduce, reuse, recycle), and processing. The 3R role and processing that have been done by residential communities to help reduce waste that would go to TWD or FWD, because the waste is changed to increase the value of waste that has been produced. While the patch role is more to facilitate janitor in waste transporting, because this patch role will be done through the wet and dry waste.

Businessmen and financial institutions have a utilization role, CSR, and processing. The focus of the private to get profit is done with the use and processing. The work done by businessmen and financial institutions will directly reduce the waste that would go into FWD. Meanwhile CSR which is the responsibility of businessmen and financial institutions in the society is a concrete form of venture capital or infrastructure support.

The role of environmental activists is more as a motivator and processing. Environmental activists provide an example to the society to do better waste management. In addition, environmental activists as a motivator must be able to create innovations for waste management, such as garbage insurance, waste banks, and other waste management innovations. Environmental activists role in Malang have been quite significant, because the environmental activists have been done many innovations and accepted by society.

Public figures as one of the actors, have a role as mobilize and exemplary. This mobilize role can be done because public figures have access to mobilize society. Exemplary role, done by public figures, caused by public figures are influential persons in the society itself.

The Concept of Participatory Waste Management Planning Model to Achieve Environmental Preservation Procedural

Malang Government through the DKP in the implementation of waste management planning should draw up a budget is not only limited to roles, responsibilities, and functions, which only allocates facilities and infrastructure are routine. Budget planning must look at the needs of waste management from upstream to downstream which always responds innovations from around stakeholders about how waste management can be good and beneficial for all parties, both from the aspects of the environment and the welfare of society.

Sufficient budget is a condition of success in waste management, as the results of done by Hartanto[14], which states that: the factors that affect the performance of waste management are the number of personnel and infrastructure is still very limited, un-optimal haulage operations. All of these factors may not be able to overcome if it is provided by limited budget.

In line with the findings of research done by Khalil and Khan [15] which says that: waste management using only caused by the available fund for waste management is still very limited.

Waste management services in almost every local government are not optimally done even neglected. It is associated with environmental problems, particularly in large cities in Indonesia. In fact, it is normatively been set with the Law Number 23 Year 1997 of Environmental Management, but the effectiveness of its implementation have not been able to achieve the expected goals because of problems at substantial issue, structurally and culturally. Then, a new regulation namely Law Number 18 Year 2008 of Waste Management and Law Number 32 Year 2009 of Protection and Management of the Environment issued as a new instrument of implementation of future policy which has an important role. With the law that recently issued, national and local governments are obliged to make strategic environmental assessment. Study ensures sustainable development has become a basic and integrated into policies, plans, and development program. Use of natural resources must be based on protection plans and environmental management (PPLH) which became the basis of long-term and medium development plans. Government regulations issued for the implementation of household waste management and similar household waste was Indonesian Government Regulation Number 81 Year 2012 of Management of Household Waste and Similar Waste Garbage Houses.

So, the seriousness of the government in managing waste can be seen with the regulations issued. Rule of law is the basic law of the government to run a policy into its maximum, beside that a policy should clearly include and consider all aspects relating to the policy. The aspect is as listed with the theory above, in the form of standards, directives/guidelines, mechanisms, impact, and evaluation. From Local Regulation and Mayor Regulation of waste management in Malang City has not yet been able to implement regulations to the maximum. This is indicated by the lack of serious evaluation and mentoring from Malang City Government in reducing the amount of garbage in Malang City.

The application of planning theory that leads to a pluralist society view required a thorough understanding of the pluralistic nature of society through several approaches, including incremental, trans-active, advocacy, and radical planning [16]. Rational planning (Rational Planning) or often called a comprehensive plan (Comprehensive Planning) is basically a framework or method for decision making approach that arranged in orderly and logical [9] Rational planning approach that considered to be a gradual procedure done by systematic

ranging from problem diagnosis, formulation of objectives and goals, determining alternatives set to achieve goals, determining the best alternative in the future as needed until the implementation of the action [17].

Opinions about rational planning (Rational Planning) or the comprehensive plan (Comprehensive Planning) is basically a framework or method for decision making approach that arranged in orderly and logical [9]. During its development, the theory of planning must have the support of other disciplines to provide the study at an incident. Support is needed as the capital of observing and media explanatory, such as; social sciences, mathematics, environmental, civil engineering, architecture and others. Substance absorption methods from other disciplines often referred to as a substantive theory or in planning theory known as the theory in planning, while planning theory called a procedural theory or a theory of planning.

These conditions, if we look at the most important function are to understand the interests of society and to have sufficient knowledge to measure the estimated effect of the proposed action against the public interest [9]. In addition, the lack of garbage vulnerability maps makes knowledge planner information still only owned and controlled by certain people and most likely the information cannot be used. Whereas the outlined information will make it easier for planners to manage waste better.

The society obviously has a different purpose from one person or one group with another person or group, then to draw up a comprehensive plan, planners should assume that the goals of the society are manifold, however, can be measured even though the general interests cannot be incorporated into the hierarchy of public purpose [9]. This opinion when associated with waste management planning will be giving a lot of sense and planning accuracy. Participating society can utilize waste formally supported by the government in addition to support Malang Waste Bank.

Thus, the lack of synchronization between design planning made by the government with the needs and goals of society is rationally found. The combination of these two things is termed by Faludi as "procedural and substantive planning" are trying to mix and match between these two aspects to produce a good plan. This supports Mazza [27] picture of planning that the incorporation of the rules are made with the purpose of planning, theoretically form a part of the space (spatial form) which in a hierarchical manner will result hypothetical reciprocal relationship between people and space or its natural environment, the need political policy, and planning as part of social learning (planning as a learning process). Diagrammatic, this statement is described in the form of derivatives pyramid, as part of the planning process. This pyramid is called the chart of technical knowledge and action plans that describe social relations in the planning process in order to obtain an efficient form of space.

The best approach is to be people-centred development in order to repair and improvement of environmental preservation. This means that people can make use of waste and generating economic value so that the welfare of society might also be raised, it will be different if waste managing done by the private sector. If the waste is managed directly by the private then the public will not get any benefit from the trash, on the other side unemployment and poverty in Indonesia is still relatively high.

According to Dwivedi and Henderson [10] that society involvement in waste management becomes very relevant when referring to the ideal type of development that is the human-needs-centred development (HNCD) model. This model is an alternative model to manage development. HNCD model recognizes the economic, political, social and moral theory as an integral part. Basic of human needs become the HNCD focus point, yet challenging questions of HNCD is "how the individual needs can be satisfied?". HNCD trying to put the "people" become the central point of thinking and deciding factor in participatory approaches. This approach is very flexible depending on the country and the political situation but have the same goal. In this case, the public servant and the government is expected to have a noble moral in performing their actions, have the ability to carry out effective administration, and put the human factor into the main require staff accountable to the public in serving the needs of the public. Individuals in the society should be recognized and served with dignity and respect; in this case the officer arrogance must be removed including favouritism and corruption. This model is an alternative model proposed by Dwivedi and Henderson after a review of the various models of development such as Liberal Capitalist Democracy, Development Communists, Sarvodaya, Liberation Theology, and Islamic Revivalism models.

Implementation of the program is its emphasis on the human development of "sustainable human development" as HNCD aims to meet and develop "human choice" is not just dwell on the issue of revenue itself, but also with respect to the global assessment of "human progress" that has been implemented. Implementation is done in each country is different and varied approach in creating models of human needs with the goals that lead to "sustainable society", this is due to the characteristics of each country is not same with each other.

The government supported the creation of MWB and the role of employers/society in the utilization of wet waste. Utilization of wet waste that has been done by people happens to worms or passion fruit cultivation. The role of the government becomes increasingly significant if the government also encourages the formation of user groups waste to the RT/RW and not just stop at the effort but the effort is put in the waste management planning with adequate budgetary support.

Observations and research of waste planning, encourage the formation of a planning concept that integrates all the theories in which Mazza[18] describe the planning process in the form of space. The space is filled by a variety of other planning perspective. This study suggests to in-corporate procedural and substantive with society participation. The government made plans to absorb a variety of sources substantive aspirations, following the waste management procedures set out by government and build society level of waste management to reduce the volume of waste and provide economic benefits. The beneficiary garbage is still in minimum number, encouraged by the government so the number of waste beneficiaries become greater and give significant waste reduction positive impact.

Substantive

Growing waste problems are not controlled in Malang, because a lot of people who do not care about the dangers of waste. Currently, people who concerned with the waste, are trying to establish cooperation between communities in tackling the waste problem. Waste affairs should not be the responsibility only for the government, because the government will not be able to handle waste. The cooperation between the society and government stakeholders (stakeholders) or other parties to mutually overcome the waste problem is actually needed. Waste management in the current TWD must also be able to empower society living in the vicinity. The society should have a concern in the waste management planning. Desired waste management should be managed and organized together. Examples of such MWB (Malang Waste Bank), scavengers and residents gather to set up user groups are formed based on proximity waste location (RT) in which it collects plastic waste and clean up. The group or other groups not only collect plastic waste but variety of other types of waste depends on the characteristics of the region. In some groups who have expertise in processing waste into craft items, this skill is only limited to a certain group. Results in the use of waste deposited into MWB for further marketed. Furthermore, the marketing was saved in MWB. Money saving is what members taken when they need to pay the education coaching donation, electricity, water, pulse, telephone and other needs.

People who want the cooperation between society in addition to preserve and to be free their environment from household waste and also can do hospitality with each resident because they have their own business so the sense of family increasingly lose. Residents who want to establish cooperation with official institutions have hope that this management can bring high economic value so that the presence of formal institutions can be used as an umbrella company that is jointly able to gain knowledge and experience in entrepreneurship. Positively associated with social conditions, Malang City Government need to respond to it as soon as possible, so the waste management in Malang City is not only the responsibility of government, but together with the rest of society.

Malang public attitudes towards waste reduction is various, it affected by their environment. The environment that aware of the importance of environmental hygiene and realized of the waste benefits automatically that society will care for the waste. People are very complex to behaviour and culture, about their relationship with the waste, there are people who participated in waste management, meanwhile some are ignoring the waste, so the two habits can be seen the effect whether the society care or not. Habits of the people in managing waste from household waste to FWD have begun to be improved. In accordance with the observation that the use of recycling waste for sale can be used by society so people get the economic value, but it can also aided the government in managing waste, so it will indirectly increase the income of the society, and reduce unemployment.

From three descriptions above (aspects of the residential environment, social aspects, and local knowledge aspects) show that waste management in Malang City on the environmental aspects can be initiated by sorting waste from the source (households). From the social aspects, need to continue cooperation between citizens and the government stakeholders (stakeholders) from or other parties to mutually overcome the waste problem. From local knowledge aspects, behaviour and culture that are very complex from positive side can be potential in managing waste if people are given a clear understanding and motivation about the benefits of waste.

Malang City produce high enough waste which amounted to 400 tons in 2011, in 2012 increased by about 450 tons and at the end of 2013 reached 600 tons per day. Final Waste Disposal (FWD) in Malang city is located at village Mulyorejo, area of district Sukun with the spacious plan to reach 25 ha meanwhile its spacious right now is only 15 ha. The volume of waste entering the FWD capacity has been exceeded. Now, 75 percent of 15 hectares total area has been filled by waste and is expected to be full in the end of 2014. Procurement of 10 ha additional will not make it lasts that long. In 2013 the addition of a new area reached only 2.5 ha which is administratively located in the district of Malang. The principle of the 3R (reduce, reuse, recycle) is important to begin immediately, but as the development of 3R principle is supplemented with one another principle, namely Recovery.

Efforts to reduce the amount of waste disposed from the beginning of the source expand the use of waste materials that can be recycled. These efforts should be encouraged by the central government which until now has not seen a significant step in the public life behaviour. Rules are made to be able to make an introduction to the people, especially producers in creating the goods/products that can be recycled. In principle, the 4R until now has not been effectively done at various levels of national, provincial and local.

FWD SupitUrang operators have already taken several steps such as the use of composting waste or banned step that is the scavengers that operate in the landfill. In general, Malang City waste management has not moved from simply taking out the trash from the household level to FWD. Changes in work patterns of waste management should be done either in city government or in society itself. Urban socio-economic conditions are easier the government in waste management synergy with the society. Society involvement in reducing waste that goes to FWD has been long done. Scavengers and junk collectors exist around our lives.

The social aspect can be removed and used as part of the waste management planning so planning that has been made that does not leave what has been done by the society. In the perspective of communicative planning and collaborative planning is yet to discuss the possibility of social and cultural structures that may support or may be able to disrupt the planning. Therefore, the social and cultural aspects should be an integral part in the making of planning to enhance planning and implementation.

Local culture or cultural wisdom or wisdom as part of practical reason (practical reasoning) in addition to the planning of scientific knowledge (knowledge of science), which is owned by the planners, so can explain the position of the local cultural considerations in planning theory perspective. This explains and confirms that local wisdom is formed in society should not be abandoned as a material consideration in planning theory. Existing local wisdom is a scavenger and junk collector, the future planning does not leave two informal employment sectors. Humans are the center of development planning, which means planning is not to change something that is positive in the society and change into a new form of society. The formation of the new society culturally will take a long time in the formation and become ineffective when compared to a plan that includes local wisdom in it.

Malang Waste Bank (MWB) is an organization that managing both of organic and inorganic waste. The organization received support from the government and can reduce waste around 1-2 tons per day. One worm farmers and the new MWB are able to reduce about 4-6 tons of garbage every day from 600 tons of waste. Total waste that used by the public only about 10 % of the total of 600 tons, the rest went to the FWD. Limitations of the use of this waste can be a valuable opportunity for people to economic and extend the life of the FWD.

Waste is still considered as the goods which must be removed and kept away from the house and the waste is still one eye considered especially for people who have high economic capability. High economic capability possessed by some segments of society are not necessarily eliminate his responsibility as a human being in maintaining the environment one of its manifestations is the use or purchase of goods that are not destructive and polluting the environment from the goods that can be recycled or items that do not interfere the health of excessive plastic use, for example, will increase the volume of waste. The formation of society groups concerned about the environment should begin in earnest well supported and promoted by the government or run by the society. At a minimum, the desired result is to remove waste by sorting or even willing to contribute in managing waste to be more effective in the form of funds, the budget or the idea of waste management. Levels of down to the middle society are expected to participate actively in protecting the environment through compliance with good waste. User groups waste can be created in each district, for example, will be very beneficial in reducing the volume of waste that exists today. Calculation of the quantity of waste until now becomes the fundamental question when the volume of waste becomes unmanageable every day until the full capacity of FWD to accommodate the waste.

The function requires that the comprehensive planning must understand the interests of the society, and have the knowledge to measure the estimated effect of the proposed action against the public interest. Structuring the environment related to waste, hazardous materials reduction, reuse, recycling and other steps are performed is crucial in maintaining the cleanliness of the environment and environmental preservation by maximizing society participation in managing useful waste and economically valuable.

Dwivedi and Henderson [10] opinions in accordance with the main principles of planning that is designed for humans (human beings) (O'Harrow)[19]. Planning is not a normative (ought to be) or how the product planning (how planning is), but must be interpretative, applicative, adaptive and learning (Friedman)[20] Human-Need-Centered Development (HNCD) explained that the government policy, development and administration must be able to reconcile human needs. HNCD put "people" as a central point of thinking and determinants and participation approach. This flexible approach depends on the political situation of the country and with the same purpose. Society and government are expected to have a noble moral in their actions with the ability to implement effective administrative, and put the human factor as the accountable staff to the public in serving the needs of the public.

Sustainable development relies on social consensus recognizes the need to protect the sources of human needs fulfillment ("people"). Its success depends on the input policy makers, ecologists, economists, and including individuals from the lower classes. The sustainable development combines resource management with the production, availability of available work, food security, openness of access products, distribution opportunities and equitable distribution of resources between gender and intergenerational.

Procedural efforts are more focus on the business which can be done to reduce waste in accordance with existing procedures, including: management, patch, collection, society participation, the final plan of waste, removal, reduction, selecting the household level, and processing. The purpose is done on this aspect is in

addition to reducing waste that would go into FWD, as well as to facilitate the process of waste that goes to FWD because on this election there is a sorting process between wet and dry waste.

CONCLUSION

1. The Waste Management in DKP of Malang City as follows: there is no comprehensive plan on how to solve the waste problem that will arise in the future. Business management and use of waste become important to be maximized in order to reduce the increasing volume of waste that goes to FWD every day and threatened to be full and the need for supervision of waste management is still very minimal and rely on society participation in providing information in the field of waste management.
2. Role residential communities, businessmen, financial institutions and public figures are very important in efforts to reduce the volume of waste, but on the other side, not all society elements have environmental awareness and society participation which is only about taking care of cleanliness is not yet at the stage of waste management.
3. Procedures of waste management in Malang City are still not fully in accordance with INS. The procedure is not in accordance with the INS example: mapping patterns of waste management that illustrate the vulnerability of waste management and mapping patterns that describe the pattern of problem solving capacity planning (includes tools and personnel), the type of facilities and infrastructure, potential revenue and services as well as the assignment.
4. Role of the society in utilizing the existing waste in the society such as MWB, businessmen who make the use of waste and also other activities can reduce the volume of waste by 10 %.

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