# A Growing Pie of Water - The New Water Paradigm

**Slovakia**  
Michal Kravcik

## Project Summary

### Elevator Pitch

**Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.**

Keep rainwater on land! More rainwater on land means more evaporation, clouds and rain, moderates regional warming and provides water for everybody.

## About You

### Location

- **Project Street Address**
- **Project City**
- **Project Province/State**
- **Project Postal/Zip Code**
- **Project Country**

## Your idea

### Field of Work

Water

### Year the initiative began (yyyy)

1994

### YouTube Upload

Web site (url)

http://www.waterparadigm.org

### Positioning of your initiative on the mosaic diagram:

- Which of these barriers is the primary focus of your work?
  - Limited focus on long-term impact

- Which of the principles is the primary focus of your work?
  - Increase accountability through design for the long-term

- If you believe some other barrier or principle should be included in the mosaic, please describe it and how it would affect the positioning of your initiative in the mosaic

Plentiful water is precondition for development of a good and sustainable sanitation.

## Innovation

### What is your signature innovation, your new idea, in one sentence?

Keep rainwater on land! More rainwater on land means more evaporation, clouds and rain, moderates regional warming and provides water for everybody.

### Describe your innovation. What makes your idea unique and different than others doing work in the field?

The central theme of the new water paradigm (NWP) is recovery of the water balance at all levels on the territory. The distortion of water cycle by human draining of the land can be fixed by returning water back by comprehensive program of rainwater harvesting (RWH). RWH was practiced always to acquire more water. However, if provided on massive scale along with infiltration and evaporation, it helps also to renew a small water cycle (short-distance circulation of water with dominant vertical dimension), cools the country, moderates draughts, floods and fires and increases biodiversity. Evaporation isn’t lost of water, it keeps small water cycle running (like in rainforest). If evaporation is diminished, immense flows of solar energy are changed into sensible heat instead of latent heat of phase change. The climatic umbrella above “hot plates” pushes clouds away to colder areas. In order to prevent decline of rainfall (and rise of weather extremes), it is crucial - against all instincts - to secure evaporation also.

### Delivery Model: How do you implement your innovation and apply it to the challenge/problem you are addressing?

Our NGO „People and Water“ initiated several projects during its existence. The „Water Forest“ project in 2005-2007 applied measures on vast area ravaged by natural disaster. Nowadays we cooperate with a city Presov (100.000 inhabitants) on a NWP project with 3 levels: 1/ „Cool City“ –
In most cases we finance our projects from funds we compete for with other subjects in Slovakia or Europe.

**How do you expand your innovation?**

Implementation of the project shall create basis for expansion worldwide. We try to drag attention of researchers to record changes in water sources and ecosystems. We cultivate our relation with several important organizations on national level, like Association of Towns and Municipalities in Slovakia, government ministries, business companies and banks. We did first steps together with these players to start a Competence Centre focused on implementation of NWP. We plan to expand education about “new culture of water” to young people in “universities of water” mentioned above and gradually to spread it to schools on all levels. We plan to publish leaflets, manuals, reading books, etc. We cultivate our relations on international level also – with the like minded groups and professionals dealing especially with holistic landscape management and integrated water resources management, as well as on political level in European Parliament and Commission. We plan to translate our “manifesto” to other languages (besides English and Slovak).

**How is your initiative financed (or how do you expect your initiative will be financed)?**

Our NGO has an informal but good partnership with the Association of Towns and Municipalities in Slovakia (member organization for 96% of municipalities in Slovakia), which adopted our principles to its water-related program documents, co-operated with us on creation and promotion of the NWP publication. We have formal and informal partnerships with some concrete cities and villages. Partnership with the city Presov includes our co-operation on “water pillar” of the city’s ambitious project to compete for the title “European Capital of Culture” and organizing annual international conferences on NWP with us. Partnerships are usually created on basis of mutual consensus build up in public participation processes with like-minded experts and with people in senior positions.

**Do you have any existing partnerships, and if so, how do you create them?**

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**How many people have you served or plan to serve?**

The UN’s predictions for the climate in the 21st century are very worrying: “…warming will produce vast changes in evaporation and precipitation, allied to a more unpredictable hydrological cycle… accompanied by new rainfall patterns and more extreme weather events, including floods and droughts” /Human Development Report 2006/. In the unpredictable world, one thing predictable is a growth in the number of countries with water shortages and water-related disasters. We plan to serve to those countries.

**Directly**

So far, we have served only several tens of people by the application of NWP directly – we helped to increase their water sources or protected them against torrential rains. NWP is a complex system. The main effects of the innovation show only when it is applied on massive scale. That is why we see our mission rather in persuading people to apply our ideas than to apply them for them and instead of them.

**Indirectly**

Indirectly we have served several thousands of people. We saved few villages standing on a place where obsolete dam was planned and we showed our alternative. We advised to several villages notoriously threatened by floods. We applied our ideas in a part of popular National Park destroyed by natural disaster to assist its recovery and so we assisted visitors also.

**Provide one sentence describing your impact/intended impact.**

We would like to change urban, agricultural and forestry paradigm of land management so, that water balance shall be preserved.

**What are the main barriers to creating or achieving your impact?**

The change of paradigm from “rainwater is a nuisance” to “rainwater is an asset” is a barrier, as well as the absence of integrated approach to water management.

**Please list any other measures of the impact of your innovation?**

Mr. Michal Kravcik was awarded by the Economic Club – Informal Economic Forum (in Slovakia) with the “Golden Biatec” Prize in February 2008 for the publication “Water for the Recovery of Climate – A New Water Paradigm”. Economic Club released a declaration supporting ideas of NWP at that occasion. Last but not least, Mr. Kravcik became Ashoka Fellow and was awarded with prestigious Goldman Environmental Prize in 1999 for the “Blue Alternative” closely related to the ideas of NWP.

**Is there a policy intervention element to your innovation, if so please describe?**

A nice thing about RWH is that with a good will it can be done from individual level (roof and yard of every house is a microwatershed) to communitarian and national levels without political intervention. Appliances for storing or infiltrating rainwater are already produced on commercial basis and become financially accessible. Policy intervention clashes of old and new water policies occur – like state investments to concrete versus green infrastructure. That is why it would be nice to have moral, financial and legislative support of political bodies – as RWH looks to have e.g. on Sri Lanka.

**Exactly who are the beneficiaries of your innovation?**

Beneficiaries are those who experience negative consequences of climate and water balance changes caused by distortion of water cycle due to human draining of land. Poor people of the third world would benefit more than others, because their economy is predominantly based on farming, which is very vulnerable to water scarcity and climate extremes. Example: See a project (in an advanced stage of planning) designed for African countries by British scientist A.R.Taylor (he gives credit for the idea to us - [www.theglobalcoolingproject.com](http://www.theglobalcoolingproject.com)).

**Sustainability**

**How is your initiative financed (or how do you expect your initiative will be financed)?**

In most cases we finance our projects from funds we compete for with other subjects in Slovakia or Europe. In 2005-2006 we have received 10
Our revenues were 9.48 million Sk (474 000 USD) in 2007, 12.2 million Sk and 0.83 million Sk in 2005 and 2006 respectively. Major part was always formed by contribution from other organizations – see previous paragraph. We earned 2 million Sk (100 000 USD) mainly from municipalities for services we provided, especially for counseling and assistance. In 2005 and 2006 it was 0.53 million Sk and 0.35 million Sk respectively. We earn minor sums from membership fees, tax donations and sponsors. Our costs were 9.17 million Sk (458 000 USD) in 2007, 2.43 million Sk and 1.65 million Sk in 2005 and 2006 respectively. Most costs were spent on payments to other organizations we rented to do particular works on our projects – 5.3 million Sk last year, 1.8 million Sk and 1.1 million Sk in 2005 and 2006 respectively. Purchase of material was another important cost last year (2.7 million Sk, which approx. responds to 135 000 USD), then wages (825 000 Sk), repair/maintenance (100 000 Sk), energy (68 000 Sk), travel costs (44 000 Sk) and some other minor costs.

Our priority in 2008 is realization of “People’s University of Water” project, finances for which were already assigned to us from European Social Fund. We (together with some municipalities) applied to Environmental Fund and to Norwegian Financial Mechanism for financing some other projects of integrated management of water sources (total approx. 250 million Sk, i.e. approx. 12.5 million USD) in 2008-2011, though results of selection are not known yet.

Besides above mentioned activities we intend to continue in earning income (about 1-2 million Sk, i.e. 50-100 thousand USD), especially for studies of integrated management of water sources and anti-flood counseling. We are negotiating with several potential partners. Most of them, however, need to acquire money through funds via projects.

Number of staff:
full-time 7
part-time 8
volunteers 20

What is the potential demand for your innovation?

Hardly anybody claims to have a good solution to water crisis. However, NWP represents such a solution in terms of time, money and effectiveness. Usually, massive investments are not required. Local materials and labor force are utilized. We estimate costs of NWP implementation on national scale worth roughly 0.1% of a country’s annual GDP multiplied by the number of years (approx. 10-15 years for Slovakia) needed for implementation. That is why we expect great interest and demand worldwide.

What are the main barriers to financial sustainability?
The NWP idea is sustainable as examples show. The barrier to application on municipal and national level is that it was published in more compact form only recently. It is not broadly known. On the other hand, it is resisted by established practice and various prejudices. Initial investments are needed for pilot projects. That is why the more massive application, which should show even more effects, didn’t take place yet (but it is gradually coming).

The Story

What is the origin of this innovation? Tell us your story.

In 1992 the government of Slovakia revived an old communist plan to build a large dam at Tichy Potok on Torysa River to supply drinking water for East Slovakia’s cities. The dam would have destroyed environment and four villages. Dissident hydrologist Michal Kravcik established a local grassroots NGO People and Water in response. He showed that much water was being wasted. He proposed the “Blue Alternative” plan enabling to get the same amount of water for approx. 20% of the cost of the dam, while protecting environment and villages. After unethical attacks started, People and Water organized camps. A number of catch basins were constructed and media were invited to view results. Bitter government cancelled plans for the dam. Kravcik and NGO developed program involving 24 villages. He worked on principles of sustainable water management for the country published as “Water for the Third Millennium” (2000). Publication was not accepted by technocrats because trends it was dealing with were not visible yet. However, growth of climate extremes in following years made people more receptive and publication received broader recognition. Along practical work in terrain, Kravcik, Ashoka Fellow himself, inspired other two Ashoka Fellows and wrote a pioneering “Water for the Recovery of the Climate – A New Water Paradigm” released in September 2007. Publication articulates essence of experience collected during 13 years and is upgraded with crucial contribution of Czech scholar friend Jan Pokorny, expert on relation between water and energy flows. Its Odyssey just begins.

Please provide a personal bio. Note this may be used in Changemakers marketing material

Michal Kravcik, (1956) completed his studies in Water Management at the Slovak Technical University and worked for the Institute of Hydrology and Hydraulics and the Institute of Ecology of the Slovak Academy of Sciences. He is a holder of the Goldman Environmental Prize and other national and international awards, as well as an Ashoka fellow. He is the founder and the most prominent representative of the People and Water NGO, which has been awarded the EU-USA Prize for Democracy and Civil Society Development.

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