Development Partnership with the Private Sector (Public-Private Partnership)

GIZ - Grupo Ercus

Selection of a suitable site for the establishment of a Sustainable Industrial Area (SIA)

Report of the preparatory workshops
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“Emerging Markets Multinationals Network for Sustainability”
“Programa de Gestión Ambiental Urbana Ambiental”

Text
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Introduction
BACKGROUND

The objective of this cooperation project (iEPW) is to draw up a Guide for the selection of a location for a Sustainable Industrial Area (Área Industrial Sustentable – AIS). It forms part of the activities of the German Federal Ministry for Economic Cooperation and Development (BMZ) within the framework of development partnerships with the private sector. ¹

Primary goals from the perspective of the development cooperation are:

⇒ Strengthen the private sector structures in the partner countries
⇒ Mobilise diverse contributions of the private sector with respect to development goals
⇒ Transfer know-how and technology
⇒ Increase private sector investments as drivers of development
⇒ Raise the sustainability of a development cooperation through a long-term commitment of the private sector in the partner countries

This particular iEPW involves two GIZ projects (Emerging Market Multinationals Network for Sustainability (Red EMM) and the Urban-industrial environmental management in Mexico II (PGAUI II)) that collaborate with a private actor, Grupo Ercus. The activity comprises the period from September 2014 until February 2015.

The project takes place in Mexico, one of the 25 countries with manufacturing/processing industries worldwide (second place on the regional level after Brazil), in which – despite great advances and high production volumes – the sector faces huge challenges, primarily related to topics of sustainability.

¹iEPWs (Integrierte Entwicklungspartnerschaften mit der Wirtschaft) are bilateral projects between the GIZ and a private partner which are carried out as an integral component of a programme or project in the area of technical cooperation.
General objective of the iEPW

With respect to the mentioned impact the general objective of the iEPW is:

Promote a sustainable industrial development in Mexico through a guide with sustainability criteria that allow for the selection of a suitable site for the establishment of an AIS as well as its implementation in a pilot project.

The specific objectives related to this activity will be:

1. Understanding of the context and current situation of AISs in Mexico and their link to topics of sustainability and development
2. Definition of environmental, social, economic, political, geographic and strategic variables
3. Identification and evaluation of possible locations
4. Definition of a profile of companies that could possibly locate themselves in the SIA
5. Drawing up of a guide with sustainability criteria
6. Implementation of the guide in a pilot project.

The cooperation agreement will last from the 16th of February until the 16th of August 2015.

Expected impacts of an SIA

A SIA could potentially give rise to economic, environmental and social benefits for the company, its employees, the public partner and civil society.

Summary of benefits

- Attract foreign and technical investment
- Increase foreign trade
- Pass on acquired skills/knowledge and good practices
- Create employment
- Strengthen the social structures of the region
THE THREE PHASES OF THE IEPW

Analysis of the context and current status of the SIA in Mexico

Integration of analysis variables in a guideline for the evaluation of location of a SIA

Implementation of the guidelines in a pilot case study

Fuente: Elaboración de las autoras
Grupo Ercus is a group of integrated companies in various sectors that include packaging, digital printing, event organisation, research and manufacturing of agro-industrial products and the manufacturing and distribution of organic, natural and gluten-free candies and chocolates.

EMM Network for Sustainability is a network of leading sustainability and C-level managers working in multinational companies in and from emerging markets, committed to developing, rolling-out and showcasing sustainability solutions as part of the core business of their companies. It provides a platform for a truly global sustainability dialogue.

PGAUI II reflects the environmental aims in the areas of environmental governance, urban environmental management and sustainable production and services. The latter creates a strong link with the private sector and supports companies and associations with technical consultancy.

Fuente: Elaboración de las autoras
II. Preparatory workshops
**METHODOLOGY**

As part of the preparatory work with respect to the start of the iEPW, workshops with international experts were organised. Their aim was to contextualise the topic of AISs from a practical level and to give recommendations to the specialists who will be involved in the development and implementation of the guide.

### II. 1. Selection of analysis criteria

Conducted by: Dr. Michael Weber  
Mexico City, March 9, 2015

During these working days a general overview of the variables that have to be considered when developing the project was given. The workshop was conducted in the following way: First, Ercus’s vision of a future AIS was presented; subsequently, a tour through the current facilities was undertaken and the options for a new site were weighed; eventually, decisive variables for the selection of a new location were identified and defined. Moreover, contributions with respect to the methodology and the range of the project were considered.

The applied methodology was based on an environmental, social and economic impact measurement/evaluation. The identification of key variables for the selection of an appropriate location for a SIA, presented in this document, corresponds with the second line of action of the project. The related procedure consists of three phases:

1. **On the basis of Grupo Ercus’s vision of a future SIA**, the mapping of interests, necessities and priorities of the company was the starting point of the analysis. The firm’s presentation set out guidelines with respect to the establishment of an SIA from the point of view of the business. A tour through the facilities complemented the presentation with a direct and physical impression of the current site, which helped to identify the company’s necessities related to the future location.

2. In a second phase and taking into consideration general, environmental and socio-economic location factors, important **macro and micro variables were identified**. In this way, the view was extended towards a huge variety of possible variables in order to present to the company a holistic perspective of the concept of AIS. With respect to this, it is necessary to mention that this phase also provided room for a first brief analysis of the propositions for locations already introduced by different provinces.

3. With a view to Grupo Ercus’s necessities and special vision, **the firm prioritised the variables** and identified the core factors important to it. These variables will form an integral part of the guide for the selection of locations for SIA.

The areas of the identified variables (phase two) are presented on the following page.
**Space and implantation**
- Impact on the environment, ecological factors
- Economic advantages of the region
- Equipment, supplies, services
- Market data and demographics
- Particular aspects of the country and the region
- Funding
- Programs of the national, regional, local government
- Quality of life
- Licenses

**Human resources**
- The basin of employment, wages and productivity

**Specific location criteria**
- Energy, water and waste
- Impact on the environment, ecological factors
- The climate
- Planning of site specific factors

**Infrastructure**
- Transportation - Modes of distribution of raw materials and products
- Energy, utilities, electronic and communication connections
- Water and waste

*The complete list can be found in the Annex I.*
PRIORITISATION OF KEY VARIABLES

In a selection process the most important criteria from the perspective of Grupo Ercus were filtered out. It was taken into consideration that the company will need electricity, water and natural gas for diverse production cycles, while the produced waste includes cardboard, paper, plastic, polyolefin and residues of avocado, coffee, cacao and raw material of sweets. Dangerous materials include isopropyl alcohol, solvents, ink, compressors, burned oil, contaminated emissions, burning of natural gas and black water with organic waste (without chemicals). Afterwards, the specific variables prioritised by the company and the relevant thematic areas were presented.

Central variables chosen by Grupo Ercus

**Space and implantation**

- Strategy of economic policy concepts of the region
- Innovation, technology & science
- Development of infrastructure and management of industrial land and land reserved for commercial activities
- Investment aid, implementation and aid to companies
- Concept for reducing unemployment, securing know-how, recruitment of qualified employees
- Regional and national cooperation
- Industrial and business sectors targeted
- Raw materials and semi-finished products
- Attitude of the General Public towards new developments
- General appearance of the region and the municipality
- Features of the region and the municipalities
- Import and export
- Means of incentives
- Sale or concession of land
- Industrial funding of the State / Provincial programs
- Incentive tax, industrial funding programs

**Infrastructure**

- Road transport

**Specific location criteria**

- Cost of the land
II.2. Workshop for the definition of sustainable criteria and concepts for a guide

Conducted by: Dr. Juan Palerm

Mexico City, 23 and 25 March 2015

Pachuca, Hidalgo, 24 March de 2015

Within the framework of the project iEPW with Grupo ERCUS a workshop for the definition of sustainable criteria and concepts was carried out.

The meetings were conducted with GIZ staff, the consultancies, which will design the manual (Ecoterra and Terraética), and Grupo ERCUS, which will pilot the guide in the selection of the location and design of their industrial area.

The first day of the workshop was dedicated to a presentation of the tool “Evaluación Ambiental Estratégica” (EAE) in order to first discuss its applicability in the planning of a sustainable industrial park. Furthermore, Ecoterra reviewed the first components and criteria considered in the GIZ manual for sustainable industrial parks in India.

At the request of Grupo ERCUS, the second day was devoted to a meeting with representatives in Pachuca and field visits.

On the third day Dr. Palem (international consultant) carried out a session with the objective to identify strategic goals for a sustainable industrial park that should be considered on the first levels of decision-making.
PRESENTATION

THE STRATEGIC ENVIRONMENTAL EVALUATION (EAE)

- Was developed in 1968 in the U.S., the EU guideline is from 1985, but it has led to great contributions to the environmental design of projects
- Evaluation of Environmental Impact (MIA) uses very specific/hard data
- The dimension of strategic planning is not linked to an authorisation but is rather an instrument which improves processes of strategic planning
- The authority needs to adopt the instrument
- The evaluation is guided by strategic goals and visualizes alternatives – in addition to infrastructure, improve capacities, etc.
- Qualitative methodologies, CONAGUA statistics, sustainability data of groundwater, little reliable data.

**Principally evaluate**

- Normatives and other policy documents
  - Policies
  - Plans
  - Programmes
- How to create a link between the planning process and the process of environmental evaluation?
- Plans of ecologic regulation – use of soil – social issues
- Sector analysis – strategic goals with environmental objectives on the national level
- Medium- and long-term planning – climate change
- Agricultural park – sustainable consumption puts pressure on business to act in a different manner. Incentives to reward these initiatives/fulfilment of eco labels
Comments with respect to the methodology (slide 1)

- A survey – preliminary analysis of the interest in the installation of a park
- In step 5 incorporate participatory workshops in order to include actors – the proposition needs to be clarified – local agreements
- “Social license of operation”
- What implies “the creation” at environmental impact level? Still misses to mention the benefits – co benefits
- Within the scope of EAE the focus is not on the impact but on the existing opportunities, always framed by the notion that CSR is not philanthropy but generates structural changes
- Environmental perception – first reference of how to analyse them with respect to the project
- Global value survey for Mexico that was conducted by INEGI.

Identification of a potential area

- Services environment/context: - include the settlements, energy,
- Include raw material and market in analysis (consumers)
- Include vulnerability with respect to the climate change in the potential locations

Socio-economic phase

- Is done by the offer
- Geographical focus
- Quantitative vision
- Add socio-economic variables
- Question whether regional analysis is feasible (or directly on state level)
- Start from a regional analysis, continue with states and finally deal with concrete case of the municipality
- Identify function/features of the region (technology, international markets, regional, etc.)
- Second step: state function/features (documentary and field analysis)

General comments

- What are the starting point and the reach of the guides?
- Starting point – definition of public sector or IP objectives
- Orthodox strategic elements of planning – of the typically involved actors
- Define mission, vision and key objectives for the first step
How to start from a common basis?
- Sustainable industrial park – define concept
- Clarify benefits of the guide
- Brainstorming that considers everyone, take elements and work on a definition
- Take up again the idea of green economy and emphasize the benefits/opportunities
- Consider a development with few emissions/creation of green jobs (decent jobs)
- Reduce the consumption of water, energy, waste
- Participatory and transparent and iterative
- The guide needs to be flexible

Objectives and criteria for a sustainable industrial park
As a first exercise social, economic and environmental sustainability goals were defined. During the discussions political and more general objectives were added.

Economic dimension
- Productivity
- Recycling economy (efficiency of resources, raw materials, water, energy)
- Market integration
- Driver for the local economy

Social dimension
- Create social impact and social well-being
- Generate green jobs (decent, environmental goods and services and/or goods or services under environmental management)
- Local social development
- Working practices and gender focus/focus on vulnerable groups
- Use of local resources and technology
- Involvement of stakeholders
- Aggregated value through principles of social responsibility (social compensation, accountability)
- Guarantee human rights
- Contribute to poverty reduction
- Improve life quality (purchasing power, clean environment, transparency)
Environmental dimension
- Reduction of emissions
- Fulfilment of environmental regulations
- Contribute to a low-carbon development (energy efficiency, use of renewable energies)
- Climate resilience
- Foster an appropriate environment
- Use of natural resources under its regeneration capacity (e.g. water)
- Process optimization with a sustainability focus
- Zero environmental load (water, carbon, energy)
- BAT (Best Available Techniques)
- Integrated into the landscape
- Compatible with biodiversity protection

Political dimension
- Prioritise a location where a sustainable industrial development is fostered (by the authorities)
- Alignment with development policies

General principles
- Balance between the three dimensions of sustainable development
- Provide tools of competitiveness
- Integrated models of corporative governance
- Introduce certainty
- Minimise risk

Afterwards, a brainstorming session with the goal to define criteria on three levels (regional, local, related to the selection of the site) was carried out.
Criteria on the regional level
- Degree of sensitivity
- Function /Features of the region
- Zones designated for industrial use
- Orography
- Nature reserves
- Inundation zones
- Water stress zones/availability of water (taking the climate change into consideration)
- Distance to energy sources
- Connection to road network
- Distance to archaeological zones

Criteria on the local level
- Same criteria as on regional level but taken to local level
- Favourable environment from the part of the authorities
- Function/Features (compatible use of soil, present industries)
- Potential environmental impact (water, soil, air, biodiversity)
- Land ownership
- Social perception of the project
- Access to services (e.g. waste management)
- % of unemployment (prioritising areas with high level of unemployment)
- Degree of marginalisation (prioritising areas with high level of marginalisation)
- Degree of violence
- State subsidy
Criteria for the selection of the site

- Cost of land
- Availability of services
- Distance to road network
- Land ownership
- Availability of labour
- Distance to markets
- Availability of resources
- Distance to providers
- Environmental evaluation phase 1

One of the first aspects that were discussed was that the Indian guides primarily emphasized the selection of the location for an industrial area, while it would be beneficial for Mexico to complement these criteria with others that include the design and operation of the IA.
III. Conclusion and steps to follow
CONCLUSION AND STEPS TO FOLLOW

The activities presented in this document represent the preparation for the start of the iEPW “Elaboration of a Guide for the selection of a suitable location for a Sustainable Industrial Area (AIS)” and had the goal to identify and choose analysis criteria for the selection of a suitable site. They were expected to lead to achieving the second objective of the project and represent the crucial step towards fulfilling the second line of action of the iEPW.

In the course of the workshop carried out by Grupo Ercus, the GIZ and consultant Dr. Weber the specific necessities and priorities of Grupo Ercus with respect to its new production site were successfully analysed. In the same way guidelines for the conformance of the new site with the concept of an AIS were determined. Both the preconditions of the company and the standards concerning an AIS were afterwards integrated into a final catalogue of key variables for the selection of a new location of Grupo Ercus.

The most important aspects included the availability of processible agricultural products and vice versa the positive impact that the purchase of these products by Grupo Ercus could have on the rural production. Moreover, the attractiveness of the site was emphasized as to incentivise other food processing companies to set up their respective plants in the future. The proximity to clients, the cost of land as well as state, federal and municipal subsidies and incentives are further variables that play a role for the company. Furthermore, the proximity to research and development centres, related to the relevant current or future industries, was considered as fundamental. Without doubt, proximity to cities with good life quality for the persons working in the park would also be beneficial.

The steps to follow will consist in the integration of the variables into the planned guide as a central result of the iEPW. Although the finalised guide will primarily be used in the Grupo Ercus pilot project, a long-term perspective is that it is replicable both in Mexico and in other emerging economies.
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#13: http://www.elfinancierocr.com/pymes/Mucha-beneficiarse-conclusion-defectuosa-separacion_ELFIMA20130819_0008_1.jpg
LIST OF THE CRITERIA FOR THE SELECTION OF THE LAND:

Criteria for space and implantation:

Economic advantages of the region

data of the economic situation of the region
  Situation of the region, surface, population, gross domestic product global / per capita, assets, unemployed, export rate, number of companies.
  Source: monographs, national statistical research

Strategy of economic policy concepts of the region
  Industrial and economic policy as formulated by the Government, implementation of this policy in accordance with the Government publications and other publications. Examples of schedules and projects.
  Sources: governmental institutions.

Innovation, technology & science
  Existing companies and institutes with their research activities, high-tech enterprises (peak technology), eventually patenting.
  Source: monographs, official synoptic tables.

Development of infrastructure and management of industrial land and land reserved for commercial activities
  Major existing infrastructure projects, planned projects, identify the existing industrial areas and areas of commercial activities, the implantation policy.
  Sources: State information and reports, monographs.

Places of congresses and fairs, tourism
  Description of the facilities, current operations, load of activity, regional and national importance, acceptance by the industry and the population, attitudes of policy towards these facilities.
  Predictive description of future developments

Investment aid, implementation and aid to companies
  National, regional or municipal programs or aid projects for investment or job creation, Programs of financial nature, tax relief and acceleration of approval procedures

Concept for reducing unemployment, securing know-how, recruitment of qualified employees,
  National, regional or municipal programs and concepts for the reduction of unemployment, programs for employment, subsidies to employment, training programs,
  Statistics for the qualification of employees in the region, training and qualifying institutes

Regional and national cooperation
  Cooperation between enterprises on the one hand and research, training institutes, trade unions, authorities and the Government on the other.
  Degree of organization, individual initiatives,
  Joint implementation of projects or programs, round tables
Regional and national cooperation
Cooperation between enterprises on the one hand and research, training institutes, trade unions, authorities and the Government on the other.
Degree of organization, individual initiatives,
Joint implementation of projects or programs, round tables

International position
International comparison of the projected SEZ and other SEZ in neighboring countries compared to existing experiences.

Industrial and business sectors targeted
Listing of the potential trades and industries that could be implanted in the AEZ.

Possible exclusive sales points - site marketing.
Deduction of success factors conceivable for the marketing of a SEZ, implementation, on site based on the strengths of the economic basin

Market data and demographics
Demographic trends
Development of the population, distribution by age groups, illiteracy, evolution of schooling, the population active and not active

Revenues trends
Developments of the incomes of the population

Characteristics of the population / consumption
Consumption habits of the population, consumption expenditure, ratios for the current standard of living

Consumer trends
Development of consumption, monetary data, degree of satisfaction of certain markets (cars, phones, televisions, kitchen appliances, washing machines)

Industry development / markets
Key figures of the industry in the region, figures of internationalization, allocation of quantities, industrial branches, employees, business, development of bankruptcy / insolvency

Visitors / tourism in the region
Tourism (leisure tourism, business tourism), number of nights, hotel supply, catering.

Equipment, supplies, services
Raw materials and semi-finished products
Sources of raw materials, semi-finished products for targeted industry sectors. Information to this effect should be available with the reports of regional authorities or economic sector or professional associations.

Storage facilities
Information concerning logistics facilities and particularly intermediate storage facilities should be available from the Chambers of Commerce as well as in the directories of the
Equipment
Sources of supply for offices and workshops are generally available in the directories of the professional branches

Technical services
Technical services are generally provided by specialists, or by partners of manufacturers of installations and are recommended by them.

**Impact on the environment, ecological factors**

National regulations
National laws and regulations relating to the protection of the environment, for the creation of the SEZ

Attitude of the General Public towards new developments
Attitude of the public towards the creation of industrial complexes, experiences regarding demonstrations, protests, complaints and referral to courts.

Classified areas in the region / nearby
map and list of protected areas and the stipulated restrictions

progress of the region / municipality in the reduction of pollution
Current programs and measures aimed at reducing pollution, achievements and measures

Specific legislation
Legislation intended specifically for this region or the sez

**Quality of life**

General appearance of the region and the municipality
List of aspects of quality in general such as the quality of the habitat, green spaces, personal safety, the degree of leisure, the structures of supply for daily needs, quality nurseries and schools, cleanliness, medical care, social centers

Features of the region and the municipalities
Type of housing, occupancy rate
Kind and level of structures of leisure – green spaces, restaurants, cafes
Reputation of the region and the municipalities, crime rates, disorders
Health and welfare
Quality of the air-pollution due to dust or toxic products, noise, unhealthy climate, climate particularly conducive to health, habitat adapted according to age
Quality and reputation of hospitals, clinics, doctors

Police and civil protection
Presence of the police - police stations, officers on the street, success rate
Firefighters, equipment, training stations

Education
Crèches: quality, reputation, operators,
Schools - private or public: quality, reputation, size
Primary schools, schools of continuing education
International schools

Cultural aspects
Theatres, cinemas, concert halls, other events, outdoor gastronomy offers

Leisure structures
Parks, zoos, playgrounds, sports facilities, amusement parks,

Religious institutions: mosques / churches / temples /synagogues
location and distance to the site

Cost of living
Cost of living in the State index, compared with the average national, indices for various consumer goods, price.

**Particular aspects of the country and the region**
Its factors of concrete risks that may prevent the establishment and development of the industrial zone

Political risk / instability / terrorism / high crime rate
On the basis of information and insights developed usually by municipalities or the Government's statistics are to be established concerning crime, extremism e.g. political, social problems and disorders such as for example terrorism. Resorting also to press information and take into account reports coming from abroad. Consider these risks and assess them if necessary.

Social aspects
Are there specific social factors in the immediate environment that may constitute a risk that should be taken into account? Change of communities, ethnic or social groups, poverty.

Economic factors
Are there concrete economic features that may pose a risk? Monopolies and companies or organizations dominating the market must be regarded also.

Permissions, practice of official procedures, time limit permits derogations
Is there a clear authorization with stepwise procedures being always respected? Are there examples for permissions assigned without correct procedure - for example, by Decree? Can permissions be bought? Can permissions be withdrawn without apparent reason? Are there changes?

Import and export
Can products be exported from the SEZ? Means of transport, formalities, customs formalities for export, export benefits? How are goods imported?

General attitude to the business Is the region favorable to the industry or against it? Reservations with respect to certain industries, certain activities or certain people in particular? Are there public statements on the industry? What says the press? What say the surrounding communities?
Funding
Must be considered in the context of decision of choice of land discuss the aspects and opportunities of the region and possibly coordinate to a predominant national concept. With the choice of the land must also the financial aspects be established so that matters concerning this field such as sale or concession can quickly be launched.

Requirements
Credit factors
Can one assign special credit conditions? Regional grant credits?

Factors affecting the conditions of loan
What factors were taken into account to establish the concession? Is it only a uniform national price or different by region? Is the price of the concession in the region higher or lower than elsewhere?

Means of incentives
Is there an investment program for the SEZ? Tax benefits, incentives to export, investment aid, aid for job creation?

Sale or concession of land
Concerning the property should already a concept be developed if the land must be sold or licensed. The concept has a capital influence on the business model and management of the SEZ.

Programs of the national Government
In the following chapters to establish national, regional and communal programs and activities that may have a direct or indirect influence on the SEZ and enterprises, national programs could have been established once for all SEZ, so that only regional and local peculiarities should be carefully considered.

Government facilities nearby
The national government structures represented in the vicinity of the SEZ that can or must be contacted without delay.

School assistance
State programs for the promotion of school enrolment and the reduction of illiteracy in the region.

Incentives in less-favored areas
The case where the SEZ would be in a less-favored area - are there special offers for the SEZ and the businesses that would move there?

Representation to the Parliament / from ministries
How can the interests of the SEZ and companies be addressed in national politics?

Administration of economic development assistance
Are there agencies for the promotion of the economy? What other organizations are responsible for the economic advancement?
Agency of environmental protection - organization and activities
Are authorization procedures accompanied by the Agency? How are the limits and other restrictions (transport, handling of products, export and import bans, directives determined concerning drinking water) - If this is the case, which? How are the limits and restrictions they control? Does this agency work effectively?

Agency for safety at work and health-organizations and activities?
Are limit values and other restrictions (transport, handling of materials, guidelines for work places) determined? If this is the case, which? How are the limits and restrictions controlled? Does this agency work effectively? Are there national guidelines for sites within the SEZ?

Monitoring / governance by Government agencies
Are business controls, emission measurements, concentrations of work places or the analyses of products carried out by national bodies? What penalties are imposed on activities not complying with the regulations?

Laws on housing and community development programs
Are there housing construction programs and laws on construction regulating the development of housing in the cities?

Coastal zone management / classified areas / other specific areas / regions of the desert / wetlands
Management of regions with specific requirements:
Management of coastal areas,
Specific regulations to avoid the pollution of sea water, areas of marine life and beaches, specific regulations for ports and submerged pipes.
Management of nature reserves,
Prohibition of activities or production in the immediate vicinity or average distance to the SEZ, gap to keep regulations, regulation of keeping of animals and new plantations
Management of desert regions of wetlands
Management of wastewater, green areas.

Regional Government programs
State Government structure / Province or region and their attitudes, financial structure of institutions of the region who are entrusted to questions on economic, industrial and environmental issues. Attitude of the regional authorities to establishing enterprises, the financial situation of the region
Regulations and legislation of State / Province
If they exist: special regulations or even worsening of the Province.

State taxes / Provincial
Taxes which can be or are raised in the Province in addition to national duties and taxes
Special tax incentives
   Special tax concessions in the Province

Industrial funding of the State / Provincial programs
   Special programs of the Province to support the industry financially - for example, for investment, job creation, the upgrade or protection of the environment or energy saving measures

Labor legislation
   The legislation of labor - the right to strike, a special protection against dismissal, the special security, special systems of remuneration as the minimum wage

Monitoring / governance
   Facilities in the Province for the control of industrial activities
   Examples include laboratories and air monitoring stations, monitoring of wastewater discharges, the monitoring of the levels of toxins in the workplace, agencies to monitor the health of workers,

Special services of the State / Province for the industry
   Specific services include:
   Subsidized housing, promoting businesses, cheap loans, special training and qualification, international trade, the recruitment of foreign professionals

**Local programs / municipality**

Structure of the municipality, the financial situation, the municipal attitude
   The municipality organization in particular facilities that are of importance to the industry, the financial situation of the city - especially the debt ratio, the attitude of the city towards the industry in general, to specific industries and to industrial zones and industrial implantations in the SEZ.

Civil unrest
   Riots against the companies, against industries against investment projects

Local taxes
   Local taxes and the taxes that are collected by the city.

Incentive tax, industrial funding programs
   Special tax relief granted by the city.

Planning commission / planning procedures
   Which authorities are responsible for planning a SEZ and industrial implantation projects?
   How is the process of planning for a SEZ and industrial implantation projects? Are there local specialties?

Monitoring / governance
   Facilities of the municipality to monitor the industry, including laboratories and air monitoring stations, monitoring of wastewater discharges, monitoring of the levels of toxins in the workplace, agencies to monitor the health of workers.
   The reason is that an industrial zone without governance and monitoring cannot be managed in a sustainable manner.
Industrial zoning, building codes
Principles and basic concepts of the allocation of industrial land in the municipality, description of the building codes

Traffic, parking, streets
Specific regulations - prohibitions or restrictions of movement, the prohibitions of transit for trucks, parking restrictions, narrow roads, bridges and low clearances, the prohibitions on the supply of certain goods

Licenses
Licenses necessary for the operation of certain industrial companies or production, for the exercise of certain business

Criteria for human resources:
The basin of employment, wages and productivity
The workers in the region possibly activated
Statistical data on active workers and the unemployed with distribution of age, sex and education

Wages and hours of work
Statistical data on the level of salaries allocated according to functions, the usual working time and three shifts.

Usual incentives at the regional level
Current incentives to motivate employees such as apartments, cars, food subsidies, jobs for family members

Productivity
Statistics on productivity in the region
GDP per employee
GDP per workload
Turnover average per employee
Relations price / cost
Degree of automation

Unions and other pressure groups
Trade unions - their political position, economic activities, attitude toward the strike,
Other pressure groups.

Political work in the area (if it exists)
National policy and - if it exists - regional policy for the creation and the security of employment in the region of the SEZ

Professional training
Institutions of vocational training, branches of training proposed, reputation of the institutions, vocational training in enterprises, compared with international standards.
Laws and regulations on the work
Regulations and laws concerning labor e.g.:
- Security and employment planning
- Working time and pauses / breaks hours
- Employment of minors
- Dismissal of employees
- Obligations in the event of illness, death.

Institutions for recruitment of employees
Type of operation for the placement of labor, state, municipal, investment organizations;

Public and private transportation route from the industrial zone
Current transport models for the ride from home to work
- Common public transport
- Private bus put at disposal by the employer
- Personal vehicle such as car, two-wheeler

Policy and employees moving factors
That supports moving expenses in the case of change of employer, what (relocation-) services are offered (for free)? Moving, looking for housing, paperwork, investments, enrolment into day-care centers or renamed good schools

Practice of relocation of employees
Usual procedure in moves of employees
- Search for accommodation by the employer - support of transport and administrative procedures by the employer
- Reimbursement of expenses
- Personal liability of the employees and at his own expense

Facilities for daily needs in the environment
Situation and distance of structures such as shops, doctors, schools, crèches, hospitals close to the SEZ

Criteria for infrastructure:
Transportation - Modes of distribution of raw materials and products
Rail transport
- Rail links nearby, railway with multiple lines, heavy traffic, max load of cars (tons max), duration of transport to different destinations, average speeds, direct connections, regular transport plans - existing rail links of entire trains.

Rail service to the site
Existing or potential connection of the site provided for in the railway infrastructure. If the connection is not economically viable, it should be mentioned here.
Road transport
Existing or potential connection of the site to the road infrastructure, maximum permitted weight per axle, motorways, duration of transport, average speeds

Trucking services
Standard sizes of heavy trucks (max 60 t or smaller), maximum loads (semi-trailer transport), transport of containers (20 to 40 feet), regular transport services - how often and to which destinations?

Other transport services
Transport with express courier such as UPS, DHL, TNT

Commercial air services
Freight lines of nearby airports, fixed destinations or flights for own account, loading: maximum weight

Transport on inland waterways
(if navigable waterways do exist)

Pipelines
Existing pipelines for oil, gas, petrochemicals or chemicals – products, location, use, owner, possibilities for connection or use transit, conducts for a single product or multiplex conduct

Energy, utilities, electronic and communication connections
Power sources
General information on the supply of energy and media, regional structures of supply connections

Power supply
Power stations (location, capacity, power, sources of energy, owner, experiences of failures), supply (voltage, failures, network interconnection, known risks)

Gas service
Natural gas fields in the country, in other countries nearby, conducted capacity, pressure, gas quality, gas, owner

Coal, oil
Mining of coal in the country / imported coal - port of transhipment, subsequent transport by way of rail / heavyweight trucks, quality (calorific value, sulfur content, inert materials)

Oil fields - the location in the country / abroad, quantity exploited, security of supply, quality (compared with BRENT crude and WTI).

Fuel
Availability of refined fuels (sources, abilities and suitability, quality)
Communications
Availability of communication structures (satellites frequency bands, mobile standards (LTE, 3G, ...microwave radio, terrestrial radio, telephone cable network, use in common of existing lines)

Water and waste
Current situation and regional water development
Situation of water supply in the region, stating the sources, capacities, resilience and supplies (e.g. the location of dams, aquifers)

Sea water - desalination stations
The location and capacity of desalination plants of the sea water - to the extent where they are part of the local water supply

Specific location criteria
Energy, water and waste
Potential of an independent energy source / renewable "on site".
Conditions for the installation of renewable energy, legislation, subsidies, photovoltaic installations: kW-peak / m² maximum power in kW-peak, geothermal energy (nearby) - ∆T exhaustible, solar installations

Location in a energy complex park
If in the environment of the designed SEZ important facilities for the generation of energy exist or are planned

Risk of flooding
Rainfall in the region, indicating rainfall data as average and maximum intensity and duration, flow of the rain, consequences of soil sealing, obstacles in the flow direction.

Local water supply
Local water supply indicating primary and secondary sources of supply and local reservoirs

Surface water - rivers and lakes
Description of streams indicating their location, flow (seasonal change during the year) and the direction of flow

Groundwater - wells (illegal wells)
The location of the water table indicating existing thermo-wells (legal) - and illegal insofar as they are known

Wastewater, wastewater treatment and disposal of wastewater
Existing industrial and communal wastewater disposal and treatment, specify volumes and nuisance for the drainage system, sewage as existing indicating capabilities, treatment processes, age and utilization

Elimination of solid waste through a public agency / private / on-site / off-site / recycling
Types of solid waste disposal, one must distinguish between garbage and industrial wastes (hazardous). Indications concerning industrial waste, responsibility, existing recycling activities (collection, sorting, recycling and reprocessing plants) facilities
Impact on the environment, ecological factors
Geographical factors influencing pollution,
Those factors as frequent situations of inversion, absence of wind, tornadoes, microclimate, frequent (wild) watercourses, gorges and presence of mountain slopes

"Environmental impact analysis."
Synthesis of the results of the EIA in the context of the feasibility study

Risk profile of the industrial area and in the surrounding areas
Known risks for the land and its surrounding that can be caused by the creation of the SEZ - list and description of the risk management programs and control of events

Situations of concessions
Conflicts known between the use of the land and the surrounding area so far on the one hand - and a future SEZ-potential compromise

Analytics from the ecological point of view
Snapshot of the current situation on the site - indicating measured values - of the meteorological situation (microclimate), quality of air, quality of the water, noise emissions, fauna and flora, where appropriate also of the situation of the nearby sea (or if expected discharges of wastewater into the sea) - water quality, water temperature, sedimentation, silting. In this way, the changes caused by the SEZ can be identified with relevance.

The climate
Raise monthly macro data
Values of diurnal and nocturnal temperatures, relative humidity, atmospheric pressure, direction and wind speed / wind rose, duration and intensity of rainfall, duration of sunny weather

Other climate data
Climate peculiarities such as the risks related to weather, lasting droughts or periods of rain, storms,

History of natural disasters, weather hazards
Known disasters related to inclement weather during the year, level of violence, impacts, risks well-known hazards to weather conditions such as flooding, high winds, landslides

Consequences and regulations deducted for the master plan of the Industrial Zone
Deductions from regulatory issues of climatic conditions such as the layout of the buildings, the positions of firefighters and civil protection

Effects of climate on costs
Estimate the additional costs arising from climatic conditions, for example for protection against the rising waters, wind protection, protection from the Sun
Planning of site specific factors
Plots and parcels, boundaries of the area
Limits and plots with exact coordinates, such as the limitations by roads or pipelines

Aspects of property, purchase of land
Name of owners - private or State, purchasing conditions of the land, and requests for price if they are already known, Data from comparative prices in the vicinity

Zone type
Data on the types of SEZ, area of trades, industrial zone, heavy industry, high-tech (technology), small businesses, planned implantations with medium and large importance

Topographic analysis
Topographic data with land elevations and altitude

Geological, tectonic and seismic study
Geological data, data relating to the underground, particularly the resistance, hardness, extraction of mineral resources;
Information on earthquakes, historic, probabilities, tremors amplifying or dampening underground

Neighborhood
Description of the neighborhood, natural environment, agricultural and industrial activities, residential areas, individual houses with accurate data, planned or possible modifications,

Possibility and directions of extension
Fact guidelines for extension with respect to land elevations, tectonic and geological data

Restrictions of use and bans
The restriction assessment for the SEZ and even bans due to unfavorable situation allowing no dust emissions, toxic emissions or the discharge of water in the river or sea

Limits to respect
Data of the derived limits by legislative requirements or from simulations of calculations

Land to build on / soil bearing capacity
Description of the soil with its development, ground works, necessary raising of ground levels, the necessary dredging with depth data

Transport service on the site
Means of transport already existing on the site - railway structures, heavy load trucking

Transport services in the region
Heavy load trucking services or existing railway structures in the region that could be exploited, take also into consideration the expansion of these facilities and their future development
Public services and costs
Existing public transport installations and data concerning what they cost

Site development costs
Time invested for the development of the SEZ; work of filling and earthmoving, exploitation, transport infrastructure, energy supply, storm water system and sewage disposal, costing on the basis of comparative results and experiences, deficiencies of the ground must be taken into account and evaluated. For this reason additional investments caused by the difficulty or inadequacy of the terrain must be mentioned

Non-tangible considerations
Immaterial assessment of the land by which the utilization or restrictions of utilization are evaluated

Legal Control Points
Legal and contractual issues which are to be considered in the context of a change of function of the land, its sale, finishing the current utilization and its development, it should also be taken into account any delays due to the procedures of courts and the necessary political decisions. A study of hazards is necessary here.

Cost of the land
Give the price of the land as sought by sellers, as well as a realistic price reduction.

Zoning requirements
Study the requirements of zoning, legislative requirements, issues arising therefrom, economic alternatives.

Integrated Zone
Possibility of integration of the industrial zone, review and assess the housing areas and leisure structures.

Consideration of the specific strategies
It is necessary to discuss the impacts of known specific strategies of communities, small groups and industrialists.

Formalistic commitments
If these exist, make a list of steps and procedures or other general conditions and rate them.

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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<tbody>
<tr>
<td><strong>Day 1 – March 23</strong></td>
<td></td>
</tr>
<tr>
<td>9:45 am</td>
<td>Registration</td>
</tr>
<tr>
<td>10:00 am – 10:15 am</td>
<td>Presentation of the Agenda and the Participants</td>
</tr>
<tr>
<td>10:15 am – 12:00 pm</td>
<td>Revision of the GIZ documents of the project implemented in India (analysis and feedback with respect to the adaption and implementation of the guide in Mexico)</td>
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<tr>
<td>12:15 pm</td>
<td>Break</td>
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<tr>
<td>12:15 pm – 1:30 pm</td>
<td>Identification of key points that could be applied in the case of Mexico (starting with the revision of the documents)</td>
</tr>
<tr>
<td>1:30 pm – 3:00 pm</td>
<td>Lunch (free, for each participant)</td>
</tr>
<tr>
<td>3:00 pm – 5:00 pm</td>
<td>Consulting in the specific topic of Criteria for the Regional Analysis on the Mexican level (Attachment 3) – zones with high sensitivity and classes/types of industries</td>
</tr>
<tr>
<td>5:00 pm</td>
<td>Closure</td>
</tr>
<tr>
<td><strong>Day 2 – March 24: Trip to Pachuca</strong></td>
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<tr>
<td><strong>Day 3 – March 25</strong></td>
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<tr>
<td>10:00 am – 1:30 pm</td>
<td>Presentation of aspects that need to be considered from the industrial point of view in order to conduct a strategic environmental evaluation for a certain company (Grupo Ercus) in the planning, construction and operation of the same</td>
</tr>
<tr>
<td>1:30 pm – 2:30 pm</td>
<td>Snack</td>
</tr>
<tr>
<td>2:30 pm – 3:30 pm</td>
<td>Agreement and map to follow</td>
</tr>
<tr>
<td>04:00 pm</td>
<td>Closure</td>
</tr>
</tbody>
</table>
Annex. Definition of the goals of the guide and criteria/photographic memory