ADVANCES TOWARDS TRANSBOUNDARY WATER MANAGEMENT IN THE PRESPA PARK

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Trilateral Prespa Basin

- Area of 2,519 km^2 shared by Albania, Greece and the FYR of Macedonia
- Two lakes, Micro (~850m) and Macro Prespa (~840m) and the surrounding forested mountain slopes (over 2,000m)
- Great biodiversity, natural beauty important cultural values, Ottoman monuments, traditional architecture, methods and practices

- **2 February 2000**: Declaration of the three Prime Ministers (Albania, Greece, FYR of Macedonia) “on the creation of the **Prespa Park** and the environmental protection and sustainable development of the Prespa Lakes and their surroundings”.**The first transboundary protected area in the Balkans**

2001-2002 **A Strategic Action Plan (SAP)** was prepared for the Sustainable Development of the Prespa Park

2004 It was endorsed by the Prespa Park Coordination Committee

First objective : *The conservation of ecological values and functions and of the biological diversity in the Prespa Park area.*

Policy principles concerning waters

- Promotion of the concept of unity of the Prespa catchment
- Wise water management in the basin
- Promotion of measures to resolve the Devoll problem
- Mitigation of the special pollution problems the Macro Prespa Lake is faced with
- Sustainable utilisation of natural resources in and around the Prespa Lakes
- Adoption of a joint monitoring system

All relative implemented measures should secure :

- **the fluctuation of the water level of the lakes will stay within a desired amplitude, so as to serve the conservation of the values depending on water level**
- the meeting of drinking water and irrigation needs in each country
- the prevention of pollution from point sources and the minimisation of pollution from non-point sources
- the preservation of acceptable water quality levels for the various agreed uses
- the monitoring of quantitative and qualitative parameters of the waters

Suggested Activities in *all three countries*

A hydrogeological study for the whole catchment basin

aiming at:

- the mitigation of the problems such as: the siltation of Micro Prespa, the pollution of Macro Prespa and decrease of its water level
- the establishment of a reliable, on line and open to public, monitoring system run by an appropriate management body
- the development of a Basin Water Management Plan coordinated between the three countries.

Progress made in all three countries

The much-needed hydrogeological study for the whole catchment has not been carried out due to its excessively high cost.

- A KfW-funded preliminary hydrological study in 2004-2005 has contributed to increased knowledge
- A study of the complex hydrogeology of the region has been going on for the past few years by a team of scientists from the three countries. Research was in the past funded by the IAEA and currently by NATO.
- The main problems which this study was to be aimed at according to the SAP, namely siltation of Micro Prespa, pollution of Macro Prespa and decrease of its water level are being partly addressed by other actions

Progress made in all three countries

A transboundary monitoring system is currently being set up in the Prespa Park area (2007-2011)

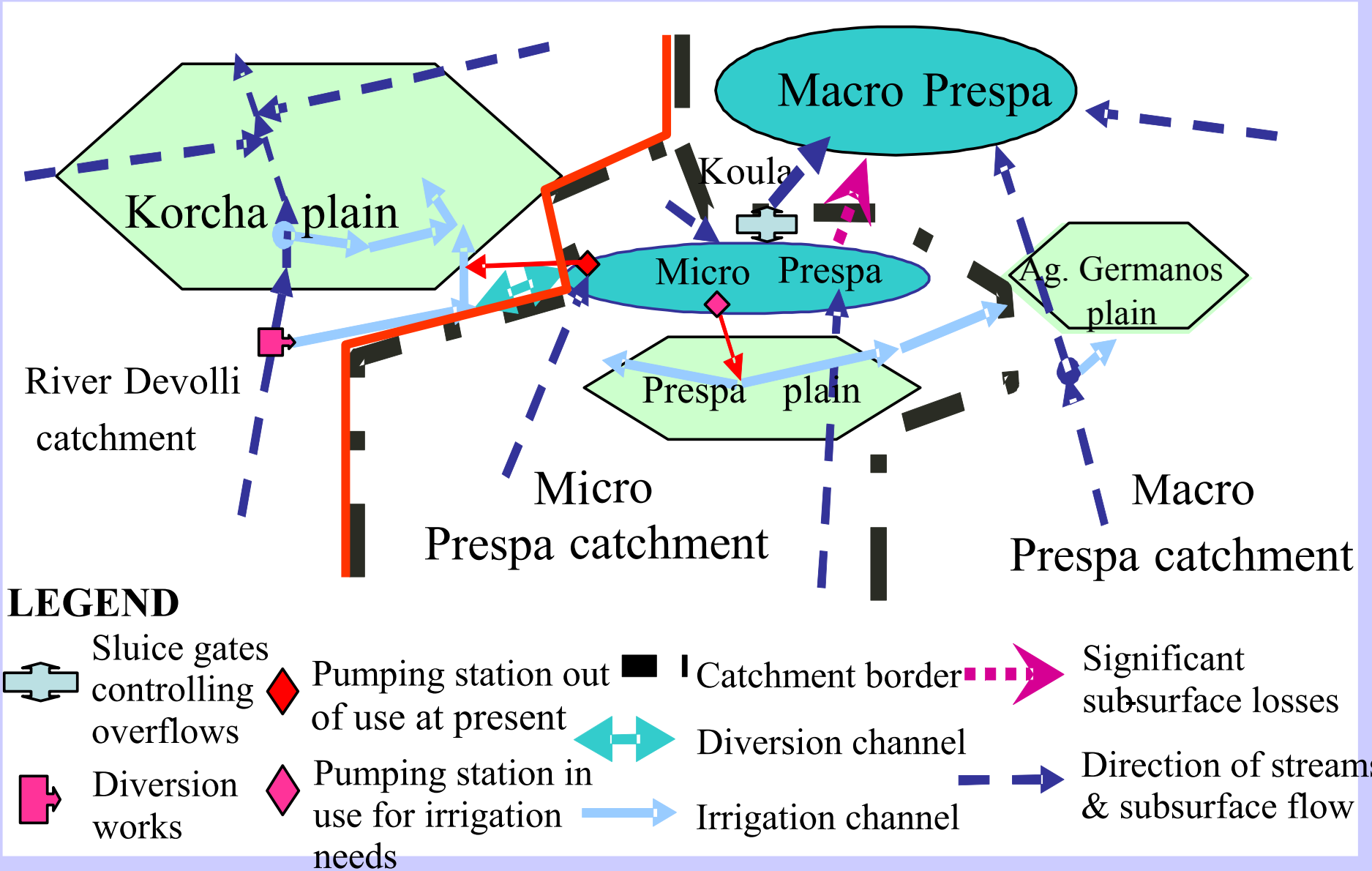
- The system is being designed by a team of international and national experts led by the Institute Tour-du-Valat (France)

Suggested Activities in *Albania*

a) Limitation of diversion of Devoll river flow in Micro Prespa and Direct abstractions for irrigation of the Korcha plain. Estimation of its impact to the water balance of Micro Prespa

b) Promotion of reforestation activities in both lakes to restore critical micro-watersheds and springs.

The Upper Prespa Hydrosystem



Progress made in Albania

a) River Devoll Diversion.

SPP (Greece) and PPNEA (Albania) carried out a study (2005-6) on the interaction between Lake Micro Prespa and River Devoll.

- Excessive inflows (late winter to early spring) for 25 years from the Devoll river
- Massive abstractions ($20\text{-}30*10^6 m^3$) in summer for irrigation of the Korcha plain

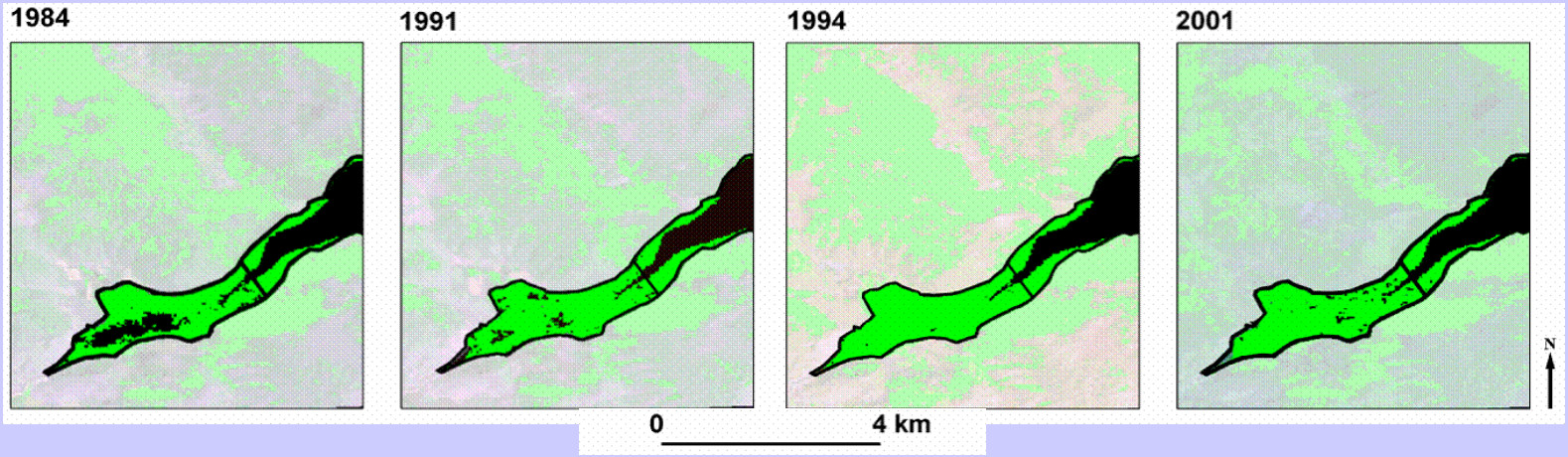
→

- Extensive siltation of the southern very shallow parts of Micro Prespa
- Strong water level fluctuations which disturb fish spawning

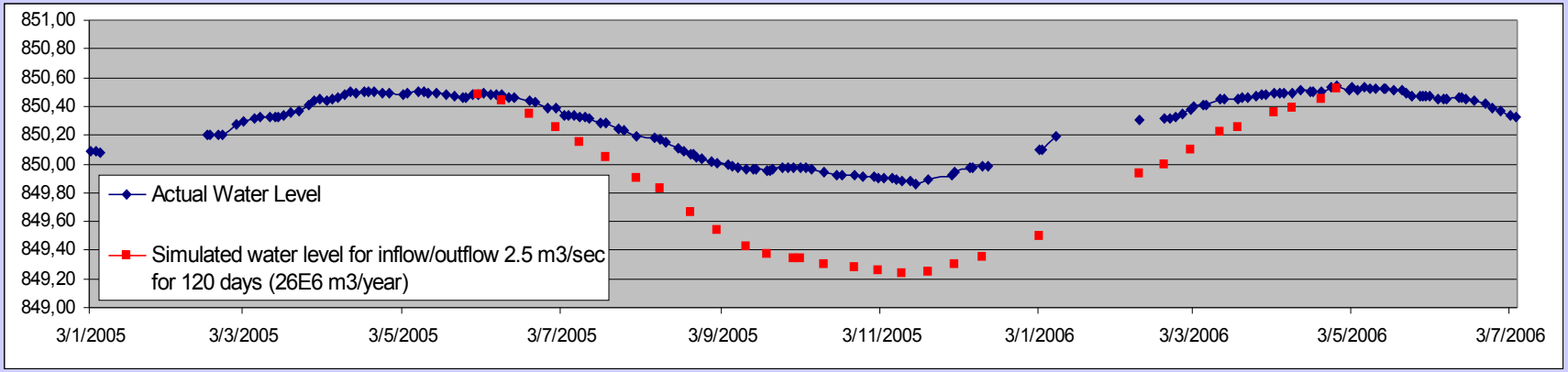
Since 2002 diversion of the river flow, as well as abstractions, have been ceased,

but

still there are requests/plans for rebound.



Evolution of emergent vegetation in the south part of Micro Prespa due to siltation.



Impact of Devoll diversion and water abstractions on Micro Prespa water level in the years 2005 and 2006.

Progress made in Albania

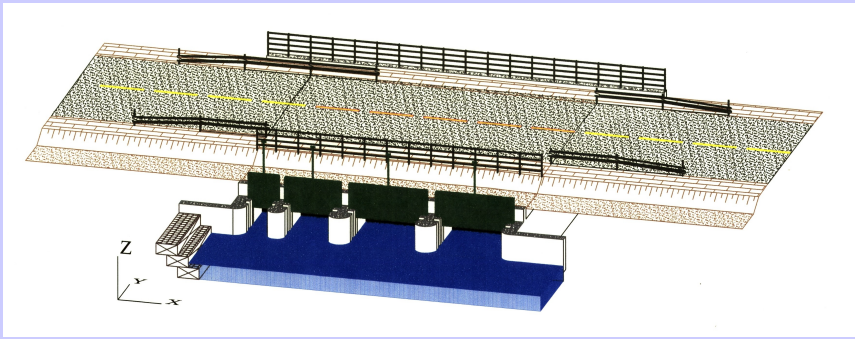
b) A large project is under implementation in the direction of reforestation on the Albanian side of the Prespa catchment basin. The project is funded by the German Bank of Reconstruction (KfW).

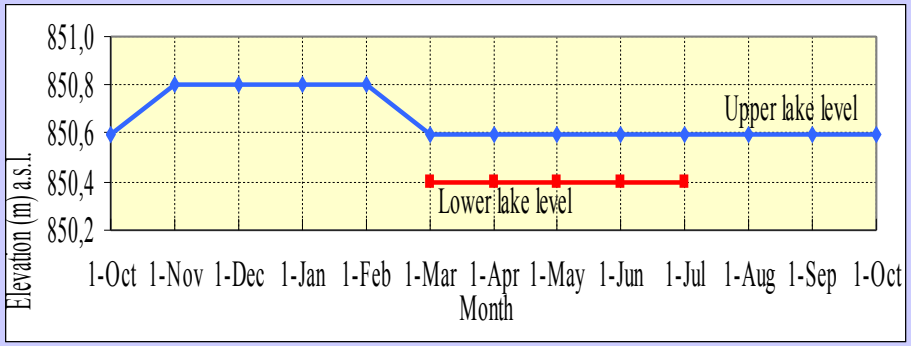
Suggested Activities in *Greece*

- Implementation of the optimum water level of Micro Prespa
- Analysis of: the water characteristics, the impact of activities on the quantity of water and the water use economics
- Rational use of fertilisers.
- Control of washing the sprayers in the streams and lakes.
- Promotion of environment-friendly cultivation methods
- Provision of information to the farmers on the use of pesticides.
- Organisation of an effective waste collection system and cessation of uncontrolled dumping of solid waste
- Connection of all villages to sewage networks. Establishment of wastewater treatment plants (WWTP) (preferably decentralised, land based, e.g. constructed wetlands)

Progress made in Greece (a)

Since 2005 lake level is controlled successfully by operating the new sluice gates at Koula (constructed in 2004).





The upper limit satisfies farmers' demand to avoid flooding or poor drainage of their land.

The lower limit safeguards sufficient wet meadows, successful fish spawning and protection of bird nests from predators.

The optimum lake level is the upper level limit with min perturbations

Progress made in Greece (b)

Efforts at implementation of the WFD in Greece have been ongoing for the past few years.

But a comprehensive analysis of :

- The water characteristics
- The impact of activities on the quantity of water and
- The economics of the water use

has not been carried out so far

Progress made in Greece (c)

- Rationalisation of the use of fertilisers and agrochemicals has been tried through the application of a system of Integrated Protection and Production involving farmers organised in a producers' group.
- A scheme for environment-friendly cultivation methods is in its second year of implementation and run by the Management Body of the Prespa National Forest.
- The problems of the washing of sprayers in the streams and lakes and the uncontrolled disposal of agrochemicals' packaging still remain.

In addition

- Funding for the change of the irrigation system from surface to drip, which would have a considerable positive impact on Micro Prespa lake, has been recently pledged at Ministerial level.

Progress made in Greece (d)

Solid waste is collected and disposed by the Municipality

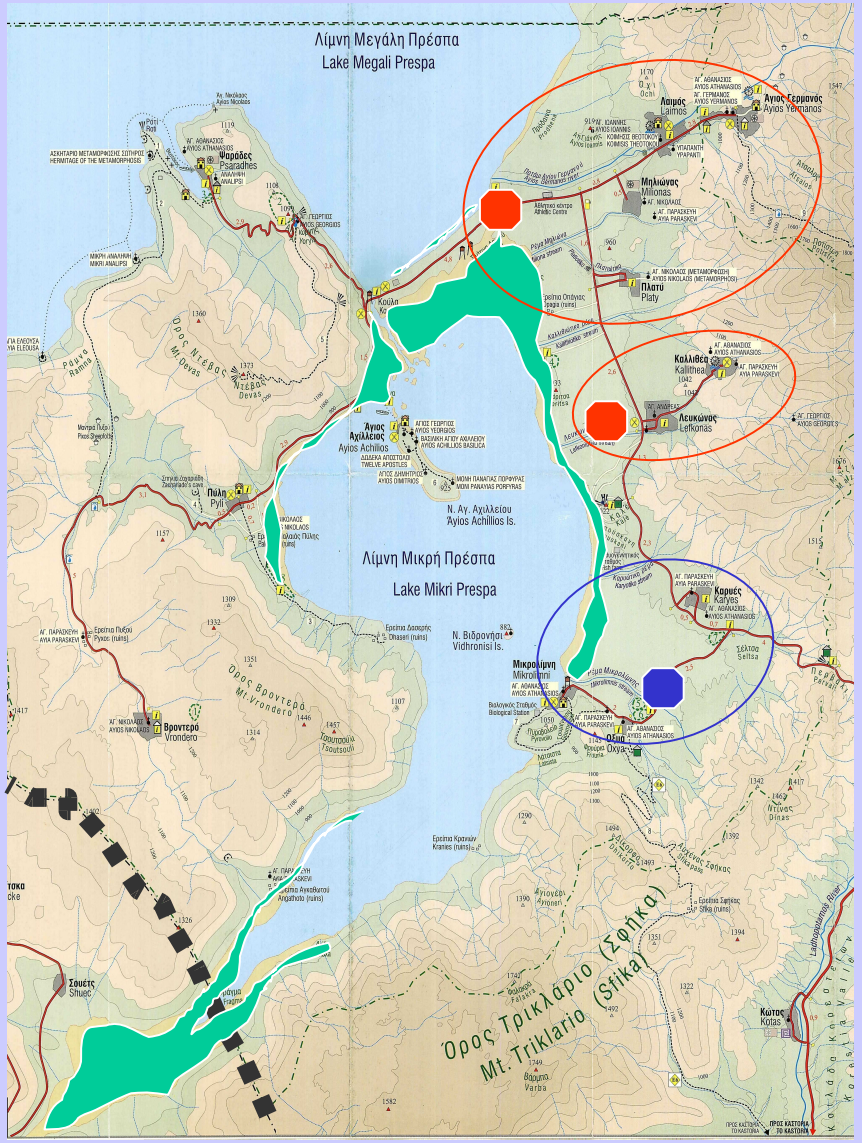
but

uncontrolled dumping is still present.

Progress made in Greece (e)

Two decentralised (constructed wetlands) are under construction covering 85% of the Greek Prespa population.

Another one WWTP is under study



Suggested Activities in *FYR of Macedonia*

a) Implementation of a programme to restore the water quality of Golema Reka River

c) Control of the excessive use of fertilisers in the fruit yards

e) Control of the dumping of pesticide packaging in the Golema Reka River

g) Connection of all settlements and villages to sewage networks and establishment of small WWTP.

Progress made in FYR of Macedonia (a)

- A project has been carried out for the past two years for the “ecological restoration” of Golema Reka, implemented by UNDP with Swiss Development Assistance funds.

- A comprehensive study has been produced but the actual works under way are related to flood protection and to rehabilitation of the regulated urban part of the river.

Progress made in FYR of Macedonia (b)

- The control of the excessive use of fertilisers and agrochemicals in the cultivations is the objective of a GEF project activity. This is organised through capacity-building and training of the local farmers on Good Agricultural Practices.

- An agrochemical lab and an agrometeorological station in the area has also been established (UNDP project).

Progress made in FYR of Macedonia (c)

Control of the **dumping of pesticide packaging** in the Golema Reka River and the agricultural area

is one of the objectives of the GEF project under implementation

but

no specific action has been undertaken yet.

Progress made in FYR of Macedonia (d)

- The Resen urban centre and some neighbouring villages (approx. 55% of the population) are already connected to a sewage network that ends up in the Ezerani WWTP operating since May 2005 (built with KfW funds).

- The Prespa GEF project is planned to demonstrate the feasibility of small-scale wastewater units by establishing one pilot facility to serve some of the remaining villages

Conclusions

The dark side

Actual transboudary water management has not yet been achieved	There is not yet a collaborative structure of the water management authorities from the three states that will organise and lead such a process
Major problems remain unsolved	❑The water level drop of Macro Pespa ❑The issue of Devoll diversion and abstractions to cover needs outside the PP catchment

The bright side

Progress has been made on many specific issues

Mainly construction of infrastructure works

Involved countries continue collaboration efforts despite difficulties

It is expected that in the following years notable institutional as well as technocratic progress will be achieved for sustainable water management in the Prespa Park basin.

Thank you for your attention