

PLAN MEXICO

Integration of derelict mine and Railway sites into a Regional Development Programme

Victor Mauricio Terrazas Loya
Peyotl Group of Design
Chihuahua

ABSTRACT.- PLAN MEXICO presents how mining industry and railway systems represent at this moment the strongest proposal to reach a sustainable development in Mexico through the implementation of interpretation centres which would contribute to the regional development through out the country. The rehabilitation of derelict sites in both cases either for the original use or the intention to find new uses such as: technology centres, interpretation centres, public buildings or commercial. Creating a linked internal marked in the country and a whole industrial, touristic and technological infrastructure.

Key words: *Regional Planning, Sustainability, interpretation centres, mining industry, railway system.*

INTRODUCCIÓN

Spatial Planning requires the participation of every activity in order to get the proper equilibrium for a sustainable development. Mining it used to concentrate too much in the mining activities omiting its relationship with society and in many cases with careless towards environment.

That overall view has changed and it is making its way in order to get mining processes to be included into the Land Use Management Plans. The idea is supported by several organizations worldwide, including both, government and private sector.

Many mine sites in Mexico are in derelict conditions with a legacy of many environmental problems. As there are not economic reserves to solve them, it will be very difficult that the mines could solve the problems themselves, so there is necessary to find some alternatives which could contribute to rehabilitate the sites and at the same time reincorporate the participation of mining industry into the community.

The proper rehabilitation of mine sites represents the opportunity to achieve the support of society to accept the implementation of future mine sites into the Land Use Management Plans. By the presentation of good practice samples will soften the refuse of society for the oppening of new mine sites.

Other industry which has suffer from derelict problems is the Railway systems in several Latin-american countries and they are now in a similar process of reconversion and rehabilitation.

Several international organizations are working towards the same target closing the gab between the most advanced countries and those under development process.

Independent initiatives does not seem to prosper as much as those involved in these international or even national programmms.

Plan Mexico pretends to encourage regional development to a national level based on the use of that underuse infrastructure of mining and railway system.

MINING

Potential

- Location in urban centres.
- Extensive areas in general.
- Interesting historical heritage.
- Multiple locations along the country although owned by different companies.

Debilities

- Environmental problems
- Delayed Tax payment for sites
- Community resentment
- Cloistered mentality on mining subjects
- Part of the infrastructure is affected by invaders
- Lack of communication with municipalities (Could be used as opportunity).

It is difficult to understand how far behind was left the relationship of mining and Land Use Planning when it used to be mining the leader in the propagation of citizens and founder of towns in the Spanish and Portuguese colonization of America.

Great number of cities were initiated because of mining and many others have disappeared after mines were closed. The legacy of mining goes further on than mining, many other economic, social, cultural and political development is result of working mines in the past.

A complete essay should be written to mention how many industries and activities have being developed because of mining. Making clear how much sustainable development depends on the proper fulfillment of mining activities.

At this moment society is not aware of what mining really represents for everyday life activities and utilities. Specially in small communities there are hard feelings towards mine companies, citizens feel that mines are only taking out resources from they region and not getting much back in return. Most of the representatives in such towns tend not to get involved in local activities rather than mining, they might give some kind of economic contributions but what it is really required is involvement in everyday activities and making their own the local culture.

Mine sites in the future will take great care of not creating conflicts between the exploitation sites and those communities to be developed, additionally, new railway lines and public transport can be planned in advance and connected when possible to the rest of the projected system. Inclusive new touristic and educational programmes should be

considered in order to involve society since the beginning and make them part of the process.

RAILWAY SYSTEM

Potential

- Underused
- New investors
- Extensive national covering, but many possibilities to be extended
- Presence in principal cities and central location of stations.
- Investment

Debilities

- Derelict infrastructure
- Dismantled as a integral complex by the subdivision in zones
- Not enough equipment

The railway system in Mexico initiated mainly for transportation of minerals and machinery. At one point the infrastructure was nationalized and recently was put back into privatization and divided into different zones. Many of these parts were bought by mining companies to carry their products.

In previous decades went into continuous decadency, up to the point that many routes have being canceled and even dismantled, much of the original infrastructure went into ruins. This derelict situation motivated the government to propiciate the privatization of the system.

Now this has being broken into parts, many of those were re-saled and there is not longer any possibility to reincorporate them. Altogether the railway lines, buildings, warehouses and pieces of land used to be the most extensive and connected infrastructure in the country.

Similar conditions seems to be happening in Brazil where they are looking forward to implement a general commercial corridor, their main problems seems to be the difference of width in their railway lines. This does not seem to be that much of an issue and there are not as many neighboring countries as there are there. Altogether at the long run the reuse and new programming of these infrastructure could increase the exchange of goods in the whole continent.

Sustainable development will be reachable only if there is a clear statement of the different economic , cultural and social activities on the global development process. Mining has forgotten to make clear how this activity has contributed to development in general. Railway system represents the most notorious infrastructure in Mexico and in some other American countries as well but they still underused.

Both industries nowadays have serious derelict problems and environmental solutions to solve. Altogether they represent an alternative solution to encourage sustainable development process as this is a long term process. The spread and coherent locations at the same time represent the most integral infrastructure to implement regional interpretation centres and propitiate regional development.

MINE SITE REHABILITATION

Mining industry is trying nowadays to conciliate with society. Society reclaims the unsolved ecological problems produced by mining activities. As government does not really accomplish to apply the law, Environmental Impact Assessments become irrelevant and problems do not get solved. After some time specially when extracting activities stop then it usually mine companies just leave and the problem persist.

In the past many mines were established and City or towns surrounded the original mine site premises provoking conflicts nowadays due to the lack of prevention in the past.

Thanks to that many historical mines are in a very good location for future implementation of diverse kind of infrastructures usefull for the communities they are placed in. Many of them have extensive pieces of land with environmental conflicts. Most of the time the mines will pay land taxes and remain without any improvements for many years.

As the ecological pressure has increased in these two last years and the experienced learned by the economic bills in other countries because of environmental penalties, before that starts in this country many sites have gone into the municipalities and state governments. These entities are not aware of the magnitude of the problem and will not be really linked to what is happening in the international context of mine sites rehabilitation.

In recent years many places worldwide are gone into rehabilitation and a variety of final uses are taking place. In order to facilitate the knowledge of mining activities by public in general the reconversion into museums will be very gratifying. Following what it is going on in other latitudes and how they have achieved the implementation of museums will give us guide lines and will reinforce the task to present the different aspect of mining by the enhancing the main local characteristics.

If mine sites remains under the lead of mining industry an integral complex could be achieved by reinforcing the differentiation between one place and the rest within this international movement of rehabilitation mine sites. Some mine sites could become complete integral complexes for touristic or industrial enterprices. If we add that train can be incorporated into the process, on one side there would be the probability to develop touristic routes as well as commercial and industrial ones.

As not every place can or should become museum, there is the opportunity for communities to make a regional survey and find out what are the main needs and perhaps the infrastructure in disuse of mine sites and Railway systems might bring the opportunity to reincorporate them and change the use or in the best case such as derelict site could be transformed into special edifications.

This is a good opportunity for long term planning which is not really practiced in Mexico, specially in small communities.

A lesson to learn from, although of what not to do would be a pilot project presented twelve years ago for Parral and the mine La Prieta, in the State of Chihuahua; at that time it was not possible to convince the population or local authorities, not even the private sector to follow the presented project, but after all this time many of the original elements have been developed in the rest of the city and lost the opportunity to solve the environmental problems. This previous year they have finally initiated the process, unfortunately they went into another direction by lending the site for a long term to the municipality.

This does not benefit to the community because it becomes uncertain any investment and for the mine company loses control of the site and becomes difficult to integrate this into the national vision.

PLAN MEXICO

Through the integration of the Railway system and Mine site in disuse a new National interpretation Process could be established.

The process consists in the interpretation and diffuse of the local characteristics of every region and be widespreaded to the rest of the country.

Many of the derelict buildings can be transformed into Interpretation centres and those already with a defined use might reconsider the implementation of one these centres as complement.

There is not an established programme to evaluate what every region has to offer in terms of goods, education, services and so on and on the other hand what the real needs are for their industries and society. By introducing these centres with their respective operational programme this information will be concentrated and then the exchange of professional services, merchandise and knowledge should be increased reinforcing and generating regional development.

If the railway system would remain completely national as it remained for a long period might have been easier, but that opportunity is gone and part of this national heritage is lost by the sale of many of its parts. Even though that this has happened there is still great opportunity to encourage the different levels of government and the private sector to invest in these national inclusive project.

Considering the distribution of the sites along the national territory, they represent most important options to facilitate the implementation of scientific centres, business parks, technology parks due to their strategic location with the aggregated value of being linked by train as one solid project.

Telephony is run by one of these mining consortiums, bringing the faculty to reinforce these technology approach, besides, a series of telematic piazzas could be implemented in these mine and railway sites for the use of locals.

There are many railway lines in disuse and many of them tend to be converted into green ways. There is nothing wrong with that, except that they limit the implementation of public transport as tramways or metro facilities linking our new technology centres to the rest of the city and the main railway line which connects to the rest of the cities and centres. If the use of these green ways or other use does not interfere with the general programme they would be allowed then.

This is a complex and multidisciplinary initiative to be promoted but considering partial prototypes they are already giving fruits back.

INTERNATIONAL COLLABORATION

There are several Worldwide and Iber-American organizations working towards the same goal for industrial heritage, Implementing mine into the land Use Planning process, ITC and specially regional development. Any plan nowadays requires to get involved in such universe in order to fulfill quality, achieve global agreement and finally sustainable development, at the end everything is considered as part of the globalization process.

Several projects that have just started have initiated without these sort of linkage and they do not receive appropriate assistance making it difficult to integrate them into these international programmes, even that many of them are just on the beginning process they have lost the deadlines already to present any project.

The close collaboration of experts within Iber-American countries mainly will bring the opportunity to incorporate on time projects into the financial and assistance programmes which contribute to realize improvements into our cities and towns and exchange experiences and star collaboration. Otherwise these resources will never reach our areas of interest. Some programmes require the participation of different countries into one project and if there is not communication and collaboration the chances to receive international assistance or financial benefits becomes null.

CONCLUSIONS

Hard to believe that mining activities are so relegated in the Land Use Planning Programmes and that it is result of the enclosed environment that mining used to manage as policy. The impact of mining activities and secondary elements are so important for the function of global economy and social life that if there are problems there are as well very important and positive contributions.

The solution will become easier by the inclusion of society into the process. The assessment of multidisciplinary teams will facilitate the finding of practical and long term sustainable solutions.

In the case of Mexico there still a lot of work to be done but the process has started, not every one agrees with this option of rehabilitating industrial heritage, but if we lose part of this heritage we will be losing part of history which is part of our identity. This proposal provides an alternative to contribute to regional development, at the same time giving some independence to mining industry to be linked to several economic, industrial, educative and social opportunities of investment.

Railway system a result of mining activities in the past becomes again a complementary element into this regional development proposal.

It is very gratifying how locals get involved into the rehabilitation or just re-use of derelict mine sites, specially old miners. Oral testimonies are as much important as the industrial heritage and must be into consideration when realicing environmental impact assessments.

For countries whisch are always fighting agains economic crissis is very impresive that much of its infrastructure is no properly used and the worst part is to have them in neglected conditions.

A good option is to reverse the conditions of this infrastructure and start the process of promote regional development by the contribution of mining and Railway system.

REFERENCES

Books and thessis:

- Terrazas, V.M. 1994. *Business Parks&Landscape Designers*. Edinburgh,Scotland. 60pp.
- Allesch, J. 1989. *Regional development in Europe: Recent Initiatives and experiences*. Walter de Gruyter @ Co., Berlin.
- Radowsky,S. 1999. *IBA ' 99 Internationale Bauausstellung Emscher Park Katalog de projekte 1999*, Gelsenkirchen.