



ASSESSMENT AND DOCUMENTATION OF GOOD PRACTICES ON DISASTER RISK REDUCTION FOR CHILDREN'S RESILIENCE IN KAZAKHSTAN

KEY POINTS

- Over 75% of the territory of Kazakhstan is exposed to an arrange of natural hazards with floods having the major share, followed by extreme temperature events, earthquakes, landslides, storms and wild fires. Mostly exposed regions to natural hazards in Kazakhstan are East Kazakhstan, Zhambyl, Almaty, South Kazakhstan and Almaty city.
 - On an average annual basis there are 3,000 – 4,000 emergency situations resulting in about 3,000-5,000 injuries and several dozen fatalities and estimated losses of 16 billion tenge or cca. 50 million USD.
 - Nearly half of all the population in Kazakhstan are children and young below the age of 24 out of which 4.8 million children are younger than the age of 14 which is significantly increasing the vulnerability to natural and human-made disasters.
 - Since 2009 UNICEF has been supporting the Government of Kazakhstan for advancing the disaster resilience of children through at improved policies, integration of elements of disaster risk reduction into education curricula and standards, enhancing the knowledge of teachers and students through specialized trainings, improved disaster risk management in schools, as well as strengthening the disaster prevention part through better understanding of the risks and implementation of risk analysis on local level with special attentions on the needs and vulnerabilities of children.
 - UNICEF DRR programme significantly supported the strengthening of disaster resilience of children in Kazakhstan providing necessary key expertise for advancing DRR in education on the national agenda.
 - Disaster risk reduction programme was relevant, effective, sustainable, efficient, provided impact to disaster resilience of children. System-level bottleneck/barriers addressed: enabling environment and supply, with emerging focus on quality. However, challenges still existing (e.g. demand area).
 - UNICEF programme matured over the years, from better preparedness of children, through basic disaster risk reduction trainings and planning, to a complex programme where more comprehensive and inclusive risk and hazard assessment have been implemented.
 - UNICEF concept of child centered disaster risk reduction becomes a defining rationale and modus operandi for proactive disaster resilience of children with emphasis on prevention, mitigation and preparedness to natural and human-made disasters.



- Particular system challenges to disaster resilience of children were understood and a programme in line with national priorities and strategies tailored.

BACKGROUND

On a global scale, natural and human-made disasters are happening more frequently with stronger intensity resulting in increased casualties, damages and losses, while heaviest consequences are borne by the most vulnerable categories of citizens. Children are considered to be most vulnerable amongst all vulnerable to disasters as more than 50% of the affected populations by disasters globally are children.

Kazakhstan is not an exception from this since more than 75% of its territory is exposed to an arrange of natural hazards with floods having the major share, followed by extreme temperature events, earthquakes, landslides, storms and wild fires. In addition, on an annual basis there are 3,000 – 4,000 emergency situations resulting in about 3,000-5,000 injuries and several dozen fatalities and estimated losses of 16 billion tenge or cca. 50 million USD. Vulnerability to natural and human-made disasters in the case of Kazakhstan is additionally increased since approx. 40% of the population is younger than the age of 24 with almost 4.8 million populations from the 0 – 14 ages.

Since 2009 UNICEF has been supporting the Government of Kazakhstan for advancing the disaster resilience of children through at improved policies, integration of elements of disaster risk reduction into education curricula and standards, enhancing the knowledge of teachers and students through specialized trainings, improved disaster risk management in schools, as well as strengthening the disaster prevention part through better understanding of the risks and implementation of risk analysis on local level with special attentions on the needs and vulnerabilities of children. Accordingly, during the period 2009 – 2017 3,700 teachers and 70,000 students improved their knowledge and skills in safe behavior before, during and after disasters. In addition, two schools were selected as resource for disaster risk reduction (the city school - Astana No. 63 and a rural school in the village of Zubovsk in the Zyryanovsk district of the East Kazakhstan region). Furthermore, a methodology for disaster risk analysis at the local level, with special attention to the needs and vulnerabilities of children was developed as an innovative tool for strengthening the resilience of children. The analysis evaluated probability and impact of disasters, including climate related and the capacity of local level territorial entities to cope with the related situations.

OBJECTIVE, SCOPE, METHODOLOGY

The general objective of the assignment was to assess overall effectiveness, relevance and sustainability of the disaster risk reduction programme in the best interest of children in Kazakhstan, document country's good practices for further sharing, as well as based on Monitoring of Results for Equity Systems (MORES) determinant framework to assess the main components of programme development, identify main barriers, bottlenecks and draw up recommendations to address them. Furthermore, contribution of the UNICEF disaster resilience of children programme towards the Sendai Framework on Disaster Risk Reduction for 2015-2030, Worldwide Initiative for Safe Schools, Sustainable Development Goals, as well as to the national agenda (State Education Development Programme for 2011-2020, National Action Plan for development of the functional literacy of schoolchildren in 2012-2016, Strategic Plan of the Ministry of Education and Science of the Republic



of Kazakhstan for the period 2014 – 2018, and Inter-sectorial action plan on ensuring safety of schoolchildren for 2015-2016) was reviewed and assessed.

KEY ASSESSMENT FINDINGS

Relevance

UNICEF’s concept of child centered disaster risk reduction has become a defining rationale for strengthening the disaster resilience of children in Kazakhstan. It is considered as a *modus operandi* for shifting the focus from response to prevention and preparedness, contributing to establishment of a pro-active disaster risk reduction system in the country. UNICEF’s programme was in accordance with the global and the national disaster risk management frameworks and has significantly contributed to alignment of Kazakhstan to global obligations regarding the Sendai Framework for Disaster Risk Reduction, Sustainable Development Goals and World initiative on Safe Schools. At the center of its programme interventions, always were the needs and priorities of the beneficiaries, being the emergency management and educational institutions or children and their parents. UNICEF in its interventions especially targeted the children from pre-school and general education schools as most vulnerable building their disaster resilience. Beneficiaries were actively involved in programme design and implementation phases.

“Either you are advancing in disaster risk reduction or you are lagging behind being exposed and vulnerable to natural hazards”.

Source: Key informant, government representative

Effectiveness/System Level Changes

Enabling Environment	
Social norms	<ul style="list-style-type: none"> • Attitude of policy makers, professionals, public • Slow to change + legacy from past times • Bottlenecks/barriers (insufficient awareness & knowledge) • Emergency management ≠ Disaster risk reduction
Legislative and policy aspects	<ul style="list-style-type: none"> • Period of assessment very dynamic with several acts, strategies, plans adopted • Disaster Risk Reduction is not mainstreamed everywhere and sufficiently
Budget allocations and financial flows	<ul style="list-style-type: none"> • Not sustainable funding of disaster risk in education and for disaster resilience as a whole • 2% contingency budget, mainly for emergency response, liquidation of consequences, litigation
Management and coordination	<ul style="list-style-type: none"> • Formal structure for disaster risk reduction in education established and functional, both on national & local levels • Included in the programme design & implementation • Challenges remain for joint policy development, planning, resources allocation, monitoring
Supply	
Adequate resources, specialized knowledge and customized service	
<ul style="list-style-type: none"> • Lack of specialized knowledge & empowered resources to combine disaster risk reduction and education 	



<ul style="list-style-type: none">• Increased number of enrolled students vs. not adequate services
Quality
<ul style="list-style-type: none">• No mainstreamed system in provision of monitoring and evaluation of quality of provided services
Demand
<ul style="list-style-type: none">• There is a need and demand for programmes for disaster resilience of children• Influence of social and cultural practices and beliefs• Bottlenecks: paternalism and dependency, human behavior, no multi-sector approach, lack of disaster risk reduction in education

UNICEF Contributions to changes in the system

1. Policy advice and technical assistance

- 3,700 teachers and 70,000 students from Almaty, Almaty City, Southern Kazakhstan, Eastern Kazakhstan, Western Kazakhstan, Kyzylorda, Mangistau and Astana improved their knowledge and skills in safe behavior before, during and after disasters;
- Empowered human resource main investment in disaster resilience;
- Strategic support on central level, practical on local level;

2. Modelling and piloting

- Interventions shifted focus from stand-alone activities to strategic contributions; from preparedness to prevention and resilience;
- Meaningful practices promoted: integration in curricula, nationwide trainings, disaster risk reduction empowerment of youth, new approaches to resilience including participatory disaster risk assessment on local level;

3. Leveraging resources

- Strong partnerships;
- Core and donor funding of interventions;
- Financial resources for disaster resilience of children still limited;

4. Voice of children

- UNICEF was strong advocate for disaster resilience of children;
- Children voices were heard through bringing them on board of disaster risk reduction activities, national youth consultations, inclusive risk assessment, public awareness, participation in the national level conferences to share the experience;

5. Children rights monitoring, evaluation and knowledge sharing

- Disaster risk reduction integration and children empowerment;
- Data collection, inclusive methodologies for disaster risk assessment, improved knowledge, sharing of best practices;
- Challenges: proper monitoring system and collection and analysis of disaggregated data on children resilience;

6. National Dialogue

- Advocacy and promotion activities: roundtables, conferences, publication launches, trainings and workshops;



- Interlinkages with other programmes established e.g. Children Friendly Cities (CFC), Youth;
- Children with disabilities still not included, except for one school in Eastern Kazakhstan.

“UNICEF was active in pushing the disaster resilience of children higher on the national agenda in a systematic approach making people aware that learning about DRR is important not only for them but also for their communities and the society in general”.

Source: Key informant, government representative

Sustainability

UNICEF DRR programme achieved great level of sustainability of system level changes resulting in mainstreaming of disaster risk reduction in education impacting lives of children. There was strong national ownership of the programme and was reflected through firm commitment for disaster resilience for children through advocacy, normative regulation and programme implementation, as well as aligning with key global contemporary disaster risk management framework. Overall, there are reasonable chances that the project results will be sustained especially in part of the mandatory activities related to the educational curricula and standards. There are concerns around the sustainability of the programme in terms of durability and upscaling of interventions by national stakeholders considering the limited financial resources from the regular budget sources, as well as, sustainability of utilization of models that were innovated and piloted in the programme (e.g. DRA on local level methodology).

Impact

UNICEF DRR programme directly impacted the resilience of the beneficiaries through education, i.e. children with increased knowledge and awareness, as well as teachers and professionals being empowered for disaster risk prevention and reduction knowledge sharing. Accordingly, more than 3,700 teachers and 70,000 students are empowered and resilient to natural and human-made disasters through improvement of their knowledge and skills in safe behavior, during and after disasters. Furthermore, the programme contributed to strengthening of the disaster risk management system through system level changes and consisted of disaster risk reduction mainstreaming in education through influencing the policy making at different levels, modeling and prototyping practical interventions, development and testing new solutions for resilience.

Efficiency

For the whole period of assessment UNICEF has been efficient in implementation of its core roles, combining it well for pushing forward the disaster risk reduction in education agenda. It was considered as a key partner for provision of policy and technical advisory on disaster resilience of children. Provision of technical advisory and support was complementary with strengthening the capacities of the beneficiaries. Management and operation was implemented as per the corporate regulations and relevant national context. There are positive examples of efficient integrated programme approach to overall resilience building of children including disaster risk reduction component. Established resource schools become incubators of resilient disaster risk reduction practices and knowledge sharing.

POLICY IMPLEMENTATION AND EXAMPLES FROM THE FIELD



- *Integration of the disaster risk reduction in the education curriculum*
- *Pedagogy of disaster risk reduction (methodological guidelines for teachers)*
- *Nationwide education and training of more than 3,700 teachers and 70,000 students on disaster resilience aspects*
- *Establishment of pilot schools in several regions/cities and resources schools (School No.63 in Astana and Zubovsk School in Zyryanovsk District)*
- *Inclusive risk assessments of pilot schools facilities done with participation of students and schools' disaster risk reduction plans developed*
- *Utilizing youth for resilience (peer-to-peer education, national youth consultations)*
- *Participatory public awareness raising (One minute videos)*
- *Methodology for Disaster Risk Analysis at the Local Level with special attention on the needs and vulnerabilities of children implemented in East Kazakhstan, Mangistau and Kyzylorda*
 - *Seismic risk safety assessments of 38 schools in Astana, Almaty, Aktau, Ust Kamenogorsk and Kyzylorda.*

LESSONS LEARNT ON DISASTER RESILIENCE OF CHILDREN

1. **UNICEF DRR programme is *modus operandi* for shifting the approach from reactive to proactive disaster risk management.** It has supported the efforts for mainstreaming of disaster risk reduction in education ensuring that investment in resilience is always cheaper than waiting disasters to happen and paying for elimination of consequences and long-term recovery. The Government and relevant national and local authorities have to continue the disaster risk reduction mainstreaming in education in order to capitalize the results of the programme and achieve full integration.

2. **Alignment to global contemporary disaster risk management framework to which Kazakhstan is a Party, partially was achieved through implementation of the UNICEF programme for disaster resilience of children.** Implementation of this kind of programmes is supporting the practical alignment of the country to its international responsibilities and is enabling its prominence in disaster resilience of children through regional and global sharing of best practices.

3. **Capacity building initiatives are crucial in the effort to establish sound foundation for disaster resilience of children.** Activities for disaster risk reduction integration in the education curricula and empowerment of the teachers and professionals are the main pillars of it, followed by practical trainings with children.

4. **School children are most valuable agents of change and investment in their disaster risk reduction awareness and knowledge results in sustainable and fast dissemination of that knowledge to their families and environment.** They are most vulnerable category, but also serve as key disseminators of messages for disaster resilience. Their inclusion in core activities of the programme both as learners and providers of knowledge ensures their voices to be heard, as well as sustainability of the programme and durable disaster resilience of communities.

5. **Resource schools are excellent example of disaster risk reduction in education resources and knowledge incubation on local level.**

6. **Participatory disaster risk assessments on local level proofed to significantly strengthen the risk and hazard assessment process and contributed to increased resilience of children.** It is an



effective tool for risk analysis providing valuable inputs for inclusive disaster risk planning and operationalization of the plans taking into consideration the benefit and best interests of children.

KEY RECOMMENDATIONS

Recommendation 1: Ensuring continuum of disaster resilience of children in Kazakhstan

UNICEF disaster resilience for children programme succeeded in incorporating essentials of disaster risk reduction in the education curricula establishing education standards and materials, as well as empowering teachers, professionals and pre-school and school children for disaster resilience. Therefore it is needed to ensure continuum of sustainable provision of disaster risk reduction in education, as well as designing new services for educations for resilience. Disaster risk reduction aspects should be fully integrated in relevant national legislative frameworks, as well as strategic, programming and planning documents, relying on Sendai Framework for disaster risk reduction, World Initiative on Safe Schools and Sustainable Development Goals, acknowledging resilience and promoting children and youth as agents of change and knowledge champions. These efforts should be prioritized and implemented by the Government and key stakeholders using the momentum and capitalizing the results achieved.

Recommendation 2: Contextualization of the national disaster risk reduction in education framework

In-depth review of the alignment of the national disaster risk reduction in education framework to the Sendai Framework for Disaster Risk Reduction and Sustainable Development Goals based on the agreed indicators is recommended. This will help the national efforts for attainment to these frameworks, fulfillment of international responsibilities of Kazakhstan, as well as foundations for proper monitoring of the progress of achievement of the main objectives of the disaster resilience of children framework.

Recommendation 3: Securing sustainable resources for disaster resilience of children in Kazakhstan

Empowered human resources i.e. educated and trained teacher, professionals and children are greatest achievements of the programme, as well as most valuable investment in overall disaster resilience of Kazakhstan. Therefore it is necessary not only to implement various measures to retain the well-educated resources, but also to continue further investment in education and training of new ones securing sustainable resources for disaster resilience of children. This will decrease the cost of disaster risk reduction and will establish a “perpetual motion” for resilience for the system to continuously invest in resources and at best to use their capacities and knowledge Furthermore, it is necessary to establish a continued and sustainable financing mechanism for funding the activities for disaster resilience of children, both on national and local levels. UNICEF is seen as a valuable partner not only in providing advice and assistance, but also providing incentives through seed funding.

Recommendation 4: Strengthening multi-sector approach to disaster resilience of children

Foundations of contemporary, sustainable and efficient disaster risk management is in the multi-risk, multi-hazard and multi-sector approach. In that sense it is necessary to continue and scale up the cooperation and coordination through cross-sectoral regulation and programming both at the policy



and practices levels. UNICEF should further contribute to these processes wherever possible, through functional reviews, policy advisory, technical assistance or normative regulations.

Recommendation 5: From modeling and piloting to scaling interventions

UNICEF has successfully invested in modeling and piloting various disaster risk reduction interventions resulting in more versified and efficient modalities for disaster resilience of children with their increased knowledge and competences. This laid down foundation for transforming this small scale piloting to more sustainable modelling through integration within the existing national disaster risk reduction in education framework and greater ownership by the key national stakeholders. Accordingly, scaling up modalities have to be conceptualized to acknowledge achieved best practices and fully integrated within the working portfolios of key stakeholders.

Recommendation 6: Establishing new partnership for leveraging the change

UNICEF succeeded in leveraging the resources for disaster resilience of children in Kazakhstan from variety of sources, both financial and human. Achieved results in DRR programme, workable solutions for resilience, as well as successful piloting is the opportunity to leverage the partnership with the private sector on the ground of provision of financial support to practical intervention, as well as utilization of specific private sector expertise.

Recommendation 7: Innovating for disaster resilience

UNICEF disaster resilience of children programme interventions incorporated positive innovative aspects. However, it is recommended to enter the territory of ICT innovation for disaster resilience of children in a more systematized way with utilization of existing and new solutions with national contexts e.g. adaptive improvement of the training and learning materials and educational tools, innovative design of solutions, adaptation of the education resources for children with disabilities (e.g. visual or hearing impairment, intellectual disability, etc.).

Recommendation 8: Improved baseline data and evidence-based policies

It is recommended to further analyze the situation of disaster resilience of children in Kazakhstan in more disaggregated manner, through improved baseline data, identification of relevant indicators, efficient and timely data collection, and integrated analysis. Therefore set of harmonized indicators should be developed jointly with national counterparts, as well as to establish functional and interconnected monitoring system. These activities can rely on the positive experience from the Children Friendly City initiative where indicators for data collection and monitoring were designed for several areas (e.g. safety, resilience, disaster risk reduction).

CONCLUSIONS

UNICEF DRR programme significantly supported the strengthening of disaster resilience of children in Kazakhstan and ensured DRR mainstreaming in education within the framework of its competences. Through its programme interventions implemented during a decade, it has provided a



key expertise for advancing disaster risk reduction in education on the national agenda and supported the country to achieve objectives and to attain goals from the global contemporary DRM framework.

In terms of the criteria, it can be assessed that it was relevant, effective, sustainable and efficient. System-level bottlenecks have been addressed in a number of areas at national and regional levels, most significantly in the areas of enabling environment and supply, with an emerging focus on the quality. UNICEF contributions to system level changes have been significant, having in mind the limited financial resources over the period of assessment. Changes that happened in the determinant areas, and the overall system, mainly were triggered by UNICEF's advocacy and know-how, and multiplied with existing national expertise and knowledge. However, there are still remaining challenges to the disaster resilience of children that require additional support.

UNICEF DRR programme matured over the years of implementation, deriving from response to the essential needs for better preparedness of children, through basic disaster risk reduction trainings and planning, to a complex programme where more comprehensive and inclusive risk and hazard assessment have been implemented significantly contributing to disaster resilience of children. Within this development UNICEF succeeded in modeling and piloting innovative approaches being resource schools cases, peer-to-peer education, and parental participation in disaster resilience building, DRA on local level with needs and vulnerabilities of children or integration with other programme initiatives. However, for future programming further focus on the on vulnerable categories of children is recommended e.g. children with disabilities, streamlined collection and analysis of disaggregated data for resilience, as well as steady commitment by the stakeholders to integrate the disaster risk analysis tools for the need and vulnerability of children within their risk and hazard assessments frameworks.

UNICEF cooperation and programme framework is generally aligned with the global contemporary and national disaster risk management frameworks and the programme significantly contributed to the practical attainment of Kazakhstan to global DRM frameworks. On the other side, within the national framework, disaster risk reduction is still not fully operationally mainstreamed in the educational sector regulations, strategies and programmes. Therefore it is necessary to capitalize the benefits from the programme and to continue efforts for its full integration, both on normative and practical levels. Within this process of mainstreaming it is necessary to emphasize the building the culture of resilience through focus on the prevention aspects of disaster risk reduction rather than the preparedness and response areas, as well as to consider the children and youth as agents for resilient changes.