



Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

## Twist and Tango – Mines moving cities in Arctic Sweden

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[Kiruna from Tuolluvaara September 2017 01.jpg \(6016x4016\)](#)  
(all pictures with links are from wikipedia commons)



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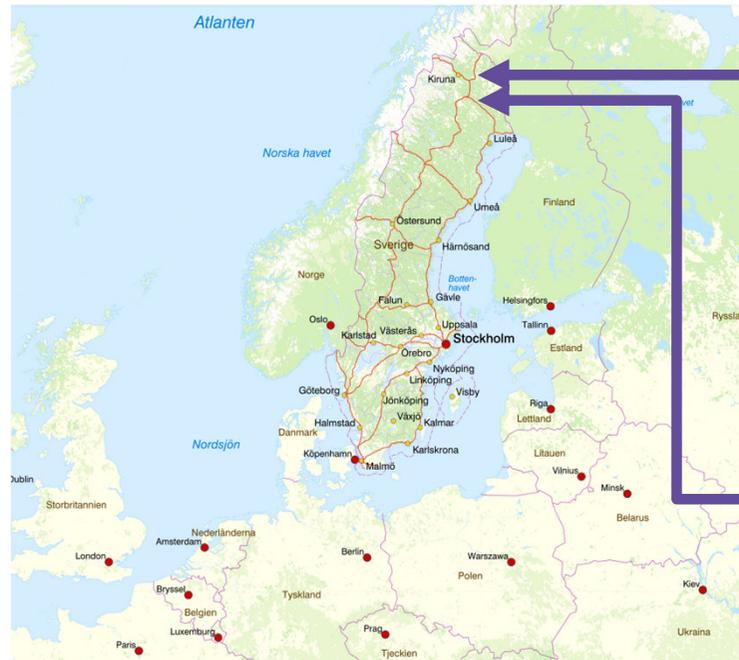


## Two of the worlds largest underground iron mines are located in arctic Sweden

And the towns adjacent to the mines must now move, due to deformation of the ground surface.

In the paper the proceedings of the transformation of the town Kiruna is described briefly.

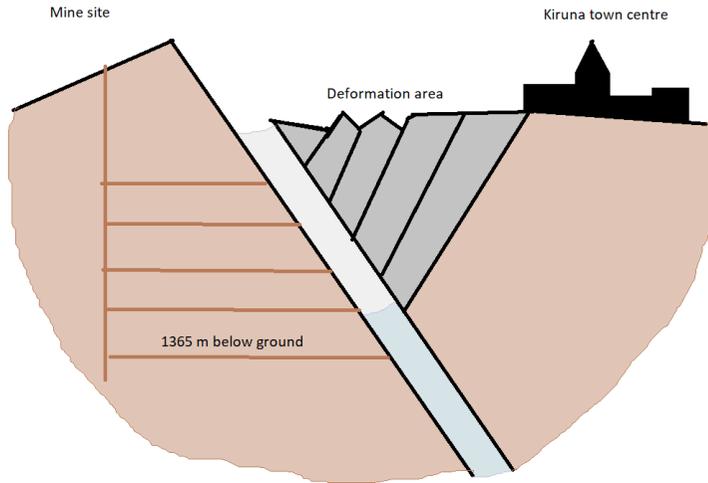
Also the legal framework is assessed against international standards on compulsory aquisition (the VGGT's)



[Kiruna from Tuolluvaara September 2017 01.jpg \(6016x4016\)](#)



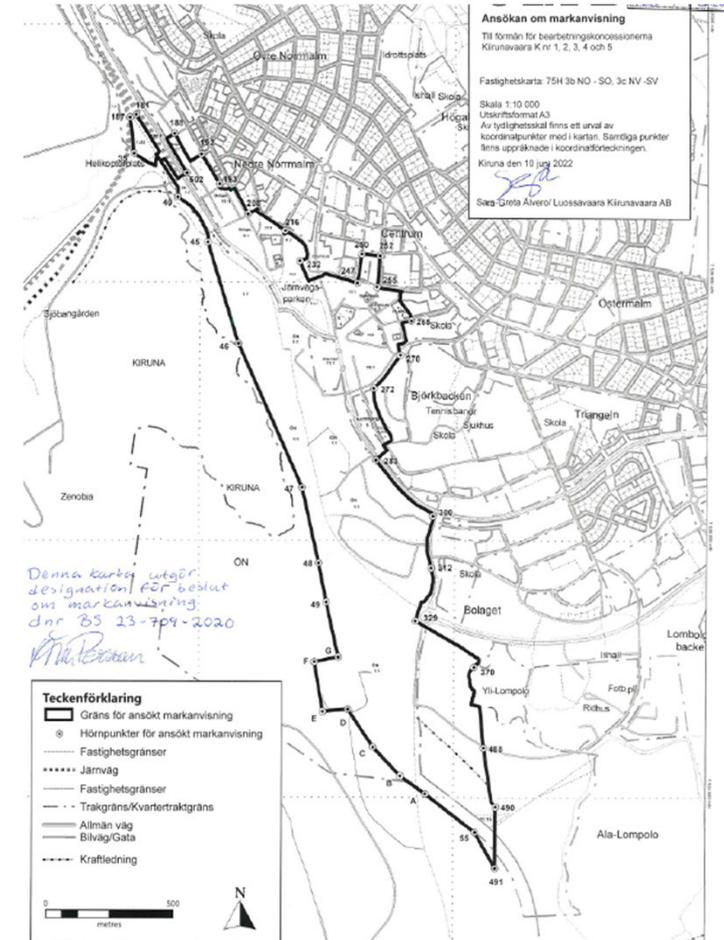
[Malmberget Sweden.jpg \(768x512\)](#)



As the mining activity expands under the urban areas, the city must relocate to the east, a few blocks at a time.

Land is acquired by the mining company, mostly through voluntary agreements.

New buildings and infrastructure is paid and built in partnerships.



A new town centre is built as the former is dismantled.

Many landmark buildings are moved to preserve cultural heritage and social capital of the town.



Church of Kiruna, soon to be moved



[Kiruna Kiruna centrum September 2017 11.jpg \(6016x4016\)](#)



[Kiruna station 2017 02.jpg \(4643x2612\)](#)



[Kvarteret Ort drivaren September 2017 26.jpg \(4216x2372\)](#)

## ASSESSMENT OF THE LEGAL FRAMEWORK OF COMPULSORY ACQUISITION IN THE CONTEXT OF MINING OPERATIONS

List of Expropriation Indicators (Table 6 in Tagliarino)	
1. Do the national laws provide a clear conceptualization of public purpose to allow for judicial review?	Partial
2. Do the national laws require the government to minimize the amount of land acquired to the amount necessary to achieve a public purpose?	Partial
3. Do the national laws require the government to conduct a proportionality test prior to expropriation?	No
4. Do the national laws require the government to conduct a feasibility study prior to expropriation?	Partial
5. Do the national laws require an environmental impact assessment (EIA) prior to expropriation?	Partial
6. Do the national laws require a social impact assessment (SIA) prior to expropriation?	Partial
7. Do the national laws establish special protections from expropriation for areas held by poor and vulnerable groups?	No
8. Do the national laws grant affected landholders the right to reacquire the land in the event that the land is unutilized or no longer needed for the project?	-
9. Do the national laws obligate the government to identify all affected landholders prior to expropriating land?	Yes
10. Do the national laws require the government to provide information to affected landholders about the reasons for expropriation?	Yes
11. Do the national laws require the government to consult affected populations prior to expropriating land?	Yes

List of Compensation Eligibility Indicators (Table 8 in Tagliarino)	
1. Is compensation provided for formally recognized IPLC tenure rights?	Yes
2. Is compensation provided for unregistered IPLC tenure rights?	Partial
3. Is compensation provided for formally recognized IPLC tenure rights regardless of whether the IPLCs developed or made improvements on the land?	Yes



[Kiruna September 2017 01.jpg \(5864x3915\)](#)

## ASSESSMENT OF THE LEGAL FRAMEWORK OF COMPULSORY ACQUISITION IN THE CONTEXT OF MINING OPERATIONS

Compensation Valuation Indicators (Table 9 in Tagliarino)	
1. Does the law allow for assessors to follow an alternative approach (e.g., 'replacement cost' approach) instead of a "'air market value approach' to calculating compensation in cases where land markets are weak or non-existent?	Yes
2. Does the law provide compensation for unregistered customary tenure rights held by Indigenous Peoples and local communities?	Yes
3. Does the law establish special protections for women landholders regarding compensation entitlements?	No
4. Does the law require assessors to <u>take into account</u> the loss of business and other economic activities?	Yes
5. Does the law require assessors to <u>take into account</u> the improvements (i.e., attached and unattached assets on the land (e.g., crops, buildings) made on the land?	Yes
6. Does the law require assessors to <u>take into account</u> intangible land values (e.g., cultural, social, and historical land values)?	No
7. Does the law provide affected populations with the right to opt for alternative land instead of compensation in cash?	No
8. Does the law provide affected populations with the right to negotiate the amount of compensation?	No
9. Does the law require that compensation must be paid prior to the taking of possession of the land or within a specified timeframe thereafter?	Partial
10. Are affected populations granted the right to appeal decisions on the amount of compensation in court or before a tribunal?	Yes

Resettlement and Rehabilitation Indicators (Table 10 in Tagliarino)	
1. Is there a national-level resettlement policy that is legally binding on all projects involving the expropriation of land?	No
2. Do the national laws provide displaced populations with relocation allowance?	Partial
3. Do the national laws provide displaced populations with alternative land, housing, or resettlement?	No
4. Do the national laws provide displaced populations with productive or suitable alternative land?	No
5. Do the national laws require that displaced populations be consulted during the resettlement process?	Yes
6. Do the national laws require the government or acquiring bodies to minimize or avoid involuntary resettlement?	No
7. Do the national laws require the government or acquiring bodies to provide sufficient funding to implement resettlement programs?	Partial



[Gabna sameby i Nord-Sverige \(1\).jpg \(3872x2592\)](#)

Please learn more in my paper "Twist and Tango – Mines moving cities in Arctic Sweden"

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# The most relevant SDGs related to the presentation and theme of this session



SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals



**WORKING WEEK 2025**

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**STEP 1: SELECT HERE THE THREE MOST RELEVANT SDGs**  
**STEP 2: COPY THE SDG INTO PREVIOUS SLIDE**

<b>1</b> NO POVERTY 	<b>2</b> ZERO HUNGER 	<b>3</b> GOOD HEALTH AND WELL-BEING 	<b>4</b> QUALITY EDUCATION 	<b>5</b> GENDER EQUALITY 	<b>6</b> CLEAN WATER AND SANITATION 	<b>7</b> AFFORDABLE AND CLEAN ENERGY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE 
<b>10</b> REDUCED INEQUALITIES 	<b>11</b> SUSTAINABLE CITIES AND COMMUNITIES 	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 	<b>13</b> CLIMATE ACTION 	<b>14</b> LIFE BELOW WATER 	<b>15</b> LIFE ON LAND 	<b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS 	<b>17</b> PARTNERSHIPS FOR THE GOALS 	