

ERGONOMICS POLICY IN INDONESIA

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Workers' conditions in accordance with their place of work are different from one area to another, especially in this reformation era where there are immense alterations in politics shown from the centralized government shifting to decentralization and district autonomy. Ergonomics problems in Indonesia are reviewed. In home industries, workers have to adjust themselves to their jobs, and ergonomic improvement may face significant impediments especially in small-scale industries. It is necessary to create or identify the most plausible model to be implemented in accordance with the conditions of districts, including low awareness about the relation between ergonomics and workers' productivity in producing goods and services and working processes scattered often at their own houses. As conditions conducive to ergonomics programs, district-level willingness to improve and increase the wealth of their society, recognition by businesses about the impacts of ergonomics on productivity and reduction of medical treatment costs may be mentioned. Labor unions support ergonomic improvements at production processes, and professionals and academicians are ready to assist, whereas national banks and foreign investment may encourage new technologies including ergonomics aspects. It is important to strengthen ergonomic improvement efforts in Indonesia through establishing district ergonomics improvement networks and ergonomics peer leaders with the support of continual training starting from the training of core leaders at the province level and extending to peer leaders at district level. This training should be made as simple as possible in order to facilitate innovations toward changes. Finally assistance is needed by the mentor teams in order to periodically monitor the improvements undertaken.

Key words: ergonomics policy; Indonesia; ergonomic improvement; productivity; networks.

INTRODUCTION

Indonesia is the largest archipelago country in the world with 18,000 islands, although only 6,000 are inhabited. The islands stretch along the equator for more than 5,220 km. Indonesia comprises a sea area of 7.9 million square kilometers and a land area of 1.9 million square kilometers. Indonesia is the fourth most populated country in the world after the United States with 217 million people (2004), with the population growth rate of 1.49 % per annum. The population is not equally distributed. Analyzing the density by the bigger island, the island of Java and Bali is the most densely populated where about 59 % of the whole population live in the area accounting for only 7 % of the total land area, and the rest live in Sumatra, Celebes, Kalimantan and Papua. The populations in Papua, Mollucu and North Mollucu account for only 2% of the population but this area corresponds to 24 % of the land.

As the conditions of manpower influence the development in each region, the availability of skilled manpower influences the economic development and growth in particular areas.

Indonesia is under transition from agriculture to an industrial country. Much development is in progress, and there is a high rate of urbanization as most industrial centers are located in large cities

on the island of Java. They were 153.9 million manpower in 2004, the labor force accounting for 104 million. About 61.25 % of them resided in the Java Island.

The unemployment rate in the year of 2005 has passed the 10 % psychological barrier, and it is still rising. Most of the workforce is in the informal sector, accounting for about 60 %. The informal sector includes agriculture and processes that support agriculture (43%).

In 1970, the government issued Act No. 1/70 on Safety in Workplace, which was a milestone for the implementation of occupational health and safety. A new act of 1992 on health No. 23/92, mentions that occupational health has to be applied at the workplace.

The development of ergonomics in Indonesia has followed two routes. The first is through non-occupational health and the second is through the occupational health field. This paper will explain more on the policy development for ergonomics as part of occupational health as the second route.

1. Ergonomics problems in Indonesia

(a) Decentralization era and district autonomy

Entering the new millennium, Indonesia has chosen decentralization as its primary policy. The process of transition was not going very smoothly. The awareness of being responsible for improvement of welfare of its people by the local governments was not always well advanced.

On the other hand, the autonomy of the local government may change the priority of development of the districts according to their political needs, not to the needs of the people. This can be clearly seen on the organizational structure for the health district offices that are not always following the structure at the central level. The occupational health unit is not always included in the structure, and this means the lack of budget, often leading to inactivity.

The next biggest obstacle is the availability of health manpower for occupational health observed in most parts of the country.

(b) The condition of ergonomics at the workplace

As mention above, the number of informal sector workers is larger than that of formal sectors. It is therefore logical that most of the ergonomics problems are found in the informal sector. The Muscle Disorder Symptoms (MSD) are the most frequent complaints of the workers. The workers in the formal sectors, on the other hand, are accustomed to using equipment and to conditions that meet the standards for ergonomics.

The informal sector usually comprises small and medium-sized businesses. In the informal sector, the knowledge on ergonomics of the owners and the workers is very limited. The lack of capabilities on ergonomics or occupational health is the main barrier for having an ergonomically better workplace. The use of old work methods and non-ergonomic equipment in their workplace is also due to limited work capitals. The owners of the businesses are resistant to change, as they are hesitant to explore new methods that may benefit them in their work processes.

Industrial characteristics in Indonesia: the nature of business

Generally, most of the workers in Indonesia work at home and that is why their workplaces are called home industry. They utilize various tools and provisions available at home. If there is a wooden bench in front of their houses, they will use it as their working place. If there is no other thing to be used, then they work on the floor or on the ground. As we all know, the use of ergonomics is about how the process of work is adjusted to the workers and not the other way round. On the contrary, these workers have to adjust themselves in accordance with their process of work dictated. Usually, they have no idea about how to make the work process more comfortable so they can improve the productivity.

The limited work capital is very common in Indonesia as in other developing countries. Yet if we think of it positively, capital is not always connected with money, but may consist of thoughts, ideas, innovation, and even more. The limitation of funds can be overcome through approaches done by mentor field officers who know well about ergonomics in applying some simple ideas by giving

examples such as placing a long table facing the workers' wooden bench so that it enables them to use the table to prevent a bending posture while working, and giving them ideas of utilizing work tables that may prevent them from suffering back pain. Many other simple things can be used to organize ergonomic conditions without spending much cost. It can be different if the workplace is a large service station and separated from house buildings. In such cases, the employers need monetary funds for implementing ergonomic improvement, but they have to bear in mind also that ergonomic improvement may lead to better revenues exceeding the expenditure for the improvement.

Resistance to change

At the beginning, the ergonomic improvement may face significant impediments especially in small-scale industries. It can be understood since the small-scale employers tend to be allergic to anything related to changes; it may even get worse if the employers are not well informed. Their way of life is: "if it can earn our living (even if it is not much), why do we need change?"

In order to change a way of life of these people, we need persistent patience and time. An agent of change or a volunteer in ergonomics coming from their own community is badly needed. Through intense training in ergonomics, these volunteers will have the capability of detecting simple ergonomic problems and solutions. They will assist the community in providing information or providing real examples using simple tools from the vicinity in solving ergonomics-related problems. Then, the volunteers may ask the workers about how they feel the difference, and this may facilitate overcoming the existing barriers.

The role of the local government

The local government holds an important part in apprehending policy on ergonomics. Their support for the implementation of ergonomic programs in the district is very essential, because they can pass regulation and funding which will improve ergonomic solutions. We have to advocate to the local government how occupational health, especially ergonomics, can improve the productivity of workers in their district or town. We should convince them to realize that the improvement of productivity at the end will increase the district revenue. The solutions mentioned above have to have the involvement of the District Health Office and its Network of Health Centers and this needs the political approval of the local government that consists not only of the head of the district but also the local parliament. There have to be program holders at the district level. There should be a structure in the District Health Office and the health center comprising units that are responsible for occupational health and ergonomics.

Awareness of the employers/owners/banks

Most employers/owners of medium or small businesses usually are not aware of the relation between ergonomics and workers' productivity in producing goods and performing services. By some improvements with sometimes little extra cost, revenue may improve. They need a forum where they can discuss or share experience and also develop ideas or invent better methods for their business. Actually such a forum already exist in more than 4000 of villages in Indonesia, in the activity called Pos UKK. In this forum, usually problems on occupational health and solution are discussed and supervised by volunteers trained on occupational health. Close supervision from the program holder at the District or Subdistrict Health Office will be powerful for promoting community participation in solving ergonomic problems in their workplace.

Processes and work procedures at home

In the informal sector, work processes are mostly done at home. The owners provide the basic materials to the craftsmen who bring them home to process them at their own houses. If they live within the vicinity, this is not a problem, but if their houses are far, the problem arises as the ergonomics workshop and the supervision by the mentors may need extra funding. It should be understood that trying to gather them will need a special effort, not to mention different conditions of

each home.

(c) The Directorate for Occupational Health, Ministry of Health

In 2001, the Subdirectorate for Occupational Health, which was then the unit of an echelon III, was expanded to become a Center for Occupational Health (echelon II), with three divisions. The Center for Occupational Health was very effective in developing programs and policies on occupational health. As the need has been recognized for a larger organization for the development of occupational health, the Directorate for Occupational Health has been formed, which serves as a division responsible for ergonomics.

The government has realized how ergonomics relates to problems such as symptoms of musculoskeletal disorders frequently observed. Although the unit was formed in December 2005, it was not operational until March 2006, as the search for suitable staff was not an easy task.

The new Division has organized meetings on ergonomics in developing strategic plans as part of its future plan. It is also revising the old guidance on ergonomics, and trying to develop a package of information on ergonomics useful for health centers and district health offices.

2. Policy on ergonomics

The policy on ergonomics should be instrumental as it can provide a clear direction for better planning, organization, implementation, monitoring and evaluation of relevant activities in order to attain the main objective agreed on by all the sectors through partnership and coordination.

(a) The objectives

i) General objective

To improve the ergonomic conditions by strengthening the partnership and cooperation among the stakeholders in achieving the most proper ergonomic conditions.

ii) Special objectives

- a) To strengthen the promotion of ergonomics through advocacy by partnership and cooperation at all levels with all stakeholders.
- b) To improve the manpower in ergonomics with an emphasis on the formulation of peer leadership.
- c) To strengthen the participation of local communities by improving the information package for professional and lay people.
- d) To improve the role of health institutions in improving ergonomics.
- e) To develop guidance and guidelines on ergonomics for the health institutions.

(b) The strategy of occupational health

The main strategy of occupational health is health promotion and prevention of occupational diseases. Community-level participatory approaches will be the leading strategy in tackling the problems. The occupational health, like other health fields, endeavors to focus on both public health and individual health. The government will be responsible for public health effort, and enterprises or the owners will be responsible for individual health.

A referral system has been developed not only for clinical health but also for public health.

(c) Cooperation among sectors

The main strategy in the implementation of ergonomics activities is to improve the cooperation among sectors and the entire stakeholders. At the local government, the cooperation among sectors has to be seen especially among the District Health Office, the District Manpower Office and the District Industry Office.

Cooperation within the members of the three parties has to reach the partnership level. Through this cooperation, ergonomics-related problems have to be discussed and solutions have to be agreed on. Both informal and formal sectors have to be involved in the effort.

Therefore, it is important in Indonesia to strengthen ergonomic improvement efforts through establishing district-level ergonomics improvement networks. These networks should include ergonomics peer leaders with the support of continual training programs starting from the training of core leaders at the province level and extending to peer leaders at district level. This training should be made as simple as possible in order to facilitate innovations toward changes. Finally assistance is needed by the mentor teams in order to periodically monitor the improvements undertaken.