
The Pfälzerwald–Vosges du Nord transboundary biosphere reserve

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Abstract: Transboundary Biosphere Reserves (TBRs) have the great potential to facilitate a more integrated and coherent approach to the management and sustainable development of a landscape across borders, in ecological, socio-economic, cultural and political terms. The transboundary perspective offers dialogue and action that can transcend politics and help resolve long-standing and highly complex problems affecting both sides of the border. The case of Pfälzerwald–Vosges du Nord TBR shows how successful transboundary initiatives and actions can be but also how this good practice is fragile in terms of sustainability. The political framework of TBR projects will have to be altered to the extent where the time aspect, the regional and the qualitative perspective and the human factor will be given more flexibility. Concurrently, UNESCO's Man and the Biosphere (MAB) Programme and the respective MAB national committees must increase the support of the establishment, management and review of TBRs as well as the networking between them.

Keywords: confidence-building; forest management; fragmentation; intercultural communication; mind-set; open process; project-sustainability; qualitative evaluation; self-reliance; shared ecosystem.

Reference to this paper should be made as follows: Stein, R. (2008) 'The Pfälzerwald–Vosges du Nord transboundary biosphere reserve', *Int. J. Environment and Sustainable Development*, Vol. 7, No. 2, pp.156–169.

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1 Introduction

In 2007 ‘Waterton-Glacier International Peace Park’ celebrated its 75th Anniversary.

Meeting at the border between the USA and Canada, the two national parks ‘Waterton Lakes’ (Canada) and ‘Glacier’ (USA) in 1932 were designated as the first international peace park, thus forming the first transboundary protected area in the world.

In December 1995 the International Peace Park was designated as a joint World Heritage Site.

Both national parks are UNESCO biosphere reserves. Until now they have not applied for official recognition as a Transboundary Biosphere Reserve (TBR). Both biosphere reserves were created in the 1970s, long before the Seville Strategy came up in 1995. They both lack the third zone, the transition zone, which, since the international conference of Seville, is one of the core requirements for nomination and recognition of a biosphere reserve.

Although they started to establish some areas which they call ‘zones of cooperation’, they find it rather hard to officially establish large transition zones around the buffer zones, although the work which has been done from 1932 until now is extremely impressive and an outstanding example of good practice, good governance and sustained continuity and progress.

TBRs can be established by joining different categories of protected areas of two or more different countries. They add new dimensions and values to the original protected areas they were made of. The cross-border dimension makes it even much more complex.

In other words: the zonation system, the world network, the periodic review, the active stakeholder and local community involvement, the joint management of a shared ecosystem and, last but not least, the integration of biodiversity conservation, sustainable development and cultural heritage, makes them unique. They are very special places, deserving more international attention and support.

TBRs provide a concrete means of addressing international obligations such as Agenda 21, the Convention on Biological Diversity, the Millennium Development Goals, the Plan of Implementation of the 2002 World Summit on Sustainable Development and the UN Decade of Education for Sustainable Development.

Only recently politically recognised issues like climate change and global warming can be addressed in very complex, multidimensional and interactive ways in TBRs.

The participants of the first ‘International Conference and Expert Workshop of TBRs’, carried out in ‘Pfälzerwald – Vosges du Nord’ TBR, in 2004, put their common vision into the ‘Message from Edesheim’:

“(…) TBRs provide a framework for international cooperation and represent commitment of two or more countries to jointly protect and take care of the cultural and natural heritage of neighbouring regions. TBRs provide space and opportunities to practice partnership across borders, tolerance and peace building. There are chances to learn from each other instead of competing on differences (…).”

2 TBRs – a new vision in times of globalisation

The concept of TBRs is comparatively recent, fitting perfectly within the context of the key areas of UNESCO’s mandate for the future of the planet; to promote dialogue

between states and people and to foster international harmonisation of the relationship between people and the biosphere, which is crucial.

Robertson and Jardin outlined that:

“(...) the added value of TBR designation includes the (...) acknowledgement of the role of TBRs for implementing international agreements across boundaries; and finally a means to secure peaceful relations and scientific cooperation between neighbouring countries” (Breymeyer and Adameczyk, 2005).

In 2000, at the Seville +5 International Meeting of Experts (UNESCO, 2001) in Pamplona/Spain, an ad hoc task force on TBRs elaborated a set of recommendations for the establishment and functioning of TBRs, which was accepted by the International Coordinating Council of the Man and the Biosphere (MAB) programme.

The 2003 World Parks Congress drew particular attention to transboundary cooperation focusing on protected areas that straddle international boundaries. Likewise CBD’s Seventh Conference of the Parties (COP 7) incorporated and endorsed a wide range of objectives and recommendations particularly promoting transboundary conservation and transboundary protected areas.

The growing interest in transboundary cooperation emphasises the role of UNESCO, which is at the heart of its mission towards international cooperation to promote peace and mutual understanding. Furthermore, the role of biosphere reserves in bridging goals on either side of the border linked to shared ecosystems, intercultural communication, conflict prevention, joint resource management and education for sustainable development is gradually calling to the centre-stage the work of the World Network of Biosphere Reserves within UNESCO’s programmes.

In 2004 the first International Conference and Expert Workshop of TBRs clearly expressed the sentiment felt from the participants from more than 25 countries in Africa, Asia, Europe and Latin America:

“... that Transboundary Biosphere Reserves in their daily work implement to a high extent the various aspects and tasks of UNESCO’s overall mission in its full complexity” (Stein et al., 2006).

Presently, there are eight officially recognised TBRs worldwide with five in Europe, two in Africa and one intercontinental, between Spain and Morocco. In addition to an impressive number of TBR-initiatives on four continents, Pfälzerwald–Vosges du Nord TBR was the first to be designated in the European Union and is the only representative in Western Europe so far.

3 The cross-border biosphere background

Forming the largest uninterrupted tract of temperate broadleaf forest in Western Europe, Pfälzerwald–Vosges du Nord TBR really makes a difference in a world of dramatically declining forests and increasingly overexploited forest products. A total of 75% of the TBR’s 310,000 ha is covered by sustainably managed Pan-European Forest Certification Council (PEFC) certified forest (Figure 1).

Figure 1 The largest uninterrupted forest in Western Europe – an example of good practice to the world community



Source: Roland Stein.

IUCN's regional office for Europe acknowledges 'model concepts for forest management':

"(...) fulfilling this aim has meant taking a broad approach. Principles of sustainability have been applied not only to basic timber production, but also to the development of model initiatives regarding the use of local timber, renewable energy schemes, and forest-based recreation activities" (IUCN, 2004).

The biosphere reserve is managed by two separate entities, the Pfälzerwald Nature Park on the German side and the Vosges du Nord Regional Nature Park on the French side. Both managing/administrative bodies are non-governmental and built on membership-structures that mainly represent a bottom-up approach in terms of strong and active participation of rural, urban and district communities, non-profit nature conservation associations, regional federations and other local and regional stakeholders. Long-standing cooperation with the governmental forest management and nature conservation administrations enable the TBR managers to get basic financial support for their respective national tasks and duties.

As far as the transboundary cooperation is concerned, they rely mainly on the funds matched by the European Union (INTERREG, LIFE). Unfortunately, no specific budget-line has yet been established that is, without the 50% of cofunding by the European Union (which is always restricted to a period of about three years), most of the transboundary projects would not be possible because there is no regular set sum of funds for transboundary work which is independent of EU-funding.

The area is inhabited by more than 300,000 people living in 260 local communities. Many of the local people are forced to commute to the economically well-developed, nearby valley of the river Rhine in order to find employment. Unemployment rates rise up to 16% in the western part of the reserve.

The shared natural heritage encompasses a huge massif of Triassic coloured sandstone with a predominant forest cover, forming a low mountain range with a diversity of ecosystems and habitats. They range from close-to-nature temperate mixed forests with dense, deciduous vegetation, anthropogenic grasslands, dwarf-heathlands, traditional orchards and oligotrophic meadows, to freshwater-ecosystems, bogs and mires and, last but not least, towering red sandstone rocks. More marginal, but still with great impact, urban-industrial and agro-industrial ecosystems can also be found, especially along the eastern fringe descending towards the valley of the river Rhine where semi-urban and urban-industrial agglomerations extend.

Biodiversity mainly builds on nature forest reserves, strict nature reserves and extensively managed areas in the buffer zones. In addition to a comparatively rich flora with even subboreal relic species, the fauna consists of border-crossing flagship-species like for instance the lynx (*Lynx lynx*), the peregrine falcon (*Falco peregrinus*), the wild cat (*Felis sylvestris*) and various bat species as well as a wide range of species that depend on mixed forest ecosystems and ecotones, and that of invading submediterranean species driven by global warming and climate change.

Most of the land has been used more or less intensively from the neolithic to the present day resulting in a large-scale cultural landscape (IUCN Category V) with relatively small clusters of semi-natural and natural landscapes and sites (IUCN Categories 1a,b, III and IV).

In terms of the shared cultural heritage, the diversity ranges from mesolithic and neolithic excavations, Celtic, Germanic and Roman sites, medieval rock-castles, churches and monasteries to elaborate half-timbering and coloured sandstone architecture along the famous wine-route.

It should be noted that from a historical point of view the TBR lies in a border area where armed conflict and war had a strong impact on local people. In the period between 1870 and 1945 alone the German and French inhabitants fought each other in three cruel wars. Peaceful cooperation does not yet have a long tradition!

4 How sustainable can good practice be?

There is a couple of TBR success stories and examples of good practice, real showcases for the interested international public, milestones on the way to becoming an international model region. But, the crucial issue is: how can we make all this good practice become sustainable in itself? How can we avoid short-term oriented 'flashlights' and short-lived 'shooting stars' as favoured by politicians and donors?

4.1 Forest management, forest products and forest conservation

Since the beginning of the 1990s the German and the French forestry administrations in the TBR region have started a process of mutual approachment and exchange resulting in very similar 'close-to-nature' forest management and silvicultural systems. When crossing the border the once existing fundamental differences are hardly noticed. However, the positive impacts on biodiversity, ecological corridors and zonation are visible. Furthermore, the administrations designated a transboundary area of 400 ha to become a joint cross-border nature forest reserve forming the first transboundary core area of the TBR. Joint research and monitoring is taking place and joint programmes of

nature interpretation and environmental education are evolving. The project is steered by a joint committee of German and French stakeholders in conjunction with the TBR managing bodies and the forestry administrations. Generous EU-funding completes the circle of success.

As a complement, German and French foresters, biosphere reserve managers, private enterprises and rural communities together created a transboundary project aimed at the promotion of locally grown, PEFC-certified wood for renewable energy scheme purposes, especially for large-scale heating systems. This transboundary ‘public–private partnership’ is the first of its kind since the TBR was established in 1998.

4.2 Rural markets and regional produce

Starting in 1997, with initial funding from the European Union, the transboundary rural markets have become a real highlight attracting more than 10,000 people on market day.

Over 50 German and French regional producers sell their produce, emanating from organic agriculture and bio-certified land-use in the TBR, to a growing number of consumers who are ready to spend more money on high quality products that are environmentally friendly and whose sale enables the producer to sustain agriculture in an area that has seen this land-use system dramatically decline over the last 50 years.

The added value of this very successful project is legion: it is the transboundary character, the different neighbouring foodstuffs, the complementarity of offers and the notion of friendship and solidarity which confers a special identity in the form a specific label to those markets. The impacts are obvious: economic incentives for small-scale businesses, ecologically sound land-use and resource management, and the preservation of traditional knowledge and skills.

The entire market operates completely independently from EU-funding and assistance from the two TBR managing bodies. What began as an initiative by biosphere reserve managers and farmers is now exclusively run by a group of transboundary producers who regularly meet and organise everything themselves. This is exactly the way projects should develop – by being self-reliant (Figure 2).

Figure 2 The transboundary rural markets – how quality food, biodiversity and sustainable land use are interrelated



Source: Helmut Schuler

4.3 *The cross-border lynx-network*

The few remaining lynx in the TBR are severely threatened with extinction because of poaching, habitat-fragmentation and road mortality. Under the initiative of hunters, foresters, nature conservationists, scientists and protected areas managers a cross-border working group on the protection of the lynx was established aimed at the implementation of transboundary measures against the loss of the protected species.

In the course of only five years the group has succeeded in setting up a German-French network of lynx specialists who regularly participate at joint training workshops, exchange data and carry out long-term monitoring. Furthermore, they offer their expertise free of charge to the local population and in particular to the affected stakeholders and interest-groups, for instance shepherds, hunters, hikers and farmers. In 2006, German and French specialists went together on a study-tour to the French Jura where they had the opportunity to learn from a highly advanced and renowned lynx monitoring-system.

The survival of the lynx and other endangered or rare mammal species in the TBR such as the wild cat, badger, hare or the red deer depends, to a large extent, on the construction of large-scale green-bridges, these are specific bridge-constructions across highways, designed for wildlife-crossing, reducing wildlife road-mortality and improving connectivity. These bridges may connect corridors that were previously cut by roads thus causing barriers. These green-bridges will traverse the biosphere reserve as well as establish and defragment transboundary corridors. In this respect, the underlying quality of the transboundary initiative can be an important incentive for road planners on either side of the border to give up their one-sided, purely 'national' perspective and demonstrate to others that they can achieve more together with their neighbours. Not least because the initiative has created a lot of awareness on the necessity to perceive the TBR as a shared ecosystem in which the survival of many species and habitats depend on the close cooperation of the key players on both sides of the border.

Furthermore, as a result of a coorganised international symposium on lynx survival, which took place in January 2006, the initiative succeeded in getting the full support of all the experts from more than ten European countries as well as the attention of adjoining areas like the Central and Southern Vosges (France), the Jura (Switzerland and France) and the Black Forest (Germany). These areas are potentially major habitats of an internationally interconnected system for the lynx from a genetic point of view and thus enable populations to disperse and survive. Without this challenging long-term strategy an isolated and small population of lynx cannot survive in the TBR.

5 **Fostering all-age intercultural communication**

The transboundary cooperation in the TBR was intensified thanks to EU-funding. In the meantime we have seen 15 years of support with the partners reaching a new level of active participation and involvement. Initially, project initiatives and ideas came exclusively from the two managing bodies of the TBR. Since 2004, in the framework of INTERREG IIIA funding from the European Union, 16 different partners are cooperating with the two nature park administrations thereby placing the transboundary cooperation on a broad and solid platform of interest and commitment.

5.1 *Playing in a forest without borders*

One eye-catching example is the joint project ‘Forest without borders’ where primary-school pupils, their parents and teachers join in cross-border, forest-based games in the course of one full day. As a bilingual exercise, they have to interact with all the different age groups in German and French while together fulfilling specific tasks, resolving problems and exploring the forest and its inhabitants. In doing so, they will be able to identify the cultural differences (and similarities) among the communities across the border resulting in a more open-minded and respectful viewpoint with individuals who begin to view the cultural and linguistic difference as an enriching experience, making life much more interesting and providing greater options.

The games are carried out several times a year and gradually address all the primary schools in the rural border communities, including the new target group of nursery schools situated along the border. This initiative is embedded in a strategy of mid-term oriented multiplication (Figure 3).

Figure 3 Old and young jointly exploring and appreciating the common natural heritage: the cross-border game ‘forest without frontiers’



Source: Naturpark Pfälzerwald.

5.2 *The ‘human factor’*

We sometimes forget the ‘human factor’ behind the management effectiveness, long-term success-stories and sustained good practice in the field carried out by the TBR management who initiate, implement and follow-up actions that demonstrate all the cultural, social, linguistic, political and power-related dimensions that these facets imply. Add to this the majority of obstacles and problems faced in our daily work caused by our colleagues and counterparts, stakeholders and politicians.

There are inspiring examples of TBRs that function correctly in situations with low budget availability yet there are examples where others obtain a considerable amount of money from various donors and do not generate as many positive results. What are the reasons behind this?

Even the most sophisticated technical equipment cannot replace good human relationships and field experience acquired with others in an open process of discussion, interaction and mutual understanding. Such a process requires time, specially trained staff, people-oriented extension workers who listen and are genuinely interested in the needs and ideas of stakeholders and local communities. Last but not least, success depends on personal continuity and consolidated relationships. In fact, the process is facilitated if it receives full recognition as a core task and main activity within the context of a professional TBR management ethos.

In the Pfälzerwald–Vosges du Nord TBR a project was begun to bring people together from both sides of the border so as to create opportunities and meeting places for stakeholders with different backgrounds and different interests to spend one full day together, even a full weekend on some occasions. Joint study-tours either within the biosphere reserve or outside the TBR are organised in order to learn from other projects and situations. Mutual learning and the sharing of benefits and experience are among the main pillars of this activity. This leads to an atmosphere of confidence-building, consideration and mutual respect.

6 Sharing knowledge and experience in a world network

6.1 The International Conference and Expert Workshop on TBRs 'Following-up on Seville +5' in 2004.

In 2004, the Pfälzerwald–Vosges du Nord TBR administration invited experts from Africa, Asia, Latin America and Europe representing 25 countries to participate at the first international conference and expert workshop on TBRs as a follow-up of the Seville +5 expert meeting in 2000 where the recommendations for TBRs were elaborated (UNESCO, 2001). The conference was supported by UNESCO-MAB.

Over 150 participants attended the conference as well as all six officially recognised TBRs and an impressive number of TBR-initiatives from around the world. A total of 40 foreign guests stayed on and joined the subsequent expert workshop on the future development of TBRs in the framework of the World Network of Biosphere Reserves.

In their 'Message to the UNESCO-MAB Programme', the workshop participants concluded that:

“(...) at this point, the UNESCO-MAB Programme needs to increase the support of the establishment and the management of TBRs and the networking between TBRs/TBR-initiatives with a clear distinction between the BRs (biosphere reserves) and the TBRs” (Stein et al., 2006).

The proceedings are now available (Stein et al., 2006) (Figure 4).

6.2 Serving as a model of good practice

The idea that TBRs can serve as international models of good practice is evolving. Pfälzerwald–Vosges du Nord TBR has the frequent pleasure to welcome foreign visitors and experts from various countries, institutions and initiatives, ranging from the Republic of Korea, China and Vietnam to Portugal, Poland and Belarussia. They come to exchange ideas, seek advice, provide an input of valuable ideas and evaluate the truthfulness of publications on its success. This form of interaction and dialogue renders

the ‘TBR’ experiment vital and authentic. Furthermore, it makes the local people proud of their native land as they begin to realise the very special nature of their environment. Finally, the encounter between ‘locals’ and ‘outsiders’ often has the desired effect of enlightening people (Figure 5).

Figure 4 Participants from more than 25 countries joined the 2004 TBR conference and expert workshop in Fischbach and Edesheim/Germany



Source: Naturpark Pfälzerwald.

Figure 5 The deputy-minister of unification of the Republic of Korea visits the German-French TBR



Source: Suk-Kyung Shim.

6.3 Establishing TBR partnerships

A quite recent development is the establishment of partnerships among biosphere reserves. A partnership has yet to be established among TBRs. Karkonosze–Krkonose TBR (Poland–Czech Republic) and Pfälzerwald–Vosges du Nord TBR took the initiative and started setting up a framework of partnership and multilateral, four-way cooperation. Together they will sign an agreement, elaborate the baselines of cooperation and determine an agenda of joint future activities. In 2006, a small German-French delegation went to Karkonosze–Krkonose and met the Polish and the Czech director, as well as the transboundary coordinator and some of the field-staff. At present the initiative is pending.

6.4 Recent developments

- The 2006 International ‘Wasgau Border Forum’ addressed the issue of ‘Biodiversity conservation and environmental education’ and was jointly organised and carried out by the staff of the TBR.
- Elaboration of a new mutual agreement between the two managing bodies, including the creation of a joint coordination secretariat, the designation and approval of specific ‘transboundary’ budget-lines, the investigation of possibilities to create a joint managing body, the review of the present national zonation systems for the sake of a future joint zonation system, and the elaboration of a joint mid-term action-plan. The agreement will be signed in 2008.
- The preparations for a EU-funded INTERREG IV transboundary project-package are running. Some of the core topics will climate change, global warming, connectivity, transboundary corridors and the pedagogical work with children and young people be.
- In summer 2008 a trilingual (E/F/G) information leaflet, with a brandnew joint logo (Pfälzerwald and Vosges du Nord) will be released in order to inform international guests, experts and colleagues about our TBR.
- In summer 2008 a joint bilingual pocket-guide on the TBR and its natural and cultural heritage will be published.

7 Future challenges

Despite the above mentioned success stories and examples of good practice, Pfälzerwald–Vosges du Nord TBR will have to face a number of crucial issues that may evolve in the near future. Problems and threats will reveal whether the transboundary cooperation is truly sustainable in the strict sense of the term. The main challenges faced are:

- *Uninformed and trend-oriented attitudes of politicians and stakeholders:* many of the ‘local heroes’ are mostly interested in short-term revenues and non-sustainable economic activities that impact on the natural environment. Frequently their understanding and perception of ‘development’ is limited to the conversion of natural ecosystems coupled with increasing fragmentation and

habitat loss. At the same time they complain about the demographic change taking place in the western part of the TBR. They fear a decline in population growth without recognising the potential for new opportunities and alternative scenarios. A major effort in the future is needed to draw their attention away from sheer quantitative aspects of development towards 'quality of life'.

- *An incomplete UNESCO-MAB framework for TBRs:* Pfälzerwald–Vosges du Nord TBR was officially recognised by UNESCO in 1998. Consequently, a joint periodic review will have to be carried out in 2008. As yet, neither the MAB secretariat nor the MAB National Committees of Germany and France have started to develop well-defined criteria for such a joint evaluation of the TBR. The joint periodic review has been announced since 2004 but unfortunately neither the know-how nor process has yet been thought-out and initiated. Moreover, some representatives of the two MAB National Committees continue to talk about Vosges du Nord Biosphere Reserve or Pfälzerwald Biosphere Reserve when clearly these biosphere reserves do not exist as separate entities since 1998. Furthermore, it has to be noted that bottom-up initiatives relating to the elaboration of review procedures and criteria, which come from TBR practitioners, are not always welcome and often ignored. An interesting new development (and worth mentioning) is that the MAB Secretariat, together with the German and French National MAB Committees and the two managing bodies of our TBR, in December 2007 carried out a workshop on how to move forward with the 2008 joint periodic review of our TBR. It will be the first joint periodic review of a TBR worldwide, which has great significance for the other seven TBRs and for the elaboration of joint review criteria, which do not yet exist. Traditional mind-sets will have to change if we are to move forward.
- *Uncoordinated and unmanaged tourism and visitor development:* in many minds today nature does not appear to have value in itself to the point that without 'added value' or being 'developed' by humans it loses its right to exist. Even core areas of the TBR are increasingly threatened and impacted today. Neither the operators of 'adventure tourism' and 'wilderness trekking' nor the representatives of mountain bike associations appreciate the need to respect at least the 1.8% of the total TBR area preserved as core areas, which have witnessed limited human impact and contain climax- or emerging ecosystems where natural processes predominate over human-induced ones. In order to face the increasing anthropogenic pressure on the most important centres of biodiversity conservation, feasible and well-coordinated transboundary concepts for visitor management and environmental education-oriented ranger services, built on the guidelines and findings of EUROPARC's 'European Charter for Sustainable Tourism', are clearly missing.
- *Staffing, funding and performance-perception in times of shrinking budgets:* the national staff of the two managing bodies of the TBR is overloaded with 'national' work and habitually rejects additional tasks related to transboundary projects. Apart from the German TBR coordinator, there is no staff working exclusively within the framework of German-French cooperation. If active stakeholder and local community involvement is to become more than just lip-service, then the TBR administration desperately need proper mid-term budget lines for the transboundary projects, independent from European Union funding, enabling them to recruit specifically trained staff who can allocate all

their time to transboundary cooperation and the interaction with people 'in the field'. Also, the budget decision-makers tend to perceive task performance and project implementation on a purely short-term, quantity-oriented dimension, which is counterproductive in a situation where transboundary complexity can only be dealt with appropriately if people become interested in slowly evolving processes of qualitative change and improvement.

8 Conclusion

Like the seven other TBRs in Africa and Europe, Pfälzerwald–Vosges du Nord TBR has the real potential to become a well-balanced, international model for transboundary cooperation, nature conservation and sustainable development within the framework of the World Network of Biosphere Reserves. So far, it has been an experiment with many success stories but it has also had its failures with various future threats and problems. Still many key players in the TBR, as well as at the national and the international level of UNESCO-MAB, do not fully recognise or appreciate the multifaceted potential, the added value and enormous opportunities that TBRs reveal and represent in an interdependent world of resource-consuming globalisation, religious tensions, cultural alienation and armed conflict, as land areas shrink under the increasing number of humans vying for space.

Support from all sides and from all levels whether local, regional, national or international is needed more than ever before so as make the vision of TBRs an obvious reality in many countries throughout the world.

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