Post COVID-19 Recovery in Informal Settlements

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SUMMARY

In the UNECE region there are approximately 50 million people living in informal settlements, with a large percentage of them in Southern and Eastern parts. These settlements typically have dense populations, limited services, including water supply and sanitation, inadequate transport, unregistered residents, inadequate housing with insecure tenure, and unregistered land rights.

A plan to address the specific challenges of COVID-19 within informal settlements is urgently needed, while also addressing the achievement of the Sustainable Development Goals (SDGs). This Recovery Action Plan provides an extensive list of Goals, Targets, and Actions that can be advanced by governments, local authorities, residents, community leaders, non-governmental organizations, and other stakeholders to help mitigate and/or prevent the COVID-19 pandemic spread. It is also designed to help build back better to achieve greater resilience against future pandemic risks while simultaneously helping to achieve the Goals of the 2030 Agenda for Sustainable Development, with a particular focus on SDG 11 on sustainable cities and human settlements.

The format of the action plan is built around **9 broad Policy Areas**, and each of these will begin with a main Goal for that Policy Area. Under each Goal there will be a number of Targets. These are essentially secondary goals, under the main one. Each Target includes a number of individual Actions to help achieve these Targets.

The integration of informal constructions within the formal markets, legal framework, land planning, and appropriate administrative adaptation will help achieve resilience and the SDGs. Buildings registers and the address register data were among the most useful datasets during the COVID-19 pandemic. It is important each building to be included in the building register, no matter if it is registered or not in the cadaster for risk analysis and response.

The Recovery Action Plan for informal settlements and the work at community level should also be envisioned in parallel with other urban and rural community development needs and activities. In rural areas a focus on safe and sustainable agriculture and rural development and diversification of the rural economy should incorporate the concepts discussed herein.

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1. INTRODUCTION

1.1 What is the problem?

There are an estimated one billion urban dwellers living in informal settlements worldwide, and approximately 50 million in the UNECE region. These settlements have been built outside the formal system of laws and regulations that ensure tenure, legal ownership and safe, resilient structures. The problem is particularly acute in the Southern and Eastern parts of the region, where in some countries the percentage of informal constructions mounts to 20 percent to 30 percent in some urban areas.

The European region has experienced a rise of urban dwellers who cannot afford to pay the rising cost of rent, particularly in the more prosperous and larger cities. Even some Western European countries have also have more than six per cent of their urban dwellers living in insecure housing conditions.

1.2 Formalization efforts in countries in the UNECE region

Informal development is not new for the UNECE region; several formalization projects have built experience in countries such as Greece, Italy, Portugal, Spain and Turkey but have not really managed to fully eliminate the phenomenon. However, in the early 1990s the number of informal settlements in the region has increased rapidly, as a result of the political and economic changes in Eastern Europe and former-Soviet countries.

In general, informal settlements are not registered in property registration systems, and, as a consequence, cannot not be mortgaged, formally transferred, inherited, or rented. Moreover, most of these informal settlements are not subject to taxation.

European and Central Asian land reforms and property registration projects were at risk, mainly because such large amount of dead capital is a challenge to national economies and, equally important, the missing information about properties, constructions, property rights, as well as about people who live and work in these settlements, impedes sound decision-making by governments and experts.

Therefore, many countries were encouraged to initiate formalization projects. These include:

 Privatizing occupied state-owned land to occupants and determining compensation for occupied privately-owned land;

- Providing ownership titles, and registering those in property registration systems, allowing property transactions and mortgages;
- Revising zoning and planning procedures, as well as developing regulations and standards;
- Regularizing and upgrading informal settlements; and
- Applying controls and upgrading individual constructions.

International research examined the causes and types of informal housing development in countries such as Albania, Cyprus, Greece, Kosovo,1 Kyrgyzstan, Montenegro and the Republic of North Macedonia, and assessed the governments' policies to address this challenge. Despite the good efforts, it was identified that several complex reasons have delayed the formalization progress in some areas, some quite difficult to be addressed. For example, weak private-property rights due to established policies, as well as ecological and other concerns imposed by the constitution have exacerbated the problem. Based on this assessment, the UNECE Guidelines for the formalization of informal constructions were compiled and published in 2019.

Urgent action is needed to enable residents of informal settlements to stay safe and healthy and thus increase resilience to any future pandemic and natural disaster. Formalization projects can help overcome some of these resilience challenges, while also helping to achieve the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) and build back better from the COVID-19 pandemic. Informal settlements are particularly vulnerable to the impact of disease outbreaks by the very nature of how people live within them, their general lack of planning and the common physical inadequacies in service provision, limited access to sanitation and hygiene services, density, energy efficiency, transportation networks, etc.

2. A PANDEMIC FREE AND SUSTAINABLE VISION OF THE FUTURE

In 2015, the United Nations Member States adopted the 2030 Agenda for Sustainable Development. A sustainable future can only be achieved if our leaders, professionals, and peoples come together so that all of us are protected from the current and future pandemics and the other impending crises, including climate change, that the global community faces. The 17 Sustainable Development Goals are a framework for action to transform our world to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. In 2020, we entered the "Decade of Action" with only ten years left to achieve the Sustainable Development Goals. In this regard, any effort to recover from the COVID-19 pandemic, needs to contribute to "Building Back Better". By joining efforts, land, labour and capital can be used efficiently, and the rights and dignity of all peoples can be protected so that no one is left behind as our societies evolve throughout the twenty-first century.

¹ Any reference to Kosovo, whether to the territory, institutions or population, is to be understood in full compliance with Security Council resolution 1244 (1999) and without prejudice to the status of Kosovo.

Informal settlement residents have much more in common with their formal neighbors than they have differences. The integration of these informal settlements, within the formal markets can help overcome challenges and enrich all of our lives. Some of these challenges and their related goals are obvious. These include how pandemic hot spots can be minimized, sustainability goals achieved, infrastructure upgraded, land titles awarded, tenure made more secure, housing shortages decreased, basic services made more available, water/energy issues abated, etc. Other more subtle problems and solutions may be harder to discern, risks can be minimized, greater harmony achieved, gender inequality lessened, human rights adequately protected, integration achieved greater efficiency, social tensions can be eased, etc. Building an inclusive, just, and sustainable world for all.

Striving to reach these outcomes requires appropriate geospatial, demographic, scientific, crowd-sourced, and other information to uncover and understand the problems. 2 We need the moral fiber and political willingness to proceed in appropriate, just, and inclusive fashion. Effective leadership and communication at all levels can carry us forward, engaging the local communities at all levels. We will need to mobilize sufficient resources, produce a thoughtful strategy and plan at every step of the journey, and we need to sustain our determination and commitment to see these goals achieved.

It is for these core reasons that this Recovery Action Plan was compiled. Mitigation of the risks posed by COVID-19, and increased resilience within informal settlements against future pandemics and natural disasters is our goal. Simultaneously, we propose that a formalization program be applied with appropriate registration and titling to secure tenure and protect the human rights of informal residents. This can provide a pathway toward the greater integration of the informal settlements and residents within every other aspect of society.

3. GUIDING PRINCIPLES AND STRUCTURE

3.1 **Guiding principles**

Many United Nations publications cover topics directly related to the Guiding Principles of this Recovery Action Plan. Of particular note are the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security and their Guiding Principles of Responsible Tenure Governance.3

This Recovery Action Plan is also based on the following guiding principles:

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² UN-GGIM (2020): COVID-19: Ready to Respond. The Role of the Geospatial Community in Responding to COVID-19, available online from: http://ggim.un.org/meetings/GGIM-committee/10th-Session/documents/Covid-19_Ready-to-Respond.pdf

³ FAO (2012): Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security, available online from: http://www.fao.org/3/i2801e/i2801e.pdf

(a) Comprehensiveness

There is no group of measures that can achieve complete protection from all pandemics (or by extension, all the myriad of threats that face humanity in the twenty-first century). The optimal outcome, therefore, is a comprehensive and integrative set of policies and behaviors that balance the dangers of a specific pandemic viral threat (COVID-19 in this instance), with the realities of our world. Specifically, we focus on those that are central to informal settlements in the UNECE region, where risks are more acute, information is sparser, and often there is less "political will", "social will" or trust. These realities in turn must balance culture, competitive societies, the economic engines upon which they depend, science and the very real limitations in natural resources of the earth itself. The actual state of affairs, at a given moment (viral specifics, spread risks, number currently infected and hospitalized, death rate, etc.) balanced with the socio-environmental realities, should drive our decision making at all levels.

Simultaneous cross-sectoral approaches are necessary. One-dimensional solutions may lead to undesired or unexpected results. These often address symptoms of the problem, and can miss the complexity of the blended socio-cultural, socio-economic, and related pure science nature of the myriad of threats facing us and the planet upon which we depend. This Recovery Action Plan should therefore be considered in its entirety. All goals and targets should be understood in the context of a need for targeted national and local policies, logistical solutions, appropriate resource allocation, creative scientific problem solving, a need for good leadership, and socio-cultural adaptability. This is true even if their operational implementation may (and should) differ widely across the globe.

(b) Learning and flexibility

Policies should encourage and embrace best practices and emerging innovations. They should allow for flexibility in approaching various informal settlement challenges. All pandemic threats will raise issues related to culture, society, faith, economics, and governance, and so too should the solutions. The greater the direct connection to how people lives and what they value, the more adaptive we will need to be in responding to pandemic or other wide scale threats if interventions are to be successful.

We should avoid overregulation. This can lead to a host of unintended negative effects. It can also ignore the necessary procedures for pandemic safety due to a lack of resources and capacity, as well as "social will" and communication, especially in poorer countries. A flexible balanced set of solutions needs to be implemented, adapted to the nature of the pandemic or natural threat and local realities.

(c) People-centered approach

It is vital that pandemic response be interlinked with social policies that promote the well-being of society, protect human rights and help reduce social inequality that can lead to unrest and scientifically address the true nature of the threat. To consider any world scale health (or even climate change) in narrow technocratic terms is inadequate from both a social and

Post COVID-19 Recovery in Informal Settlements (11061) Steven Nystrom (USA), Chryssy Potsiou (Greece), Rik Wouters (Netherlands) and Maike Salize (Switzerland) political point of view. To view things narrowly invites opposition and failure despite the best of intentions.

There are large differences across the UNECE region with respect to levels of economic development, legislative and organizational structures, housing and the built environment, informality, leadership, culture, history, faith, resources, and climatic conditions. This is even more true for informal settlements relative to other communities. Informal settlements are at even greater risk, relative to these forementioned factors, due to generally weaker social cohesion, lower incomes and resources, precarious employment and basic utility access, socio-cultural biases, and usually lesser access to education and necessary basic services. The Recovery Action Plan has universal relevance to the UNECE region, and it is urgent that most goals and targets be properly incorporated into policies at both the national and local levels. However, to achieve optimal outcomes, local socioeconomic, cultural, institutional, and geographical contexts must be blended into any implementors thought processes when designing and implementing locally specific measures of pandemic and threat response.

3.2 Structure

The Recovery Action Plan outlines nine policy areas, each of which contains one goal. These are divided into more concrete targets and, in turn, targets are divided in actions to be taken to reach those targets. Direct mention of time frames was excluded as successful implementation will vary greatly based on socio-cultural context, political/local will, (financial) resources, and the immediacy of the pandemic and other threats faced by an informal community. While specific time frames were not presented to allow for greater flexibility at the local level, the general timing ideas are as follows:

- Emergency goals (emergency focused)
 Categorized targets and action points to reach and secure short-term goals; Loosely defined as those to be accomplished in less than 6 months.
- Short term goals (emergency related)
 Categorized targets and action points to reach and secure short-term goals; Loosely defined as those to be accomplished in less than 1 year.
- Intermediate term goals (blended resilience and emergency focus)
 Categorized targets and action points to reach and secure intermediate-term goals. The greater complexity is expected to loosely require 6 to 18 months to accomplish.
- d. Long term goals (resilience focused)

 Categorized targets and action points to reach and secure long-term goals. The greater complexity and nature of the solutions are expected to loosely require more than 1 year to accomplish, often 1 to 5 years.

Within the "Policy Areas", colours indicate the timing of the individual targets and actions.

4. CROSSCUTTING THEMES

Cross cutting themes permeate the Recovery Action Plan. It is useful to discuss them separately so that they are in the forefront of any implementer's mind. They should be carefully considered throughout all policy areas when determining the appropriate responses

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and priorities within the context of the local realities, risks, and challenges. The most obvious cross cutting concepts will be dealt with below.

Data collection and management

Throughout all Policy Areas there is a constant theme to collect data, study, analyze and plan. Without the appropriate information it can be difficult to tell the difference between the causes and symptoms of problems. A lack of sufficient and up to date information may make it impossible to perform a cost/benefit analysis as part of the determination of implementation priorities. Compiling, maintaining, and updating databases, maps, registries, demographics, street addressing all allow for more appropriate planning and responses to various socioeconomic challenges. Within informal settlements, information on these factors is to a great extent missing. This greatly hampers the ability of local authorities and stakeholders to make and implement appropriate and timely plans. Information registers should be improved using modern tools and techniques to collect (possibly by engaging volunteers) the appropriate missing information. Thus, compiling the appropriate information to support effective governance and developing systems to retain and update this information over time (particularly title registers and cadastral maps and data) can provide subtle but potentially vast benefits to all of society.

The UN Integrated Geospatial Information Framework (IGIF) provides a wide range of strategic pathways, which should be in place, in order to ensure that the data are available at the time they are most needed. The UN-GGIM Ready to Respond. The Role of the Geospatial Community in Responding to COVID-19 publication can also give useful guidance regarding relevant data management.

Communication and Promotional Plans

Messaging, gathering consensus, disseminating instructions, providing data (for example, general data, health/safety, scientific and policy information, communication of community benefits, transparent registry data which support efficient land markets, etc.), can all be thought of as part of a larger open communication plan. All of these are critical aspects discussed throughout the Policy Areas.

The messaging methods, tone, language and communication depth could make the difference between the success or failure of any individual component of the overall Action Plan. Effectively communicating this information, gathering consensus, and providing transparency are critical components of most socioeconomic actions, and this Recovery Action Plan in particular.

Good communication strategies are also key to achieving the maximum potential benefits of the Recovery Action Plan, as well as the greatest benefits from the formalization, upgrading and integration of informality within the formal markets. Appropriate, socially sensitive, and accurate science-based messaging can minimize dissent, help retain "will and positive local perceptions" as pandemic fatigue settles in. It can decrease mistrust, increase compliance with health/safety measures, and speed the way towards the proper implementation of all plans.

Participation Plans

An effective Recovery Action Plan will require acceptance and participation from the mass of residents. It will require the support (or at least a lack of obstruction) of most of the local authorities, limited political opposition and involve the professional community. It needs to balance social, economic, environmental, cultural, and medical priorities. This balance is likely to change over time as the population gains more information and acceptance of safety measures, which will be somewhat offset by frustration and pandemic fatigue. Gaining and retaining wide participation relies upon the other cross sectoral themes. This is especially true regarding consistent and appropriate messaging that is built upon good data and appropriate science, the appropriate resource allocation, inclusiveness, and a sustained local/political will. Engaging and understanding the needs and priorities of the local informal settlement residents, as well as the broader political realities, is critical to gaining and sustaining sufficient participation for maximum effectiveness.

Resource allocation and integration

The appropriate timing and integration of the Policy Areas should be based on local community engagement, cultural, socioeconomic, political, legal, scientific/medical, and a very realistic analysis of risks, benefits, and available resources. Unrealistic plans, even with the best of intentions, are likely to fail and may even be counterproductive. Resources are never infinite and should be utilized pragmatically where and when appropriate. This will vary greatly based on the local context, and thus priorities should be set with these in mind, to withstand the pandemic threat and achieve the SDGs timely. The achievement of some of the Goals and Targets will also build upon each other, with ever greater socioeconomic, mitigative and resilience benefits when accomplished in tandem. This means that the achievement of some goals will feed off each, accelerating benefits because some aspects are interrelated and begin a process of accelerated growth (exponential growth is not impossible).

Economic benefits, local and political awareness and will

The achievement of many of the Goals and Targets listed in the Policy Areas will have a combination of immediate benefits, as well as longer term health, safety, and economic resilience enhancements. These are often subtle and difficult to ascertain. However, the step-by-step removal of systemic governance, institutional, effectiveness and efficiency barriers can have a profound positive effect on a community. These barriers are any aspect of law, social convention, governance structure, data insufficiency, lack of equity, discrimination, bias, prejudice, lack of knowledge both among politicians and the society, lack of ethics and other systemic factors that prevent or distort rational choices. These create inefficient or less effective resource allocation (land, labour and capital) and typically reduce economic performance. Wherever possible, these systemic barriers (inefficiency points) should be identified and minimized.

Additionally, the Goals, Targets and Actions herein touch on a wide range of technical issues, to meet the wide challenges informal settlements face. Many of these require a high degree of complexity and or niche expertise. The necessary capacities (technical, institutional, organizing) to carry out these actions may or likely may not already exist. There will likely be a need to train individuals and strengthen the capacities of institutions to meet these specific challenges.

Post COVID-19 Recovery in Informal Settlements (11061) Steven Nystrom (USA), Chryssy Potsiou (Greece), Rik Wouters (Netherlands) and Maike Salize (Switzerland) Empowering the people legally, formalization leading to the integration of dead or inefficient land and labour capital (allowing for easier access to credit), achievement of the SDGs, and enhancing effective governance will almost assuredly provide great benefits over time. As such, obtaining, and then retaining, local communities trust and political will is critical to the success of this Recovery Action Plan and to obtaining the previously described potential benefits. How to obtain and retain such will require well informed, nimble and effective leadership at key levels within the local community, local authorities and possibly within some levels of national government too.

5. POLICY AREAS

5.1 Introduction

As explained in chapter 3, the action Plan covers 9 different Policy areas. In the chapter all nine are described and the target are referred to. The detailed actions are not included in this paper.

Policy Area 1 - Geospatial, land rights, tenure, resource allocation and justice

Goal 1 Informal settlements are formalized and brought into the formal markets in a just, efficient, and sustainable manner, allowing for broader socio-economic progress, justice, and the empowerment of the people.

Rationale

The right to adequate housing is an internationally recognized human right. In the developing world about 33 percent of urban dwellers live in informal settlements, and there are more than 50 million informal dwellers in twenty-member states of UNECE.⁴ This burdens the lives of residents of informal settlements and increases their vulnerability to COVID-19. These residents interact with and provide vital services to the population of the greater region. While working throughout the formal and informal markets alike, informal settlement residents' greater vulnerability to the virus places all of society at greater pandemic related health-safety risk and weakens the overall economy.

The informal constructions represent "dead capital" (they usually cannot be registered, taxed, transferred, rented, upgraded, or mortgaged). These constructions are not part of the normal economic cycle, which in turn encourages more informal work arrangements. This limited integration of both land and labour markets in the broader economy has pervasive and very costly negative effects on poverty, GDP, risk, real estate values, tax revenue, human rights, and sustainability.

Target 1.1 The land registries and geospatial databases include informal communities and ownership rights to foster greater socio-economic integration between formal and informal residents over time.

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⁴ See UNECE (2019): Guidelines for the formalization of informal constructions.

- Target 1.2 Informal constructions are formalized in a fair, efficient, transparent, and inclusive manner, empowering residents, supporting social and economic inclusivity and better pandemic responses.5
- Target 1.3 The legal rights and justice systems are efficient and adequate for the needs of informal residents. They should support sustainable development, foster greater efficiency and integration of labor and land markets, defend property and tenure rights, be responsive to capital markets, be equitable, inclusive, and provide adequate protections for human rights, and dignity.
- Target 1.4 The institutions underpinning land, labor and capital economics and health-safety concerns are improved to better address pandemic threats and foster economic growth, fairness, and inclusivity.

Policy Area 2 - Involvement of Local Communities and Local Action

Goal 2 Local community-based organizations, coordinated with a city-level team, respond to the pandemic in coordination with government ministries, medical, professional, and aid organizations of all kinds.

Rationale

Consistent, rational, transparent, science-based messaging is critical to any appropriate response to a pandemic challenge. Additionally, local government's engagement and recommendations should be based on the best medical science data and their available resources. Local, national, professional, faithbased, and international aid organizations may also offer crucial coordination and resources. All of these sources of aid and information need to be coordinated and accepted at the local community level. To this end, local community leaders need to be informed and involved as much as is reasonably possible to achieve the highest compliance with science-based plans designed to protect both formal and informal communities.

There are many ways the local informal settlement residents can become involved in safeguarding their community. Organizing and creating local groups to address specific pandemic related challenges may well be key to limiting viral spread with the least negative impact on local society and the economy upon which they depend.

The COVID-19 crisis requires short term responses, that sometimes contradict local customs and/or religious procedures. Strong support from the local community and faith leaders is crucial for successful pandemic response implementation measures.

Target 2.1 Social and community groups are formed to respond to pandemic related threats, engage residents and address the community's specific needs.

For more information see UNECE (2019) Guidelines for the formalization of informal constructions, available online from: https://unece.org/housing-and-land-management/publications/guidelinesformalization-informal-constructions

- **Target** 2.2 Local charities, international NGOs, faith-based organizations and donors coordinate where possible to respond to the pandemic threats and assist in solving community specific challenges.
- **Target** 2.3 *Community based information campaigns provide accurate data* to informal settlements residents, disseminating such information in a timely manner and in detail appropriate to the specific local challenges brought on by the pandemic threat.

Policy Area 3 - Basic Data Needs, Telecommunications, and Information Technology

Goal 3 The people are empowered to cope with a pandemic by leveraging and making easily available the relevant information technologies

Rationale

All sectors of society thrive on having access to reliable source of information and informal settlements are no different. Enhancing access to basic data, telecommunication, information technology, and narrowing the digital divide between the informal communities and formal ones will help empower informal settlements residents, minorities, women, and society's most vulnerable groups. These technologies can be used to help move people out of poverty, increase transparency, supplement education, boost productivity and foster the open sharing of ideas so key to long term prosperity and growth.

Greater access to data also allows for a coordinated response to a pandemic as well as other disasters. It allows for accurate and current information on pandemic risks to be shared in real time with the community. Many different informational, technological, environmental, infrastructure, services and social barriers were identified during COVID-19 pandemic, such as data sharing, data quality, access to services, etc. Creating a risk register with the supporting legal framework, necessary data, technical platforms and services is a good way to consider and weigh the risks facing society.

- **Target** 3.1 *Mobile phone technologies are utilized to their potential* to fill the information gaps among residents, provide social contact and as a tool for the dissemination of critical information and governmental instructions.
- **Target** 3.2 The creation of viable decentralized employment and teleworking options while expanding internet service affordably in all informal settlements.
- **Target** 3.3 *Informal settlements residents have easy access to education and communication* from a variety of electronic sources.

Policy Area 4 - Physical Infrastructure, Water, Sanitation, Hygiene and Energy Services

Goal 4 The public physical infrastructure, water and sanitation networks, and energy grids adequately, sustainably, and equitably support the informal communities.

Rationale

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The public physical infrastructure and related services are critical to the health, safety, security, economic potential, societal structure, protections for basic human rights (especially society's most vulnerable groups) and the attainment of a better, sustainable, and more resilient tomorrow. Within this policy area roads, water, sanitation, and energy grids will be primarily discussed but telecommunication, railways and public transportation are also important elements to be incorporated.

The physical road networks within informal settlements are often unplanned, too narrow, complex, and sometimes choked in places with debris and garbage. Often, they do not adequately and sufficiently allow for emergency service access, efficient public transportation usage, and more sustainable mixed modes of transportation (mass transit, bicycles, foot traffic, as well as cars). This is often due to a lack of governance, planning and a limited availability of geographic, demographic and spatial information in these areas. Enhancements in the physical transportation infrastructure can help to prevent pandemic spread through greater social distancing, faster and easier access to employment, education, health service and shopping areas, increased economic performance of residents (thus increasing their resilience and ability to adapt to challenges), and faster access for emergency responses.

- Target 4.1 The physical road and transportation network is adequate and safe for emergency services (paved, width, etc.), when possible it should be flexible enough to safely accommodate differing modes of travel (mass transit, foot traffic, bicycles, etc. as appropriate), sufficient for economic integration with the formal community and can accommodate pandemic related social distancing.
- Target 4.2 There is safe, adequate, affordable and equitable access to clean water, sanitation services, and hygienic infrastructure. Over time, climate resilient water and sanitation as well as energy efficiency measures should be practically applied as economic feasibility is achieved or donor funds become available to fill resource gaps.
- Target 4.3 Adequate energy services are provided to informal settlement residents incorporating affordability, modernity, improving efficiency, sustainability, renewable energy where applicable, and performance standards practical to the specific local context and achievement of the SDGs as a whole. The availability of such energy services creates greater community resilience to pandemic and other threats, greater equity, stronger economic opportunity, and helps safeguard human rights for societies most vulnerable.

Policy Area 5 – Social and infrastructure services

Goal 5 Essential services are supplied to residents safely and adequately, overcoming the challenges of the pandemic threat.

Rationale

All communities rely on a wide variety of services that are crucial to our modern life. They pervade all of society and the economic foundation upon which we all depend. COVID-19 places unique burdens upon service provision and requires a rethink of how one can safely provide necessary services to the public. This service provision must be modified and expanded, often with little warning, to respond to severe health threats focused on central linkages in our daily lives. It must also be able to adjust for the likely possibility of limited compliance, pandemic fatigue, mixed messaging, mistrust, political backlash, and limited resources. These challenges are not easily overcome but overcome them we must.

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The provision of services can create potential hot spots for viral spread. This is especially true within informal settlements where the limited resources of the residents, dense populations, and limited demographic and geospatial data can make service delivery more unsafe than in formal communities.

It is critical for society and culture to adjust to pandemic challenges in a manner that balances social, cultural, economic, psychological, and health-safety concerns in a responsible manner. Government, community residents, and stakeholders need to come together and adjust how we live and work for the duration of the pandemic threat if we wish to minimize loss of life, economic loss, and preserve as much of our society's values and norms during these trying times.

- **Target** 5.1 *Health service provision is sufficient to meet public need*⁶ for both typical demand and has adequate expansion capacity for pandemic response capacity in place.
- **Target** 5.2 *Emergency service provision is sufficient to meet public need and is scalable for rapid expansion* capacity for pandemic threats.
- **Target** 5.3 *Appropriate community level health education is accepted* at the local level.
- **Target** 5.4 *The financial wellbeing of the community is preserved* and the pandemic threat to stability is overcome with timely intervention and proper planning.
- **Target** 5.5 *The safety, values and culture of the informal settlement residents is preserved* without preventable undue loss of life.

Policy Area 6 - Stay at Home Recommendations, Culture, and Vulnerable Groups

Goal 6 To balance stay at home recommendations with the social and economic realities facing the local culture, diverse populations, and vulnerable groups.

Rationale

Informal settlements and the surrounding communities are populated by a rich, diverse cultural tapestry. Their human right to live and work in safety and dignity should not be compromised by their governments potentially insufficient response to pandemic challenges. The realities of their lives need to be understood so that appropriate solutions can be implemented.

The cost of a failure in pandemic response inordinately falls upon women and society's most vulnerable groups. Already extremely difficult economic choices face informal settlement residents. Stay at home orders exacerbate these challenges, and these residents often already face bias, prejudice, inconsistent justice, corruption, a lack of security of tenure, difficult economic choices, limited infrastructure and services, among a host of other difficulties. They have few financial buffers and cannot afford to stay at home from work, because they can ill afford to lose income and the loss of a job can be catastrophic. Unless appropriate action is taken, a pandemic only makes these problems worse.

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⁶ FAO (2020): The contribution of social protection to economic inclusion in rural areas. Available online from: http://www.fao.org/3/cb2458en/CB2458EN.pdf

Stay at home orders may be the only viable way of combating a pandemic such as COVID-19 when and where cases are spreading rapidly. However, these orders cause havoc within existing social and economic systems. Residents of informal settlements are typically at greater risk of getting infected due to their typical occupations, more likely to be severely affected due to lesser access to health services and balanced nutrition, and have much less flexibility to act prudently due to the myriad of social, cultural, and economic realities facing them.

- Target 6.1 The cultural and demographic challenges in informal settlements are overcome such that diversity and language barriers in informal settlements do not create an additional hazard to appropriate pandemic response.
- Target 6.2 Stigma, bias, prejudice, discrimination, and human rights abuses related to pandemic responses are eradicated in informal settlements and governments increase assistance in the protection of human rights during any health crisis.
- Target 6.3 Low-income residents and vulnerable groups are adequately supported such that food and staple goods are provided during peak pandemic periods and they have the support necessary to be able to comply with stay-at-home or quarantine protocols.

Policy Area 7 - Food, Basic Consumption and Distribution

Goal 7 To ensure the adequate and safe manufacture, and distribution of food, basic consumption goods, and medical supplies.

Rationale

An adequate amount of food, basic consumption goods and medical supplies need to be safely available to informal settlement residents during times of crisis. If these products are manufactured locally, the pandemic might impact their safe production. Alternatively, if they are sources from farther away or imported, shortages might occur at the worst possible times. Additionally, the manufacture of these goods can become more difficult due to pandemic related safety issues, and new regulations may be needed. Worker shortages may limit some basic good production, food processing, and hamper distribution efforts.

An important goal for informal (as well as formal) settlements should be achieving a state of food and nutrition security. The four pillars of food security are availability, access, utilization, and stability. Pandemic challenges make obtaining and retaining these goals more problematic.⁷ When these pillars are jeopardized, plans should be made to overcome the new obstacles to food and nutrition security.

The COVID-19 crisis requires short term stockpiling of necessary goods, and improved safety measures in food processing, farmers' markets, as well as basic goods manufacture. In addition, making sure that

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⁷ FAO Committee on World Food Security (2012): Coming to terms with terminology. , Food Security, Nutrition Security, Food Security and Nutrition, Food and Nutrition Security. Thirty-ninth session (CFS 2012/39/4), Rome, Italy, 15-20 October 2012, available online from: http://www.fao.org/3/MD776E/MD776E.pdf

⁸ FAO, IFAD, UNICEF, WFP and WHO (2020): The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets. Rome, FAO, available online from: http://www.fao.org/documents/card/en/c/ca9692en

the supply chains function adequately is of the highest priority throughout any crisis. The short-term response also requires fairness and justice in the distribution of these goods and suffers when corruption disadvantages inhabitants.

- **Target** 7.1 Adequate safe access to food and basic goods with appropriate social distancing measures is provided by those involved in food, medical supplies, and basic goods distribution.
- **Target** 7.2 Adequate safe access to food and basic goods with appropriate social distancing measures is provided by those involved in food and basic goods production
- **Target** 7.3 *Minimal corruption, black market profiteering, and critical worker shortages*, all of which could hamper both the public and private response to a pandemic crisis
- **Target** 7.4 Local authorities and communities are prepared to deal with labor supply shortages in a pandemic and to support informal settlements residents

Policy Area 8 - Environmental Concerns, Recreation and Social Events

Goal 8 Provide for safer enjoyment of the environment, green spaces, recreational and social activities.

Rationale

Green spaces, sports, music, travel, tourism, and recreational social activities of all kinds are central to physical and mental well-being, a healthy culture and society. However, these activities often violate safe pandemic social distancing and can become super-spreader events when they bring large groups of people together unsafely. A pandemic can spread widely when residents return to their homes after unsafe activities. It is incumbent on local authority and community leaders to provide avenues for the residents of their communities to safely enjoy green spaces and many recreational and social activities central to society and quality of life.

The COVID-19 pandemic crisis requires short term responses appropriate to limit the viral spread during the enjoyment of recreational and social activities. Social activities such as weddings, funerals, and faith-based events that according to local customs "demand" assembly of many people are especially challenging on cultural level. Tact, proper messaging, and community leader support will be needed for any reasonable level of compliance with safety measures for this type of gathering. Long term resilience to pandemics in recreational and social gatherings must be based on the specific characteristics, patterns of viral spread and lethality

- **Target** 8.1 *Outdoor recreation, sporting, music events, and social gatherings* are safe for everyone.
- **Target** 8.2 *Recreational travel, hospitality and tourism* services are provided to visitors and residents in a manner that puts no one at undue risk.

Policy Area 9 - Buildings, Construction and Land Planning

Goal 9. Viral spread risks posed by commercial, public buildings, educational facilities, informal homes, and other constructions are controlled.

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Rationale

The built environment within informal settlements is usually unplanned with a wide variety of physical and legal nonconformity. Commercial, public, and educational facilities pose significant risk as focal points for viral spread. Larger facilities (such as hospitals, schools, community centers, government buildings, transport hubs like train stations, retail and grocery stores, etc.) pose greater risks due to the heavy human indoor traffic, difficulty imposing safe social distancing procedures and limited ventilation. Additionally, informal residential housing tends to be more densely spaced and populated, making quarantining and social distancing more difficult.

Governmental officials should use appropriate planning to limit viral spread at hot spots. They need to understand the normal movement patterns of people within specific informal settlements and adjust these patterns to limit high density travel in locations that could become high viral spread junctions.

The structures and layout of the communities create many risks and inefficiencies that impedes long term economic success, health, safety, and the security of its residents. Limited planning can also create an environment more conducive to viral spread within the broader community.

- **Target** 9.1 Large and intensely utilized commercial, educational, and public facilities are safe (hospitals, medical centers, government buildings, schools, transport hubs, shopping centers etc.) are operated safely.
- **Target** 9.2 Sustainable adequate housing is available for all classes of informal settlement residents.
- **Target** 9.3 *Roads, foot paths and choke points* have lower peak traffic.

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Steven Nystrom is director of NewStream Companies, a Florida based real estate appraisal, finance and consulting firm which provides a wide range of specialized real estate services.

These services include, but are not limited to appraisals, real estate finance, litigation support, site inspections, mortgage investment, equity buyouts, and feasibility studies.

He is involved in International Federation of Surveyors (FIG) for many years, currently as chair of Commission 7.

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Dr. Chryssy Potsiou graduated from the School for Rural & Surveying Engineering, National Technical University of Athens (NTUA) in 1982. In 2005 she became a Lecturer teaching Cadastre and Land Management and Valuation.

She attended the MIT (Massachusetts Institute of Technology) professional education courses on Real Estate Markets in 2006.

She has 29 years experience in education, training and international capacity building in land management and administration. Since 1982 she is active in the International Federation of Surveyors (FIG)

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Rik Wouters is Director of Eureg Advice. Until March 1st 2021 he was senior Programme Advisor in the Land-at-scale program implemented by RVO. Before he was senior land expert at the Netherlands Kadaster since 2012.

Between 2008 and 2019 he was vice-chair and member of the WPLA. From May 2012 until June 2018 he was Managing Director of EULIS. He was 7 years account and project manager at Kadaster International. He worked 10 years for the private ICT sector as a consultant and 5 years as land expert in international projects in Africa and Asia for FAO. He graduated Wageningen University as land management expert..

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