

# PAVING THE WAY TO SUSTAINABLE INFRASTRUCTURE

AUGUST 2022 ISSUE

Your biannual roundup of news and insights on all things **Infrastructure Asset Management (IAM)** from across the United Nations system and beyond. Part of the joint IAM initiative of the UN Capital Development Fund (UNCDF), UN Department of Economic and Social Affairs (UN DESA) and UN Office for Project Services (UNOPS).













Solar cooker in the Himalaya mountains. CanvaPro license, photo from Belikova Oksana - Getty Images

## IAM UN HIGHLIGHTS

### UN HANDBOOK ON INFRASTRUCTURE ASSET MANAGEMENT NOW AVAILABLE IN 10 LANGUAGES

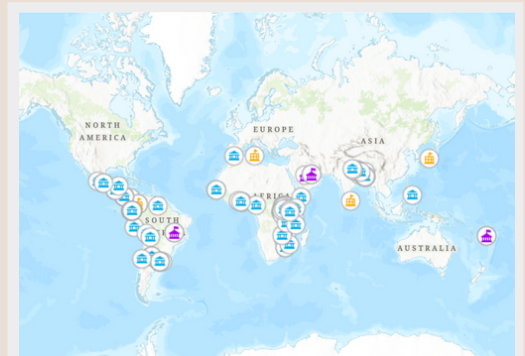
Over recent months, the IAM UN team (UNDESA, UNCDF, and UNOPS) has published the UN Handbook on Infrastructure Asset Management (IAM) in Arabic, English, French, Spanish, Russian, Chinese, Bangla, Serbian, and Swahili. In addition, key toolkits of the Handbook are being released in Nepali. Access the different language versions here:

|   |  |  |  |  |
|---|--|--|--|--|
|  <a href="#">Download in English</a>     |  <a href="#">Descargue en Español</a> |  <a href="#">تحميل باللغة العربية</a>     |  <a href="#">Preuzimanje na srpskom jeziku</a> |  <a href="#">Pakua kwa kiswahili</a>  |
|  <a href="#">Télécharger en français</a> |  <a href="#">中文下载</a>                 |  <a href="#">Скачать на русском языке</a> |  <a href="#">नेपालीमा डाउनलोड गर्नुहोस्</a>    |  <a href="#">বাংলায় ডাউনলোড করুন</a> |

### UN IAM Team embarking on the next phase of IAM activities

- With the support of the United Nations Peace and Development Fund, the UN IAM team is extending its capacity development support to six new project countries. Overall, the team is now supporting 10 countries on IAM including, Nepal, Lao PDR, Costa Rica, Peru, The Gambia, Kenya, Uganda, Tanzania, Somalia, and Bangladesh. Click [here](#) for more information on upcoming workshops
- On 25 March, 2022, the new informal UN Reference Group on IAM held its inaugural meeting. The group brings together key experts and specialists in the field, and will meet at least biannually to advise the UN IAM team on how to further increase the effectiveness, sustainability and scale of its joint technical assistance on IAM. Click [here](#) for more information about the UN Reference Group on IAM
- UN efforts to support countries to use Infrastructure Asset Management for a sustainable, inclusive and resilient recovery from COVID-19 were discussed at a joint UNDESA and UNOPS side event during the [2022 UN High-level Political Forum](#)

### Check out Asset Management Action Plans around the world



# UN IAM ACTIVITIES KICK OFF IN THE MENA REGION

On 20 April 2022, UNDESA (FSDO, and DSDG) in partnership with ESCWA and in coordination with national and local governments in the West Asia and North Africa region held a panel discussion (in Arabic) on the Arabic version of the UN publication: *“Managing Infrastructure Assets for Sustainable Development: A Handbook for Local and National Governments”* - also referred to as the UN Handbook on IAM.

The launch event was attended by more than 70 representatives from national and local governments, as well as relevant stakeholders from the region. The panel discussed how public sector officials involved in IAM can use practical tools from the UN Handbook to ensure more reliable and resilient public services that leave no one behind.



Source: AAWSAT. (2022). 100 مليار دولار سنويا حاجة استدامة البنية التحتية في الشرق الأوسط وشمال أفريقيا

Following the event, Saudi Arabia's Asharq Al-Awsat Newspaper, one of the most widely disseminated regional news outlets, interviewed Mr. Navid Hanif, Assistant Secretary-General for Economic Development about the importance of infrastructure asset management in the MENA region.

You can access all our news coverage here on our website:



## Interview with Mr. Navid Hanif, Assistant Secretary-General for Economic Development, at the Asharq Al-Awsat Newspaper

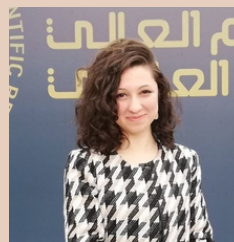
What is the importance of this guide and how will it help Arab governments to manage infrastructure assets?



More than 90 percent of the SDGs is directly or indirectly linked to infrastructure. Also, undermaintained infrastructure can lower annual GDP growth by 2 per cent.

As for the MENA region, we know that only one billion dollars invested into better infrastructure can create almost half a million jobs in the long-run and lead to a 0.5 percent increase in the rate of economic growth. We launched the Arabic version of the UN Handbook in a regional virtual event, which is the first step for upcoming cooperation with many national and local organizations and governments in the region to start using the Handbook and practical tools to ensure more resilient and reliable services.

## Layla Kloub, Journalist from the BBC News, spoke to Eng. Alaa El-Harraky, Communication and Outreach Consultant at FSDO, UN DESA



On the launch of the UN Handbook on IAM in Arabic for the Middle East and North Africa:

Infrastructure asset management is about building and maintaining everything from water systems to schools, from roads, rails and airports to hospitals and the energy grid. Often this responsibility rests with overcommitted and hardworking local government officials that do not have the necessary resources, organizational practices, or skills to do so. With this Handbook, we are trying to support them with concrete, strategies, tools, and training to manage such crucial infrastructure over their entire lifespan. That's where the Arabic version of the UN handbook on infrastructure asset management and our online training courses come in.



# FEATURE



**You have worked with local governments from around the world on a wide range of development issues. To what extent do local governments integrate infrastructure asset management into their daily work?**



Overall, the record is still mixed. Some impediments remain. First, infrastructure asset management requires some degree of expertise which is lacking among municipal staff. The current global emphasis on building local capacity and the push in favor of the professionalization of the City Hall will improve this situation.

Second, many local governments do not know what they own and what they are responsible for. They need to first carry out an inventory of assets and continue the process with the valuation of these assets as well as the quantification of their maintenance and operations requirements. Asset management requires the collaboration of the technical and financial municipal departments as well as with utilities professionals. But, more importantly, it requires that local governments understand what they can do to support infrastructure assets.



**Can you think of success stories where local governments bought into the need for better infrastructure asset management and whether they were rewarded with real tangible benefits over time?**



Asset management is slowly becoming a front and center issue in many places. Urbanization growth is creating undue pressure on existing infrastructure and services. Also, the decentralization process and the accompanying devolution of functions to local governments are also placing an increasing burden on local finances, as well as on skewed resources. Knowing what they own and forecasting what they need to fund, current and future maintenance needs are essential to local governments. In addition, many cities are very dependent on land-based revenues, therefore, any additional revenues tied to specific land development/infrastructure projects will have a measurable impact on revenue generation. In recent years, cities have explored ways to capture increases in land values related to new infrastructure projects. Cities such as New York, London, Paris, Chinese cities, Bogota, and Sao Paulo have made it a major component of their urban infrastructure financing. Asset Management is a key component in the design and implementation of these initiatives.

The [UN Handbook on Asset Management](#) defines *infrastructure assets* as **all physical assets that are essential to the delivery of basic public services.**

Such assets include **traditional infrastructure facilities**, like roads and water and sanitation systems, as well as the **land** that roads are built on, the **buildings** that house essential services and the **equipment and information technology systems** needed to operate and maintain them.



**What are the frontiers of infrastructure asset management? Are there innovative solutions on the horizon that will make it easier for asset managers to ensure better functionality and greater resilience of their assets for present and future generations?**



One issue is the actual localization of city/municipal assets. In many countries, street addressing does not exist, rendering operations and maintenance as well as billing difficult. The World Bank has developed a street addressing methodology which has been rolled out in some countries with the goal of using street addressing systems for urban management applications, including asset management. The World Bank has also introduced Urban Audits (UA) and Municipal Finances Self-Assessments (MFSA). Some sections of the UA help local governments map out existing assets and identify location-based gaps in infrastructure and services. Some sections of the MFSA help local governments quantify the operations and maintenance financing needs of existing assets. The key outcomes of the UA are a Maintenance Program and a Capital Investment Program based on the urban analytics of the UA while the MFSA provides matching answers (or pending questions) on the financing needs and the need to prioritize. These tools have been rolled out in many countries in Africa, and 100 cities and towns in southeast Europe are using them.

In summary, asset management needs to be demystified. It is a complicated topic which requires some expertise, but it is not as complex as it seems. There is often a misperception at the local level of what it is, how it is done and the benefits it can bring. Asset management is an undeniably key component of a solutions package which local governments need to tackle to confront the urbanization challenges of the 21st century.

*(Interview has been shortened for brevity for publication purposes)*



**Catherine Farvacque-Vitkovic** (CD, Ph.D., FCSCE, PMP) is a Lead Urban Development Specialist in World Bank. She has led the preparation and implementation of a large number of urban development and municipal management projects around the world and has been the recipient of numerous awards for excellence. She is the author or co-author of several sector studies as well as several books, such as Crest 1650–1789: La Ville et Son Evolution; and Reforming Urban Land Policies and Institutions in Developing Cities, among other publications.

# TOWARDS SUSTAINABLE ASSET MANAGEMENT: VOICES FROM NEPAL

We invited three senior government officials from Nepal to share their insights and recommendations on how to promote more sustainable infrastructure asset management at the local, and national levels in Nepal.

**Q1: Why is infrastructure asset management important for Nepal? What critical assets must be managed more effectively to achieve the Sustainable Development Goals (SDGs) by 2030?**

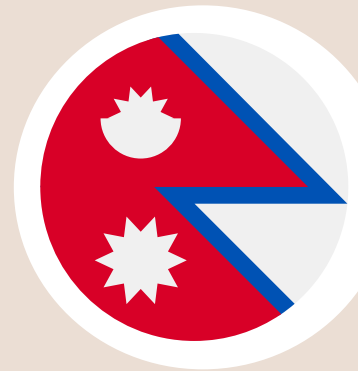
**Er. Krishna Prasad Sapkota:** With the overall growth of towns and cities, investments in infrastructure projects are increasing in Nepal. This process entails careful planning and management of these new assets. While municipalities are concentrating on building new infrastructure, it's very necessary to draw attention to the sustainable management of new and old assets. To achieve the SDGs in Nepal, the development of infrastructure needs to be carefully balanced with the sustainability of public utilities, continuity of public services, and regular operation and maintenance of public assets. Proper management of infrastructure assets is key to ensuring their sustainability given the scarce financial and natural resources.



**Mr. Bamdev Adhikary,**  
Secretary, Office of  
Auditor General



**Er. Krishna Prasad Sapkota,**  
Executive Director of  
Town Development Fund (TDF)



**Mr. Dilaram Panthi,** Joint  
Secretary and head of  
'Budget, International Audit  
and Asset and Liability  
Management' division at  
Ministry of Finance/Financial  
Comptroller General Office

**Q2: What are the experiences with advancing infrastructure asset management in Nepal so far?**

**Mr. Dilaram Panthi:** Keeping public records of assets has been practiced for a long time in Nepal. The law stipulates the *Financial Comptroller General Office* to be responsible for recording and reporting on public assets. In order to integrate the records of public assets as part of an ICT system, the Government of Nepal has decided to use the *Public Asset Management System* (PAMS) at all levels of government.

The technical management of PAMS is also supported by the financial, and comptroller general offices. However, the outcome is yet to be satisfactory. Further work needs to be done to include technical supervision, valuation, repair, and maintenance of infrastructure assets, among others. Development partners of PAMS, which include the Asian Development Bank and the World Bank, are working to introduce various systems to advance on effective records, practices and operations, as well as to enhance maintenance plans on infrastructure sectors like roads, drinking water systems, irrigations, etc.

During the integration of infrastructure systems with PAMS, an automated mechanism will be set up to prepare the records of existing and future assets. Actual capacities of human resources and structures are improved in such a way that existing physical infrastructure can be properly recorded, evaluated, and updated according to standard methods. For this process, a separate system is needed for capacity building, training, and motivation of human resources. It also requires the active involvement and collaboration of representatives of local and central governments.

**Q3: Why is political buy-in required for long-term infrastructure asset management? What is the most effective way to ensure political willingness and support at the local and national levels?**

**Mr. Bamdev Adhikary:** For the best and uninterrupted public service delivery, it's important to have proper and sustainable management of public infrastructure. Existing legislative provisions are not adequate to address the issue of systematic management of assets. Commitment of policy makers is equally important. It's important to ensure transparency and accountability in records, operation and maintenance and other management of public assets.

(Interview has been shortened for brevity for publication purposes)



**SUBMIT ANY COMMENTS, INQUIRIES OR IDEAS FOR CONTRIBUTION TO A FUTURE ISSUE [HERE](#).**



**IAM homepage**

# AMAPS IN ACTION IN UGANDA

Mr. Bwante Moses, who took part in the UN Online Solutions Dialogues on Infrastructure Asset Management in 2021, together with his team developed an Asset Management Action Plan for Kiboga DLG in Uganda ([available here](#)).

**"As captured in our Asset Management Action Plan,** in our local government road asset equipments are managed well by ensuring repairs and services are done in time, similarly, gate passes are always prepared for all equipment. Logbooks are our norm, and assessments are always prepared for repairs to be carried out.

Procured parts have to go through authorized stores and need to be confirmed by the internal auditors. Requisitions must be also prepared for our suppliers so that they receive their payments on time."



Photo © Frank VandenBergh from Getty Images. Canva Pro License



*(The contribution has been shortened and edited for brevity for publication purposes)*

## IAM INNOVATIONS

### THE IRISH NATIONAL PAVEMENT NETWORK



Photo © Ireland Road from @fotobyk - Getty Images: Canva Pro License

In the absence of a widespread rail or water transport network, Ireland's road network plays a vital role in the country's economy. A large proportion of the road network consists of "legacy" roads that have evolved from historic routes that are often constrained by physical or environmental conditions. This diversity in road construction as well as varied traffic volumes, leads to significantly different deterioration and levels of failure across the network. Constraints in the geometrical alignment also tend to alter how the route is driven. For example, the average inter-urban speed is lower for routes with tight bends.

To manage this diverse network effectively, it was decided to define a series of five subnetworks in DTIMS by grouping similar sections such that there is considerably less variation in pavement condition, traffic and construction type. This approach enabled the service levels set for the different sub-networks to take account of the differences in traffic levels, pavement type and foundation characteristics of each sub-network. The approach recognizes the necessity to adopt progressively lower performance levels on sub-networks 1 to 4. The performance levels are also used at tactical and strategic level for management of the network.

*Adapted from German C. (2015). The Irish National Pavement Network. Available in Deighton.com*



To opt out of receiving this newsletter, please send an email to [iamh@un.org](mailto:iamh@un.org).