



Korea–World Bank

ENVIRONMENTAL BRIEFING NOTE

# Environmental Management for Traditional Craft Villages in Vietnam

*The 1,450 craft villages in Vietnam* have greatly contributed to increased income and reduced poverty in rural areas. However, they have also caused severe environmental deterioration. They often waste resources and cause heavy pollution. They emit noxious gases into the air, and directly discharge into rivers untreated wastewater containing large amounts of toxic chemical substances. The development of craft villages exacerbated existing environmental problems in rural areas. Though the Vietnamese government and local residents have expressed concern about environmental problems in craft villages, they face a lack of administrative capacity and human and financial resources to deal with them. Based upon findings in the project "Research on the Scientific and Factual Basis for the Development of Policies and Measures to Solve Environmental Problems in Craft Villages in Vietnam" carried out by the Institute of Environmental Science and Technology (INEST), this note looks at the environmental challenges facing traditional Vietnamese craft villages and suggests policy recommendations and guidelines for environmental management (EM) in Vietnamese rural areas, largely based upon relevant Korean experience.

## Current Environmental Status of Craft Villages in Vietnam

Craft villages are Vietnamese rural villages with existing craft and non-farming activities drawing the participation of at least 30 percent of all households and making at least 50 percent of the village's total income. Out of the total of about 1,450 craft villages, 228 are traditional villages that have a long history and make products that are unique and typically Vietnamese.

Various environmental challenges in craft villages stem from the fact that recent rural environmental management has not caught up with economic development. The scale of craft production is rapidly

increasing, while investment for infrastructure is still poor. As a result, wastes exceed the natural cleaning capacity of the environment, causing serious pollution and affecting the health of community residents.

Environmental conditions and environmental impacts in craft villages have some common characteristics. First, the pollution is typically concentratedly in one rural area (hamlet, village, commune, etc.) This area contains numerous pollution point sources (small enterprises) that directly affect the surroundings, including residential areas. They therefore impose direct environmental risks on the public.

Second, craft-village pollution problems are more serious in the workplace (micro-climate). Almost all

parameters of the workplace-such as noise, light, vibration, humidity, and temperature-are above standard. According to the study by the INEST, 95 percent of workers are exposed to particles, 85.9 percent to heat, and 59.6 percent to chemicals in craft villages.

There are more diseases in craft villages than in agricultural villages. They are usually optical diseases, respiratory diseases, intestinal diseases, and skin diseases. In Dong Mai lead recycling village (Hung Yen), 71.1 percent of residents have mental diseases and 65.6 percent have respiratory diseases. There are 48 children with malformation, highest in the province, and 100 percent of workers suffer from chronic lead poisoning. In addition, people living in downstream villages from heavily polluted craft industry villages may be negatively affected through increased water pollution.

Production in some craft villages typically tends to lead to dangerous chronic diseases such as cancer, and heavy metal intoxication. This is the case in plastic, lead and metal recycling, and leather tanning craft villages. Health impacts are often more serious for women, including gynecological diseases and backache. The rate of respiratory inflammation among children is very high-80 to 90 percent in waste recycling villages. In Dong Mai lead recycling village, 25 children have mental disabilities, lame legs, polio, or blindness.

Lacking systematic and effective EM activities by government agencies, recent environmental protection in villages and communes depends on grassroots movements. Residents in craft villages have organized environmental sanitation activities in which core participants are members of the Communist Youth Union and Womens' Union. As yet, however, these movements do not amount to systematic EM activities. They are still limited to cleaning up roads, dredging ditches, and burning domestic wastes manually; there is limited budget and technical support for concrete activities like improving and building water drainage systems, wastewater treatment systems, and sanitary landfill sites.

### Issues and Problems of EM in Craft Villages

At present in Vietnam, governmental EM operates at two levels: (1) the central level, and (2) the

provincial/city level.

The INEST study shows that there are five significant issues affecting EM. First, at both the central and provincial/city levels, the number of staff in charge of environmental protection is too small compared to the given requirements and tasks, and the staff are not yet well trained

Second, there are no concrete regulations on pollution prevention, and even the existing environmental regulations are not consistent between central and local governments and among local governments. Especially at the rural level, the dissemination of legal documents on environmental protection has not been systematically implemented. Therefore, craft manufacturers are not aware of their duties and responsibilities for protecting their environment.

Third, the Vietnamese government is keenly interested in environmental infrastructure investment, but there are often few mechanisms to mobilize capital resources for investment, which has led to significant underinvestment in environmental facilities. The Vietnamese government has been making efforts to develop solutions to diversify investment into environment, and established the Vietnam Environmental Protection Fund (VEPF) in 2002 for the purpose of helping localities and enterprises to invest in environmental infrastructure. However, the investment is often not well organized, and the investment rate is still lower than in other countries in Asia.

Fourth, environmental monitoring systems are not yet firmly established. Environmental Impact Assessments (EIAs) and inspections are carried out, but they are still limited and far less than necessary to meet actual needs. A national environmental monitoring and analysis network is operating, managed cooperatively by Ministry of Natural Resources and Environment (MONRE), other ministries, and localities. However, monitoring frequency is still insufficient and monitoring points are scattered. Monitoring equipment also is insufficient and has not been standardized. There is still no monitoring station to measure waste discharge standards, and no national standardized laboratory under central EM agencies. As a result, data is not comprehensive enough to identify environmental issues and problems.

Lastly, production characteristics of craft villages

make streamlined and consistent EM difficult. The products of craft villages are individual and spontaneous; as a result, concentrated production planning and concentrated wastewater treatment systems cannot be achieved, resulting in failed effectiveness.

### The Korean Experience

Since the Five-Year Economic Development Plan started in 1962, the Handicraft Promotion program, the Saemaul factory, and Rural Industrial Park program have been dominant programs for rural industrialization in terms of scale and government efforts. In terms of rural industrialization, a significant difference between Vietnam and Korea is that Korean rural industrialization was accomplished based on a thorough separation of residential areas and production areas. In addition, contrary to the Vietnamese rural situation, most young rural residents in Korea moved to big cities to make more money during the rapid economic development era, and therefore rural areas could not provide enough human resources to factories. This was one of the most critical reasons for the failure of those policies in spite of financial and tax supports from governments.

Case studies on Korean industry similar to the Vietnamese craft villages found three main policies that contributed to rural EM and industry development.

First, Saemaul Undong (New Community Movement) is a government-driven rural community development project started in 1971. It contributed to an improved living environment, constructing basic infrastructure and increasing income in both farming and off-farming in rural areas. These successful results were achieved through the harmonized work of the central/local governments and cooperation from community leaders and rural residents. The Korean New Community Movement is a relevant benchmarking experience. It provided infrastructure construction as a first step for rural environmental improvement, increased rural productivity, and increased rural income. These were preceding steps to the accumulation of financial capacity for EM and spiritual enlightenment as a prerequisite for residents' voluntary participation in EM activities.

Second, the Rural Industrial Park Development

program is a recent rural industrialization strategy in Korea that followed the Saemaul Factory program. To raise off-farm income of rural residents, revitalize the rural economy and balance national development, the Korean government designated industrial parks in rural areas and supported them with various subsidies, loans, and administrative support. As well as economic benefits, it also cared for the rural environment by constructing common pollution abatement facilities in rural industrial parks.

Third, since the 1980s many small enterprises in Korea have participated in the SME (Small and Medium Enterprise) Cooperation Project to overcome the intrinsic limitations of SMEs, such as structural weakness, limited financial capability, and low-level technology. Currently, most major industrial parks in Korea are running on the basis of a cooperative union with industry. Although the SME Cooperation Project seems to be less relevant to the Vietnamese craft villages in terms of its scale, it provides some relevant experience to craft villages, which are getting larger in their production scale.

### Saemaul Undong in Korea

The New Community Movement, which is called Saemaul Undong, was launched in September 1971 as part of a large-scale national effort to reduce the rural-urban socioeconomic gap. From its beginning until the 1980s, Saemaul Undong mobilized a higher level of public participation in the decisionmaking process, in the benefits of rapid economic growth, and in the implementation of community development projects. Although Saemaul Undong was centered on rural villages, it was shaped and guided by Korea's strongly centralized administrative system. The Korean president's personal support for the movement supplied an impetus for building Saemaul institutional arrangements within government organizations and at local levels. The Ministry of Home Affairs integrated and coordinated government policies. The Saemaul Undong Central Consultative Council promoted and managed overall planning. Special divisions were created in ministries involved in rural matters—such as Home Affairs, Agriculture and

Fisheries, Commerce and Industry, and Education-and in local governments. The resources required for Saemaul Undong at the village level were provided by the government, partly as grants and partly as loans, but were mostly regarded as a priority in allocating government resources. Studies have found that Saemaul Undong made positive contributions to self-reliant rural development in Korea. It has contributed to capital formation in the rural sector in the form of physical infrastructure, improvements in rural employment and economy, changes in values and attitudes of rural people, the fostering of change agents, the promotion of participatory organization, and the rural development and nation-building process in Korea.

## Policy Recommendations

Based on the Korean experience and the structural analysis and investigation of problems and issues in the EM of craft villages in Vietnam, policy recommendations can be categorized as (1) capacity building of government and (2) local community and infrastructure provision.

In terms of governmental capacity building, suggested recommendations include promoting methods for environmental awareness of government and capacity building measures in policy setting, the preparation of applicable management plans, and monitoring and evaluation. In addition, capacity building is needed to improve institutional structures for efficient implementation of policies and incentive systems for regional governments and communes to enforce EM.

As Korea's Saemaul Undong shows, local communities play a very important role in EM in rural areas. At the local community level, we highly recommend the improvement of environmental

awareness through information dissemination, education, and training programs, and launching EM movements at the commune level in the form of regional agreements. Moreover, greater capacity is needed to build proper incentive systems and supporting schemes for the EM of individual craft houses.

It is also important to promote financing mechanisms-such as Korea's infrastructure provision practice, cost-sharing schemes, the inducement of private capital-to support the establishment and management of infrastructure. Efforts also are needed to build capacity for more efficient facility management. We suggest establishing public infrastructure companies and making them the foundation of the infrastructure industry, such as the waste recycling industry.

Although Vietnam's dynamic craft industry development poses a challenge with regard to how to perform good EM, particularly how to bring down their pollution loads, one advantage today is that quite extensive experience has been gained in other countries (including Korea and other countries like China) that could substantively and quickly contribute to improved EM. The intention is that this experience can be utilized in achieving both economic development and effective EM of Vietnamese craft villages.

## References

- Institute of Environmental Science and Technology. 2002. *Environmental status and effects of craft village activities on environment, socio-economic and public health in craft village in Vietnam*.
- Chae-Youk Cho. 1978 "Study on Rural Development in Korea." *Journal of Rural Area Development Study*
- Jin-Hwan Park. 1998. *The Saemaul Movement*. Korea Rural Economic Institute

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