

## Appendix B-3b: Overview over types of applied project outcomes in the Megacities funding initiative

Project	Approach/ Topic	Outcomes for individuals / households	Outcomes for public administration and policy making	Outcomes for larger public	Capacity Development (CD)	Transformation knowledge; transferability
Megacities project Casablanca, Morocco	Urban agriculture		Action plan for integrating urban agriculture into the urban development process; Weather/ climate models for DS*	Design solutions for multifunctional space systems; Experimental plants for industrial wastewater treatment / re-use; Concepts for peri-urban tourism; Approaches for healthy food production; Urban agriculture in informal settlements	Awareness-raising and dissemination strategy, <sup>2</sup>	Reflections about td-methods*; action research; systemic change, <sup>3</sup>
Megacities project Addis Ababa, Ethiopia	Solid waste management, poverty reduction, improved sanitation	Business options for paper-recycling; Market studies and business guidelines	Model-based strategic planning for sustainable solid waste management; Adapted occupational safety and health standards / solutions	Pilot projects for separate collection at source, biogas facility, charcoal briquettes from organic wastes, composting, school biogas-latrine; Closing material cycles by using biogas sludge for erosion-prevention, energy crop production	CD in science, city; administration, among people working in pilot projects, <sup>2</sup>	Obstacle-based transfer analysis methodology for technologies or methods, <sup>3</sup>

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Megacities project Hefei, China	Trans- portation management		Traffic management system; Traffic assessment model for DS; Guidelines for traffic management, trans- port planning and urban block design; Finance options for sustainable transport; Strategic design proposal for pedestrian-friendly cities		CD in urban / transport planning, <sup>2</sup>	<sup>3</sup>
Megacities project Urumqi, China	Resource efficiency in building/ housing	Construction of the first passive house in western China; Low-energy renovation of buildings	Waste management software; Hydrological modelling; Advice on efficient water use / water information management for DS		CD for a soil moisture-based measurement methodology, <sup>2</sup>	<sup>3</sup>
Megacities project Teh- ran-Karaj, Iran	Energy efficient new town development	'New quality building' w/ 16 housing units; Conceptual designs for energy-ef- ficient residential/ commercial buildings	Master plan for a 35 ha. pilot area Manuals for climate-responsive / sustainable urban development; integrated urban planning in semi-arid / arid regions; Concepts for public transport; Wastewater ecological assess- ment model	Implementation of environmental compensation areas	Vocational education and training for construction workers, <sup>2</sup>	<sup>3</sup>
Megacities project Lima, Peru	Water manage- ment		Simulations / macro-modelling of water availability for DS; Governance solutions for the water sector; Water-pricing / tariff options; Integrated urban planning strategies	Ecological park; Experimental treatment plant pilot project	E-learning academy, CD for use of technology, <sup>2</sup>	Participatory methods, de- cision support tools, <sup>3</sup>

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Megacities project Ho Chi Minh-City, Vietnam	Adaptation planning		Urban climate map for DS; Urban water balance modelling / planning recommendations; Handbook for land-use planning; Adaptation strategies for HCMC to climate change; Handbooks for urban design; community-based adaptation	Handbook green buildings (targeting middle class)	2	3
Megacities project Hyderabad, India	Governance for sustainability	Cooperative / technical solutions for energy efficiency in irrigation	Climate assessment tool; Strategic transport planning tool	Collective action for fuel transition among the urban poor; Street food-safety manual to strengthen a climate- friendly urban food-supply system; Solar powered schools; Community radio	CD among all stakeholders, for sustainable lifestyles, on-site training street food, <sup>2</sup>	3
Megacities project Gauteng / Johannesburg, South Africa	Energy and climate protection		Implementation of energy office; Energy / emission model for assessing energy performance of buildings; Establishment of long-term perspective working group on governance; Transport emission inventory for mobility planning; Energy technology handbook; CDM emission trade evaluation tool; Energy / cost-efficient settlements for the poor / holistic housing approach	Installation of solar panels in schools	CD in schools, training and CD on outcomes, <sup>2</sup>	3

Source: own elaboration based on Ehlers et al. 2010; Koch-Kraft et al. 2013; BMBF 2013g and interviews with project participants –<sup>\*</sup> DS: decision support, td: transdisciplinarity –<sup>2</sup> The Megacities accompanying project identified energy, mobility, governance, resources, planning and capacities as crosscutting issues of the research projects. –<sup>3</sup> Capacity development on the scientific level was part of all Megacities projects; funded through an accompanying PhD scholarship programme