



International
Labour
Organization



▶ Local resource-based approaches and community infrastructure

Addressing local needs through local resource-based approaches

Employment-Intensive Investment Programme (EIIP)

Why local resource-based (LRB) approaches?

People’s lack of access to basic goods, services and facilities hampers socio-economic and human development. It is of great concern in many developing countries, particularly among impoverished households in rural communities. Some of these rural communities are geographically isolated. Combined with an absence of physical or institutional infrastructure, these communities often face major difficulties securing employment and livelihood opportunities. Overcoming these challenges is essential to achieving Sustainable Development Goals (SDGs) and its principal objective to “leave no one behind.”



Community infrastructure development through local resource-based approaches helps overcome these challenges. Community infrastructure refers to small-scale infrastructure within and around the local community areas that are not managed or maintained properly by the government or sectorial agencies. Some examples of such community infrastructure

include farm-to-market roads and other access roads, footbridges, water supply facilities, irrigation canals and drainage systems, and communal facilities. Community infrastructure works are often carried out through community planning, participation and operation, thereby generating direct employment and skills development opportunities for community members.

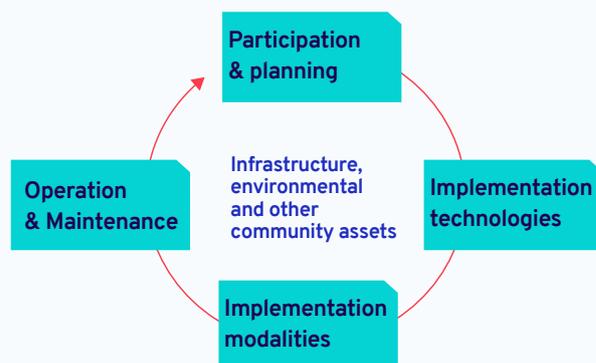
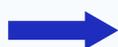
In developing and maintaining community infrastructure, the ILO’s Employment-Intensive Investment Programme (EIIP) promotes the use of **Local Resource-Based (LRB) approaches**. LRB approaches optimize the use of local resources, including local labour and technologies, as well as locally available materials, tools and equipment through local suppliers, throughout the project cycle from the planning stage through to the implementation and maintenance. The LRB approaches encourage the engagement of all the relevant stakeholders: target communities, local service providers including small contractors, and local governments. Participatory processes are ensured during the consultations to enable vulnerable groups in a community, such as women, youth, people with disabilities, indigenous and tribal people, and elderly, to have a voice in decision-making and to actively participate in the development process.

As such, channelling infrastructure investments through local communities, the LRB approaches not only create local job opportunities, but also stimulate the local markets and the economy, and entrepreneurship, while safeguarding cost-effectiveness with quality control and sustainable infrastructure asset creation.

▶ Inclusive infrastructure – optimize the use of local resources, increase the development outcomes of investments

Inputs

- ▶ Local male and female unskilled and skilled labour
- ▶ Local materials and natural resources
- ▶ Local technologies, tools, equipment
- ▶ Local contractors
- ▶ Local communities
- ▶ Local governments
- ▶ Local suppliers and service providers



Outcomes

- ▶ Inclusive and sustainable infrastructure
- ▶ Decent local jobs and income
- ▶ Investments responding to local needs
- ▶ Multiplier effect and local economic development
- ▶ Environmental improvements
- ▶ Local capacity

Environmental and social safeguards

Community infrastructure planning

Involving and building capacities of local governments to deliver

Central governments' investment planning often does not provide an adequate response to the actual and pressing needs of rural communities, which results in a limited flow of resources to these communities, and their marginalization. However, over decades, decentralization and devolution movements have gradually enabled local governments to manage community infrastructure development. In general, local governments are better-situated and more effective agents in tackling development problems at the local level – their works relate directly to the local needs since they work in close cooperation with the communities under their jurisdiction in all stages of the works. As such, local governments' delivery of infrastructure assets is often key to improving rural livelihoods, and their capacity to implement is critically important. The EIIP supports local governments to effectively and systematically plan and implement infrastructure development projects of the communities in which they serve.

Integrated rural accessibility planning (IRAP)

The EIIP has developed the **Integrated Rural Accessibility Planning (IRAP)** tool, which is a product of a continuous process of methodological development undertaken in a number of countries since the end of the 1980s. IRAP is a tool for local-level planning that starts with the notion that rural communities' lack of access to goods and services is the fundamental constraint

to socio-economic and human development. It seeks to identify investment priorities for improving access through mapping. IRAP consists of a bottom-up and participatory mechanism that cuts across sectors. The procedures and techniques respond to different and specific access needs of the population in different rural areas, which include access to potable water, primary health care, education, fields for agriculture, markets and transport systems. Accessibility maps help to identify project interventions that address the most pressing community access needs. IRAP produces immediate outputs and can be integrated into existing planning process.



► Box 1. Mexico: partnerships and technical assistance

During the period 2015-2019, the Mexican Institute of Transport (IMT), a member of the International Forum for Rural Transport and Development (IFRTD), received technical training from the ILO on the application of IRAP tools. The IMT and the Amealco de Bonfil Municipality joined the collective efforts to apply the IRAP in four low-income rural micro-regions in its jurisdiction. The aim was to define and prioritize the problems and access needs of rural people from 15 low-income indigenous rural communities (11,984 inhabitants) that make up the micro-region of San Ildefonso Tultepec and, 16 low-income rural

Mestizo communities (5,426 inhabitants) that make up the Northern Zone. The result from the IRAP surveys presented the main accessibility problems in the municipality related to the health sector (39% of the respondents identified it as one of the top priorities), followed by public and school transport services (22%), rural roads (12%), education (10%), and others. Together with physical accessibility mapping for these basic priority sectors, IRAP identified local infrastructure investment gaps. Based on the result, a further study was conducted to locate facilities that could provide the greatest territorial coverage possible to meet the demand for health services, which forms a basis for the local government's evidence-based investment planning.

Implementation of community infrastructure works

Optimizing the use of local resources

With the LRB approach, the greatest emphasis is placed on **local human resources** (i.e. low-skilled and skilled labourer), **local materials** (e.g. construction materials and tools), as well as **local knowledge and technologies** which in turn generate incomes locally that circulate in the local economy. The LRB approaches promote the use of these local resources in community infrastructure works as long as technically feasible and economically justified.

▶ Local human resources

When engaging in local infrastructure development, actual work quality depends on the capacity of local construction industries (i.e. contractors)¹, the capacity of local institutions and the decentralization processes, or local community structures and situations when applying community contracting. In all cases, the capacity development of relevant stakeholders affects the sustainability of the benefits of improved infrastructure. This includes the technical and managerial capacity development of local contractors, transparent and effective planning and procurement at the local institutions, as well as empowerment of vulnerable community members.

▶ Local materials

In almost all countries, nature also provides us with useful materials to build sustainable community infrastructure. Economic and environmental costs for these locally available materials are low, since they do not require processing or transportation that involves fuel and other intermediary costs. Some of these local materials, such as trees, are renewable in certain contexts, and other earth materials, including rocks and sand, are so abundant and recyclable, requiring low grey energy for extraction.

The social, economic, and environmental benefits of local materials are evident. A relative lack of knowledge about the techniques to leverage these local materials however creates distrust in the local market about their potential benefits. In applying the LRB approaches, the ILO adopts and/or promotes an awareness of the abundance of local materials that can contribute to the sustainable development of the construction industry.

▶ Local knowledge and technologies

In order to apply any technology at the local level, communities need to take ownership to continue to harness its potential. Obtaining the support of the local community is thus key to sustainable outcomes, and local technologies offer a valuable entry point for that purpose as these technologies strengthen the community control of local resources. Local technologies are mostly labour-intensive and affordable for many developing countries

▶ Box 2. Mozambique: benefits of alternative local materials



Since 2016, the ILO has been promoting decent work for an inclusive and sustainable economic transformation in Mozambique, especially targeting young women, under the 5-year -*Moztrabalha* project.

As part of the project, a study was conducted in 2020 to capture the effectiveness of labour-based techniques applied in the construction of rural houses with alternatively produced local materials, such as soil-cement blocks or micro-concrete tiles, in comparison to conventional methods used in the construction industry such as cement blocks and mechanized roofing sheets.

The study found that the construction with the alternative local materials resulted in the reduction of the overall construction cost by 13%, reduction in CO₂ emissions to the atmosphere by 24%, and the creation of 4 times more local employment opportunities along the value chain.

The use of alternative materials has proven to be viable for construction works in remote or disaster-affected regions, providing less expensive construction materials in low-income areas.

¹ For more information on contractors development, please refer to ILO (2020), Small-scale contractor development in the construction sector for employment-intensive infrastructure investments

and their populations, which is a strong conduit for promoting local participation.

Community contracting



The EIIP has successfully demonstrated approaches for the direct involvement of the community in infrastructure works through **community contracting**. Community contracting is a procurement tool empowering communities by ensuring that they have an executive role in the identification, planning and implementation of development initiatives. In other words, a community contract is an agreement between local institutions and community members (either the entire community or representatives) in which the community undertakes to implement development initiatives according to mutually established processes and funding arrangements. In simple terms, the community undertaking the works is the contractor and the local institutions or decentralised

entity is the client. The partnership does not act as a means only of delivering project outputs but also of building local capacity, credibility and confidence. It is a conduit for social dialogue among community members and the local government and it is also a means for women's empowerment when women take up executive roles in the decision-making processes.

The extent to which a community takes responsibility may vary depending on the situation and the contracting model used. The contractor is often either the whole community, a specific group within the community (youth, women, vulnerable families) or a small enterprise within the community. The contractor is often a beneficiary of the created assets at the same time. Important issues in community contracting are;

- ▶ direct selection of the target group instead of competition,
- ▶ obtaining preliminary cost estimates,
- ▶ ensuring advance payments,
- ▶ analysis of profit margins, and
- ▶ capacity building and technical support for the contractor.

Community contracting can be an opportunity to include vulnerable groups through specific intervention schemes to respond to community needs (e.g. special sanitary and care facilities, a crèche during the working hours, or quotas for women's participation, setting a threshold for the participation of people with disabilities, etc.).

Encouraging participation and targeting vulnerable groups

The LRB approach encourages the participation of the target groups in the planning, implementation, monitoring and evaluation of the interventions through participatory mechanisms. This includes vertical participation (i.e. communities and local governments), horizontal participation (i.e. within communities, and between sectors). Such participation includes social audits.

The ILO and therefore the EIIP promote equal rights at work and provide equal opportunities for women, and marginalized and disadvantaged groups.

1. Women

The LRB approach generates opportunities for women in local communities to participate in all stages of public works.

"Illustrated Guidelines for Gender-responsive Employment Intensive Investment Programmes (EIIPs)" was the outcome of a series of studies carried out on gender and public works based on evidence from more than 43 projects



implemented in 27 countries. The guidelines highlight how the EIIP cycle has entry points where gender equality can be promoted. Such entry points include: ensuring that disadvantaged groups can participate in, and meaningfully contribute to the planning and implementation of rural infrastructure; engaging women in the planning processes; and ensuring that they can also benefit from the employment offered. Enabling women to take up employment also requires specific measures

depending on local customs and culture. Measures that tend to enhance women's participation include: equal pay for work of equal value; child care; quota setting; making work available and close to home; flexible working hours; and options for part-time work.

The EIIP has offered many vulnerable and illiterate women the opportunities to work for wages, and to enter the traditionally male-dominated construction sector to acquire on-the-job skills, which they can apply to their subsequent work.

2. Youth

The population in developing countries is often rapidly growing and a growing number of young people are entering the labour market. However, the labour demand has not kept up with the growing labour supply, leaving many young people unemployed. Young people, particularly in rural areas, have difficulty finding employment opportunities due often to the lack of work experience and may opt to move to urban areas or outside the country through irregular routes. Engaging youth in local community works gives them the opportunity to gain the necessary work experience and improve their employability through teamwork, skills and entrepreneurship development.



3. Indigenous and tribal people

Marginalized and disadvantaged groups include, among others, indigenous and tribal people, who usually belong to certain categories of vulnerable workers, such as subsistence workers, seasonal workers, outworkers, migrant workers and casual workers. In particular, indigenous women in rural areas, who are disproportionately susceptible to prejudice as a result of discriminatory social rules and norms, are in need of support of access to local natural resources (e.g. land and water), as well as finances and other services.



▶ Box 3. The Gambia: youth employment and entrepreneurship through the LRB approaches

The ILO implemented a project in The Gambia in 2018-2019 to create job opportunities for unemployed and low-skilled youth, specifically targeting women, people with disabilities, and returning irregular migrants. The participating youths acquired the LRB road construction technique called *Do-nou* through on-the-job and theoretical training. The technology requires only locally available materials such as gunny sand bags, earth materials such as sand, farm soil or gravel, and hand tools.

Entrepreneurship training was also provided as part of the curriculum, after which some 250 youths formed business associations and launched two enterprises¹. After the completion of the EIIP project, these enterprises secured contracts from local municipalities to demonstrate their skills and continue their businesses. The LRB road construction technology was transferred to the Gambian Technical Training Institute (GTTI) and integrated into its training curriculum for future engineers, ensuring the sustainability of the intervention.

² For more details on local enterprise development, please see "[Developing the construction from industry for employment-intensive infrastructure investments](#)" (2020) or [Small-scale contractor development in the construction sector for employment-intensive infrastructure investments](#) (2020).

► **Box 4. Inclusion of indigenous and dispersed rural communities through water and sanitation projects in Nicaragua, Panama and Paraguay**

The EIIP applied the LRB approach in Latin America to plan, build and manage water resources with indigenous and dispersed rural communities under a Spanish-funded programme in support of the achievement of the Millennium Development Goals (MDGs).

The impact of the methodologies applied was assessed and proven to be effective and sustainable in improving rural communities' access to water. IRAP guidelines were used to identify investment priorities, and community contracting

was used to increase the participation and ownership of the target groups.

Local agencies and regional governments were supported to provide drinking water to distant communities that experience annual droughts. The project evaluation showed that the regional government saves \$ 2,500 per month compared to a time when water was transported during the dry season (due to purchasing costs for water, fuel, lubricant and personnel) and, more importantly, people are happy because the facilities they build using their knowledge and local labor has solved their problems of access to water³. The LRB approach and experience have since been integrated into the UN World Water Development Report for 2016 under the title "Water and Jobs".

³ MDG-F EVALUACION FINAL Gobernanza Económica Democrática, Fortaleciendo capacidades para la definición y aplicación de políticas de agua potable y saneamiento, Marzo 2013

4. People with disabilities

People with disabilities are also at risk of social exclusion. They often have difficulties accessing employment opportunities due mainly to the social discrimination. By creating job opportunities and supporting skills development to improve their employability, they are more likely to increase their potential to generate income and improve their livelihood, while contributing to the contractors and local economy at the same time.



Improving employability through appropriate technologies and skills training

Capacity building for vulnerable groups and finding ways to facilitate training of community members with no access to formal TVET is essential to enhance skills of vulnerable groups or self-employed workers in the informal economy with a view to facilitating transitions out of informality.

Learning by doing is key: combining theoretical lessons with on-site practices allows local people, especially those who are low skilled, to access job opportunities. At the same time, it helps them to acquire skills on non-traditional techniques such as maintenance of constructed assets.

▶ Box 5. Nicaragua: LRB in the collection and storage of water

The ILO implemented a project in 2012 on the economic governance of water and sanitation systems in indigenous and dispersed rural communities. Various skills development opportunities were provided, including techniques to identify water sources, to build pumping or gravity-fed spring water supply systems, as well as to design rainwater storage systems using appropriate technologies and materials for its collection, storage and purification for consumption.

On the project, 109 people were trained in the construction and maintenance of Water and

Sanitation (WASH) systems, of which 81 (40% women) qualified as entrepreneurs. Thirty five service providers were trained in appropriate technologies and business organization issues

As part of effective water governance, several local entities (associations for potable water and sanitation management, or *Comité de Agua Potable y Saneamiento* (CAPS)) were established. This has enabled a greater engagement of local people in the execution, administration and maintenance of the WASH system. These local entities also have a voice at consultation and discussions with the municipalities, including controlling and influencing the allocation of investments in their communities.

Community infrastructure to support sectorial value chain in local economic development

The EIIP has worked with other units in ILO to design tools for the use at local government level to identify community infrastructure priorities for improving the performance of those economic sectors that could add value to the local economy. Such tools include Value Chain Development (VCD), Local Economic Development (LED) and Local Economic Recovery (LER).

With these tools, community-level infrastructure needs in specific economic sectors can be identified in the way that the intervention schemes provide employment and income opportunities to local people, particularly in rural

areas. Those economic sectors often include agriculture, livestock production, fisheries and aquaculture, tourism, transport, small industries and handicrafts, trade and retail. Once the sectors are identified, the infrastructure needs of each sector can be determined. For example, if agriculture and, in particular, rice production is a main economic activity, the community infrastructure needs at the beginning of the value chain may include small-scale irrigation schemes, footpaths and footbridges, village drying areas, feeder roads, storage facilities and small warehouses, loading platforms and local markets.



Recommendations

▶ Invest in more and better community infrastructure to increase the employment impact of investment

Community infrastructure needs can be enormous and investments often fall short of these needs. To reduce the backlog of investments, governments at national and local level may decide to allocate more funds for community infrastructure development. Increasing local participation at the planning stage also increases the allocation of public investments in the construction and maintenance of community infrastructure, offers business opportunities to local entrepreneurs, and creates jobs. The LRB approach generates more local employment opportunities, increases market prospects and stimulates the local economy. Additional resources to supplement the works can be obtained through partnerships and support from local governments.

▶ Institutionalize the LRB approaches for sustainable outcomes

Maintenance of infrastructure is a long lasting source of employment, as long as microenterprises or community-based service provider organizations are formed, adequately trained, recognized as organized entities, and continue to deliver the services. Linking the LBR approaches with the government budget, and/or sustained budget allocation support for such maintenance works could expand the indirect and induced effects of public investments in the community.

▶ Encourage participation of local communities in planning and implementation, and develop their skills

Top-down planning of small-scale rural infrastructure projects without consulting the local communities has often turned out to be an ineffective approach, and may result in ineffective projects. The engagement of beneficiaries throughout the project stages leads to better choices and strengthens the participation of local communities in monitoring projects for more sustainable development.

A participatory approach to the planning, design, implementation and monitoring of community infrastructure development has two major advantages: (1) it can improve partnerships between local governments and communities; and (2) it can provide equal opportunities for the participation of men and women within communities, including vulnerable groups such as youth, people with disabilities and ethnic minorities.

Providing training for community members through such a participatory approach promotes market-oriented skills development in the construction sector, enhancing community employability or supporting entrepreneurship.

▶ Leverage local technologies and knowledge as a vehicle for community ownership

Every development project should aim to sustain its intervention results, and community ownership is crucial in this regard. Local technologies and knowledge are the experiences cultivated over time within a community to adopt to its context-specific challenges and opportunities. These local technologies deserve a particular attention as an effective entry point for community engagement in local infrastructure works, as these technologies, which are often labour-intensive, reinforce sustainable community management of local resources.

▶ Consider local materials to enhance the impact of investment

Applying local materials in construction works has various advantages: they are easily accessible and thus cost effective; have positive environmental effects when properly integrated into the construction design; and stimulate the local economy and create more jobs along the local value chain. An awareness of the effective use of local materials should be promoted for sustainable enterprise development, backed by market studies of local materials.

▶ Link local infrastructure development to sectorial value chain analysis at local level

The LRB approaches can be integrated into the infrastructure development planning processes to strengthen the local economy. Participatory procedures of the LRB approaches identify community infrastructure priorities that improve access to markets, support local economic development, and increase the benefit in relevant value chains. Identified community assets will enhance economic performance in target sectors while the use of local resources injects cash into the local economy and generates multiplier effects, which will ultimately lead to improved local economic performance with increased job opportunities and wages.

Resources and Publications

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► Employment Intensive Investment Programme (EIIP)

- Employment impact assessments
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